GLOBAL PATENT SOURCES

An Overview of International Patents

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1 About this manual

This manual is designed to support the information needs of a wide range of Thomson Scientific product users, from patent attornies to technical information specialists and scientists. Moreover, Thomson Scientific users can typically be individuals who have never seen a patent, to those whose job it is to examine and grant patents.

With this in mind, this manual is divided into five main parts. Section 2 is designed for users unfamiliar with Thomson Scientific and patent documentation answering the following types of questions that new users typically ask:

- What is the structure of the patent specification?
- Why are patent citations important?
- How is the international patent classification used?
- What is the difference between the priority application and an application?

Section 3 is designed to answer basic questions about the sources from which Thomson Scientific derives its patents products, as well as detailed information about how Thomson Scientific treats patent documents. Thomson Scientific has covered a total of 42 patent-issuing authorities and two literature sources (Argentina was covered briefly from 1974-1976).

Section 3 is designed to answer questions such as:

- In what language will the patent specification be available?
- How long are patents in force?
- Is the country a member of EPC and/or PCT and since when?
- What "kind of document" does Thomson Scientific input?
- How does Thomson Scientific modify data such as application numbers, etc.?

It is recommended that users review the legend that explains the details included for each source, in order to understand what is provided. The legend can be found on page 53.

Section 4 is an overview of the Thomson Scientific system of producing patents products, as well as a general overview of the resulting products and services. The goal of this section is to give the user a general understanding of how Thomson Scientific works, in order to facilitate interpreting Thomson Scientific data. Section 4 is designed to answer questions such as:

- What is a Thomson Scientific Update?
- How does Thomson Scientific determine Basics and Equivalents?
- What are the Thomson Scientific data elements?
- How does Thomson Scientific index technologies?

2 Introduction

2.1 Introduction to Thomson Scientific

The creation of new technologies and industries, as well as the encouragement and growth of commerce, is vital to the economic development of nations. The success of which depends not only on the ingenuity of engineers, scientists, and inventors, but also on the investment necessary to develop new ideas and set up new enterprises, coupled with the ability to market them effectively.

Patent rights play an essential role in our global economy. They give legal recognition to the owner of new inventions, providing them with legal authority to stop others from benefiting from their ingenuity and, ultimately, their market share.

Patents are intended to provide an incentive to devote resources to technological change; and in exchange, society benefits through the dissemination of knowledge from which new technologies and markets can evolve. Virtually all nations grant patents and many are members of the International Convention. This convention, or Union, widens the geographical scope of individual patents enabling innovators to create quickly a global market for their invention. It also creates a network of the world's patent systems from which economic infrastructures are inter-linked.

Thus, **patent information** is a vital resource for industry. The retrieval of relevant intelligence from this wealth of data from literally millions of documents becomes the challenge. Because of the multi-national nature of the patent documents and international trade, patents are a global resource and retrieval should not be limited to any one country.

Thomson Scientific, the leading specialist in scientific and patent information, has for over 50 years provided vital information to companies and research institutes across the world.

Derwent World Patents Index® (*DWPI*℠) is unrivalled in its comprehensive, enhanced patent information covering more than 14 million separate inventions from 41 patent-issuing authorities including the USPTO, WIPO, EPO, Japanese, and German patent offices.

Thomson Scientific's products are designed to meet the needs of not only the major multi-nationals, but equally importantly, to fulfil the information demands of smaller, more specialised organizations.

Used by a global audience, Thomson Scientific's information products give a comprehensive picture of technological innovations world-wide – providing critical advantage by highlighting new opportunities, identifying competitors, and assisting R&D.

As part of the Thomson Corporation, Thomson Scientific works closely with global leaders in the information industry to guarantee customers access to unequalled business and technological intelligence.

Use Thomson Scientific's products to monitor:

- The global activities of your competitors.
- R&D trends worldwide.
- Technological advances in your field.
- Potential gaps in the marketplace.
- The novelty of your company's inventions.
- Infringements of your patents.
- The extent to which an invention has been protected

To obtain more information about how to quickly gain electronic access to patent information produced by Thomson Scientific, please contact your local Thomson Scientific office. Details can be found at:
www.scientific.thomson.com/contact

2.2 Patents as an information resource

The publication of patent specifications is an essential feature of the patenting process throughout the world. *DWPI* includes in excess of 30 million patents that have been published so far, and each year adds one million new patent specifications. This makes patents the largest single body of technological information available anywhere. Listed below are some of the advantages of using patent information.

Table 1 Advantages of using patent information

Currency of data	The publication of a patent application is often the first time that the invention has ever been made known. In order to secure patent rights, the details of an invention have to be kept secret before a patent application is submitted.
Exclusivity of information	Studies have shown that 70-90% of the information in patents is never published anywhere else.
Citations intelligence	Many patent documents include search reports prepared by examiners from the patent office where the application was filed. These reports may cite similar patents and other related literature found in a search on the subject matter of the invention. Such supplementary information can be used to provide more background on the development of a particular technology.
Full and practical descriptions	The text of a patent specification must have sufficient detail and include illustrations so that an expert specialising in the same field can re-create the invention.
Availability of translations	An application must be made in every country in which patent protection is sought and written in the language prescribed by law. This means that the technical content of a patent may be available in a familiar language.
Ease of comparison	Although there are exceptions, patent specifications have become standardized in their layout. This feature saves time when reviewing documents, or locating specific sections of foreign language patents.

2.3 Uses of patent information

The utilization of patent information should be the cornerstone of any strategy to implement a new technical innovation from the research lab to the marketplace. The invention whose lifecycle is partnered with patent information has the key to staying in the game.

Table 2 Uses for patent information in the R&D flow chart

Pre-research stage	To see if someone else has joined the race, someone else has taken the same approach or the concept has already been mentioned in another patent
Development stage	To exhaustively search for anything remotely similar which might be cited by a patent examiner or to repeat the research stage patent search aims
Post -filing, -examination and -grant stages	To watch for signs of [potential] imitators/infringers, the emergence of competitors attracted by the new market or new uses for patented technology through citation analysis

In general, the uses for patent information can broadly be summarized as follows:

- *Current Awareness*
  Since patents are often the first, or even the only, source of information on a technological advance, they are an invaluable source of up-to-date intelligence.

- *Avoiding duplicated effort and infringement*
  An R&D concept may already be protected by a patent, or patent protection may have expired so that the invention is available for use. Searching worldwide patents literature should always be done at the start of any R&D effort, to avoid wasteful and costly duplication.

- *Licensing opportunities*
  Even if an invention is still protected by a patent, it may be possible to negotiate a license for its manufacture or importation.

- *Competitive intelligence*
  Monitoring the current patent literature increases awareness of who your competitors are and the technologies that they are producing. It is also increasingly useful for investment research and intellectual capital assessment.

- *Technology trends*
  Patent classifications can be used to monitor worldwide technological trends, by noting the numbers of applications filed in any particular subject.

- *Inspiration*
  Browsing through the patents on a subject of interest can encourage the development of new ideas, particularly as it is often possible to find the same concepts being used in unrelated industries.

2.4 Problems encountered in using patent documentation

However, the usefulness of this information becomes a serious problem when one considers the form in which it is presented and its sheer volume.

Table 3 Problems encountered in using patent documentation

Language	A patent of interest may be written in an unfamiliar or difficult-to-translate language.
Extent of Protection	Determining where an invention has been patented can be a difficult and time consuming task. In today's global economy, obtaining this information is very important for companies or inventors who may be trying to corner a global market.
Length	A single patent specification may contain 200 pages or more of technical information written in an unfamiliar language. Applications containing hundreds of thousands of pages are also now being submitted.
Complexity	A patent specification may contain a summary of the "prior art" (previously used or known technologies), the invention in brief, then a more detailed description including specific examples, and the claims (legal boundaries of the invention). Determining what's new or the novelty[1] of the invention, as well as how it is used, can be a time consuming process.
Volume	The sheer volume of published patent documents on a worldwide basis is staggering. Adding the complications of an unfamiliar language, the complexity and length of the document, one can see the barriers encountered if, for instance, you needed to search for the latest patents on microchips used in the semiconductor industry.
Classification	Conventional classification schemes used generally in patent offices worldwide are not easily understood by the layperson, and are not specific to industrial applications. Classification schemes are even more complex in the case of chemical structures. Today, most chemical structures are expressed in patents as Markush structures. Simply put, one Markush structure described in a patent could protect several hundred structures.

2.5 Why Use Thomson Scientific?

The Thomson Scientific portfolio of patent products and services available worldwide takes the pain out of obtaining the valuable information contained in patents. Thomson Scientific currently processes more than 35,000 patent documents from 40 of the world's most important patent issuing authorities and one literature source each week. Thomson Scientific analyzes, classifies, indexes, abstracts, and collates information from these sources, enabling you to quickly and conveniently access Thomson Scientific's **valued-added information**. As a result of the intellectual effort expended by Thomson Scientific technical staff, you can easily create your own search criteria and obtain results uniquely tailored to your requirements. Thomson Scientific provides:

- Comprehensive coverage of all technologies.
- Technical experts who analyze the main points of the invention.
- Titles of new inventions written in English, regardless of the original language of the patent, that are more informative than the original title on the specification.
- Abstracts written in English, regardless of the original language of the patent, that provide a detailed description of the invention, as well as its use and advantage.
- An easy-to-understand classification and indexing system that is industry-based for ease of use.
- Special indexing, for precise and complete retrieval, applied to patents disclosing chemical structures in the pharmaceutical, polymer and plastics, and general chemical industries.
- Grouping of related patents into a patent family record to eliminate redundant analysis of the same invention.
- Unique patentee codes assigned to patents obtained by 21,000 organizations worldwide that patent frequently.
- Complete online retrieval of Thomson Scientific value-added information, including intellectually selected patent drawings - the accuracy of which is facilitated by the Thomson Scientific classification system.

The patent information that Thomson Scientific provides will keep you and your company ahead of the competition. In order to maximise your ability to exploit the information provided by Thomson Scientific, developing a basic understanding of patents and patent documentation is useful. Thus, the purpose of this section of this guide is to provide an overview of patents and patent documentation.

2.6 What is a patent?

A patent is an **exclusive right** given by law to inventors to make use of and exploit their inventions for a limited period of time. There are rigid definitions, varying slightly from one country to another, of what may comprise a patentable invention. For example, ideas, mathematical games, and theories are excluded. The **granting** of a patent in any particular country provides the owner of the patent with the **legal authority** to exclude others from making, using, or selling the claimed invention in that country without their consent, for a fixed period of time. This authority does not extend to any other country. A patent needs to be obtained in each country where protection is sought.

In exchange for the privilege of **monopoly**, the owner of the invention agrees to disclose the complete details of the invention. To keep the patent in force, the owner needs to pay certain fees to the appropriate patenting authority. Failure to do so will cause the patent rights to lapse. Most countries also require that the patent is "worked". This means that the protected invention is put to commercial use within a specified period of time.

2.7 Patent documents

The terms patent, patent document, patent application, and patent specification are often used, apparently as synonyms. Strictly speaking, they are not. The legal documents conferring monopoly rights are known, for example in the United Kingdom, as patents. One part of such a document is the description of the invention, including a description of the monopoly claimed. This is called the **patent specification**.

As will be explained later, under the patent laws of most countries, the patent specification may publish several times, first as the applicant wrote it, then after a patent examiner has amended it, and finally after any objections from third parties have been taken into account. There are different types of patents that offer various degrees of protection. For example, the "petty" patents give more limited rights than a normal patent with full protection. Yet another practice, adopted in Eastern European countries, is to have an alternative to the patent, either an Author's Certificate (as in the former USSR) or an Economic Patent (as in the former East Germany). In the US, examples of other patents are: plant patents, design patents, and Statutory Invention Registrations (SIRs).

The patent documents that are processed within *DWPI,* and included in its related Thomson Scientific portfolio of information services, are **patent specifications.** These are the documents which give the detailed explanation of the invention, whether or not the documents are examined or unexamined applications or are published in support of a granted patent.

2.8 The duality of patents

A patent specification is both a legal document and a technical document. Broadly, the information in a patent document can be divided into three categories.

Table 4 Three categories of patent information

monopoly rights	the legal limits which define how close another invention may come to the patented one before the inventor's rights are infringed.
technical information	this may include the nature of a manufacturing process, the composition of a new drug, the design of new pieces of machinery, etc. Such information helps to stimulate further progress on new ideas. At the same time, its availability avoids wasting time and money repeating already patented work. The monopoly right is given only in return for the disclosure of the invention in sufficient detail to enable someone "skilled in the art" (i.e. experienced in that particular craft or manufacture) to carry out the invention himself.
technological intelligence	much can be learned about industrial organizations from a study of their patents.

It is this dual nature of patents, legal and informative, which makes them such a vital resource.

2.9 Function of patents

The function of patents is to develop industry. This is achieved by granting the inventor a temporary monopoly in exchange for a full description of how to perform the invention. Essentially, a patent is a contract between the inventor and the public. The principle of a patent being a contract relates to the fundamentals of simple contract law where a right is given in exchange for some consideration. In patent law, that right is to exclude others from making, using or selling an invention in exchange for educating society of new technological advances. These advances enhance the knowledge base of the public which drives whole economies and provides the public with jobs. Moreover, a patent gives to the owner the right to take legal action against others who have exploited the invention without the owner's consent.

For example, consider a patent granted in Germany. It gives the owner alone the right to manufacture, use, import or sell within Germany, the invention for which it has been granted. This right can be used to prevent competition while the owner develops a business based on the invention. Another person or company can be allowed to exploit the invention and pay royalties under a licensing agreement. The patent may also be sold outright by means of an assignment to another person or company.

The monopoly right given by a patent is not automatically enforced. It is the responsibility of the owner to look after his or her rights by finding out whether anyone else is infringing them, i.e. is making, using, selling or importing the invention without permission. The owner may then decide to take legal action. The existence of a patent may be a sufficient deterrent to potential infringers, or it may enable the owner to secure some financial compensation without recourse to legal action. However, possession of a patent should not be taken as an indication that an invention has any merit or commercial value.

2.10 What is patentable?

What may, or may not, be patentable in any particular country will be governed by the patent laws of that country. While there are variations in the definitions of patentable inventions, there are some generalizations applicable to virtually every patent system.

To be patentable an invention must, in general, fulfil the following conditions:

- The invention must be **new**.
- The invention must involve an **inventive step**.
- The inventions must be **useful** to industry.
- The invention must not be **excluded**.

The invention must be **new**. That is, the invention must never have been made public in any way, anywhere, before the date on which the application for a patent is filed. (Some countries, however, have a grace period where an invention may be exhibited up to one year before filing. Most practitioners recommend that, to be safe, inventors file their application first *before* exhibiting to ensure that their rights will be protected.)

An invention must involve an **inventive step** if, when compared with what is already known (i.e. the **prior art**), it would not be obvious to someone with a good knowledge and experience of the subject.

An invention must also have an **industrial application**. It must be capable of being made or used in some kind of industry. In other words, the invention must take the practical form of a device or apparatus, a product or an industrial process or operation.

Most patent systems define **excluded inventions.** For example, in many countries, an invention may not be patentable if it is merely a discovery; a scientific theory or mathematical method; an aesthetic creation such as a literary, dramatic or artistic work; a scheme or method for performing a mental act, playing a game or doing business; or the presentation of information. Further, articles or processes alleged to operate in a manner clearly contrary to well established laws, e.g. perpetual motion machines, or which are at variance with the laws of the country, e.g. if exploitation of the invention would generally be expected to encourage offensive, immoral or anti-social behavior, are usually excluded.

2.11 Patent types

There are several different types of patents - many of them issued by only one particular country. They include:

- Patents of Invention (known in the US as Utility Patents).
- Author's (Inventor's) certificates.
- Defensive publications.
- Medicament patents.
- Certificates of addition.
- Design patents.
- Plant patents.
- Utility models (Gebrauchsmustern).
- Petty patents, innovation patents.

In addition, there are different types of patent documents which issue through amendment and related practices, for example Re-issue patents from the US.

The majority of documents processed in *DWPI* and any related products and services are **patents of invention** (**utility patents**). These are patent specifications covering inventions which will function in a unique manner to provide a utilitarian product or operational process.

As applicable for the different countries covered in *DWPI*, other types of patents are included in the services, with the exception of design patents, and plant patents.

This user manual serves as an introduction to the Thomson Scientific services and its patent information sources. Therefore, the remainder of this part focuses on patents of invention (utility patents).

Descriptions of design patents, utility models, and other types of patents, are to be found in other sources.

2.12 International Treaties: The Paris Convention

The laws of a country relating to industrial property are generally concerned only with acts accomplished or committed in the country itself. Consequently, a patent is valid only in the country where the grant or registration was effected. It is not effective in other countries. Therefore, *if the owner of a patent desires protection in several countries, such protection must be obtained in each of them separately*.[2]

In order to assist inventors in obtaining patent protection in foreign countries, the Paris Convention for the Protection of Industrial Property was established in 1883. Eleven countries participated in the agreement by signing the Paris Convention for the Protection of Industrial Property.

Since 1883, the number of Contracting States has been constantly growing and now stands at 169 (as of March 2006). The Paris Convention has been revised several times since it was established.[3] Gradually, through this revision process, provisions have been written into the Convention to ensure better protection. The Convention is open to all countries; instruments of ratification are deposited with the Director General of WIPO.[4]

The provisions of the Paris Convention fall into three main categories: national treatment, right of priority, and common rules.

National Treatment

Under the provisions on **national treatment**, the Convention provides that each Contracting State must grant the same protection to citizens of the other Contracting States that it grants to its own citizens. Citizens of non-Contracting States are also protected by the Convention if they live or have a business establishment in the Contracting State. These provisions guarantee not only that foreigners will be protected, but also that they will not be discriminated against in any way.

Right of Priority

The Convention provides for the **right of priority**. This right means that, on the basis of a first application in one of the Contracting States, the applicant may, within 12 months, apply for protection in all the other Contracting States; the later applications will then be regarded as if they had been filed on the same day as the first application (termed the **priority date**). In other words, the later applications will have priority over applications which may have been filed during the prior 12 months by other persons for the same invention. Later applications, which are based on the first application, will not be invalidated by any acts accomplished in the interval. Such acts may include, for example, publication or exploitation of the invention. These acts cannot give rise to any rights for the benefit of third parties.

One of the great practical advantages of this provision is that when an applicant desires patent protection in several countries, they are not required to present all their applications at the same time. They have 12 months to decide in which further countries to seek protection.

The later applications are known as **priority applications**, because they quote the date of the first one as **priority.** They are also known as **convention applications**, because of the International Convention under which multiple applications have been made. The resulting set of **equivalent applications** (sometimes referred to as counterparts) is known as a **patent family**, indexes of such families are known as **concordances**. It should be remembered, however, that national law requirements may make minor variants necessary or desirable and that the descriptions of the invention in each family member document may not be identical. For example, it may be possible to make a more extensive claim in one country than in another. Furthermore, because of the twelve-month period in which convention applications may be made, a later application may describe a more advanced stage than, or improvement of, the original or priority invention.[5]

Common Rules

The Convention lays down a few **common rules** which all Contracting States must follow. Some of the more important of these rules are as follows:

Patents granted in different States of the Union for the same invention are independent of each other; the granting of a patent in one State does not oblige the other States to grant a patent. A patent cannot be refused, annulled or terminated in any State on the grounds that it had been so dealt with in another State.

The grant of a patent in one State of the Union may not be refused and a patent may not be invalidated, on the grounds that the sale of the patented product, or of a product obtained by means of the patented process, is subject to restrictions or limitations resulting from domestic laws in another Contracting State.

Each State of the Union must maintain a special industrial property service and a central office for the communication to the public. An official periodical journal must be published by the office; the journal must contain the names of the owners of the patents granted, with a brief description of the patented inventions.

It is to be noted that, except for the provisions with which each Contracting State must comply, the Convention leaves each one free to legislate as it wishes in industrial property matters. In particular, each State is free to exclude certain kinds of products or processes from patentability; to decide whether patents should be granted with or without an examination as to their novelty and patentability; to determine the duration of patents; and to determine all the details of procedure and administration.

2.13 Obtaining a patent – filing an application

The patenting process and patent documents have concepts and utilise terminology specific to the realm of intellectual property. Patent documents contain language unfamiliar to most people. To help explain the most important concepts consider the following scenario.

The R&D unit of your company, XYZ Limited, has successfully developed a new process. During the initial stages of the R&D effort, online searches were made using both patent and non-patent information sources on the subject of the invention. This is known as a **prior art search.** Its purpose is to find out everything that was previously known and invented which pertains to the technology or "art". This information is needed for two reasons: (a) to determine the **novelty** (originality) of the invention, and (b) to be certain that the invention does not **infringe** (trespass) upon the patent rights of another inventor. Often, prior art searches are referred to as **patentability** searches.

During the same period, your R&D team will work with a patent agent or attorney to be sure that, in their expert opinion, your invention meets the criteria for patentability. It is also critical that the agent fully understands the invention and its purpose so that an accurate application can be **drafted** (written). From a legal standpoint, the most important section of the application is the **claims**, which outlines the boundaries of the property to be protected. Their purpose is to define the subject matter that the invention regards as proprietary, but not to explain the invention in great detail. However, if the claim(s) are too broad, they may be **disallowed** [not granted] or **opposed** [challenged] leading to **revocation** [annulment] of the application.

The precise format of the patent application is prescribed by the patent law of the country in which the application is made. As a rule, the applications require a brief explanation of the **prior art**. This is usually followed by a **description**, which explains the inventive step and how it works, with reference to **examples** [for example, in the case of a new chemical, the experimental procedures to synthesise the chemical] and, if appropriate, particularly for mechanical inventions, **drawings** [illustrations]. The information supplied in the application is available for **disclosure** and is said to have been **disclosed**, or "made known".

Chemical applications may have a special type of generic claim, the **Markush claim**, which needs some special mention and which has been designed to cover a more or less "artificial" group of chemical compounds, radicals or elements.

The term **Markush** is derived from a patent application made in 1923 by Dr. Eugene A. Markush. The application, which eventually published as US patent 1,506,316 in 1925, was concerned with a method of preparing pyrazolone dyes which could be used for wool and silk. Dr. Markush's application stated in Claim 1:

"The process for the manufacture of dyes which comprises coupling with a halogen-substituted pyrazolone, a diazotised unsulphonated material selected from the group consisting of aniline, homologues of aniline, and halogen substitution products of aniline"

This was challenged as being too unspecific, but a decision by the US Commissioner of Patents ruled on the propriety of such claims although this form of claim had not previously been allowed in patents.

The term "Markush" as applied to claims, denotes a claim wherein a substance, substituent, agent, reactant or other material is represented as being from a group consisting of certain or specified materials. For example, the materials selected can be the group consisting of A, B, C, or D, where A, B, C or D are different chemical molecules; however, each can serve the same chemical function.

In other words, A, B, C or D can each be a compound, an element, a solvent, or a possible substituent or functional group on a chemical structure; and with this system, many chemical compounds (with the same activity) can be described by a single Markush claim.

Markush structures are allowed in patents to protect the invention for sets of related compounds, without having to require the inventor to prepare and test each and every possible compound.[6]

Acting on behalf of the **applicant** [the inventor or his employer], the patent agent/attorney will file the **application**, together with whatever forms and fees may be required, at the appropriate **patent office**. It is usual that most corporate employees, as a part of their employment terms, **assign** any rights to any invention made during the course of their employment to their employer; the employing organization, XYZ Limited, becomes the **assignee**. Even independent inventors may assign their rights, quite often because they do not have the resources to effect commercial exploitation of the invention.

Deciding on exactly where to make the application for protection, involves some commercial considerations, as the range of options is quite complex. There is, however, some urgency in filing the application because it is possible that more than one person may arrive at the same invention at, more or less, the same time. The legislation of most countries will result in the granting of a patent for any particular invention to the applicant who is **first to file** an application. A notable exception to this is in the US, where the patent will be granted to the **first to invent**.[7]

2.14 Obtaining a patent – International Routes

An inventor has a choice of routes to take for patent protection. The choice will largely be dependent on commercial considerations. Priority is usually given to obtaining protection in those countries where the invention will be carried out or where the resultant products will be marketed.

If there is no intention of exploiting an invention abroad and there is no concern that it might be copied there by foreign competitors, a domestic country or national patent may be all that is needed. However, if there is a possibility of expanding into foreign markets, the desirability of protecting an invention in these markets may be considered. Even if there is no intention of expanding, but there may be licensing opportunities, such protection could be of value in discouraging unlicensed copying or use of the invention.

To obtain protection abroad, it is normally necessary to make a separate national application in each relevant foreign country. Thirty-one European countries are parties to the **European Patent Convention** (EPC) [see also page 19]. A patent application filed under this convention will, when granted, be effective in each of the countries designated by the applicant. A **designated** country is one that the applicant listed for which patent protection was desired. Thus, a second way to obtain a patent that is valid in, say, the UK is to file an EPC application designating the UK. Such a patent can also be valid in the other contracting states of the European Patents Organisation established by the Convention, provided they have all been designated and the appropriate fees paid.

To simplify filing on a worldwide scale there is the **Patent Cooperation Treaty** (PCT), to which 134 countries are party (as of December 2006). Hence, a third way to apply for a patent valid in the UK is to file an international application under this treaty.

While PCT applications are often referred to as such, it must be emphasized that there is no such thing as a *World Patent*. To obtain patent rights in other countries, it is necessary to make and follow through a patent application under the national patent laws of each country, unless the options offered by the EPC or the PCT are used. Furthermore, it must be emphasised that the process of patenting an invention in several countries can be very expensive. There are other regional patent organizations e.g. ARIPO (African Regional Industrial Property Organisation), OAPI (African Intellectual Property Organisation), and Eurasian, that offer patent protection to their members.

Even if the EPC and/or PCT methods of patent protection are used, it will still be necessary to make separate national applications if protection is needed in countries that are not parties to these treaties.

Thus, there are three possibilities:

- Pursue applications in one or more national patent offices.
- Make application through one of the multi-national processes, e.g. PCT or EPC.
- Use some combination of these routes.

Each of the countries shown in Figure 1 has its individual national patent system through which an application may be pursued. More details for those countries covered in *DWPI* can be found in **Part 3** of this User Manual.

Some of these countries are also signatories to the Patent Cooperation Treaty, e.g. USA, Canada, Japan, UK, Italy, Germany, France, etc. Others are also signatories to the European Patent Convention, e.g. UK, Italy, Germany, and France. Many countries have only their national systems.

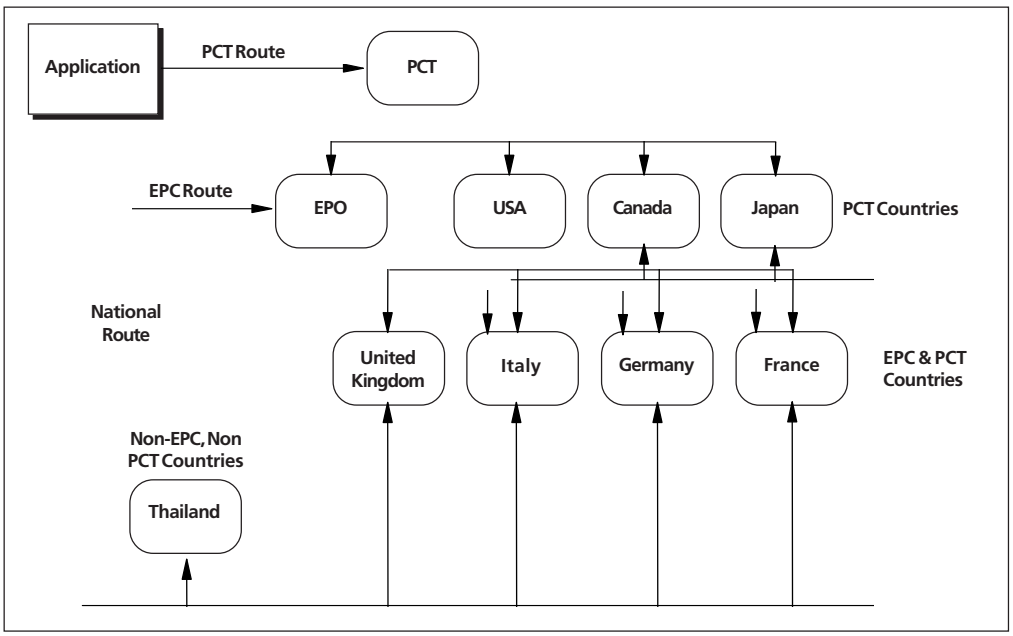
To file an application in the USA or Canada, an applicant has only two choices: the national routes of both countries or via the PCT, designating, perhaps among other countries, USA and Canada, for protection. Neither of the North American countries can, of course, be signatories to the EPC.

An application for a patent in UK can, however, come from three routes: the national system, the EPC system, and via PCT. Similarly, applications for patents in Italy and France can come from the national system and PCT (via EPC system). Germany can follow the same routes as the UK.

A complication arises at the PCT level since it is possible not only to designate contracting states, but also to designate the EPC when filing an application. Thus, for UK, for example, there are really four routes:

- National route.
- PCT direct.
- EPC direct.
- EPC via PCT.

Figure 1 Possible routes to the patent



It is not at all unusual for an applicant to file the same application via more than one of these routes. However, at some stage, one or more of the applications will have to be abandoned. For example, if an applicant files in both the UK and EP patent offices, and designates UK in the EP filing, after examination at the EPO, the application will be passed back to the UK patent office. In effect, two applications will then exist for the same invention at the UK patent office – one will have to be dropped.

In general, where applications are made at the multi-national level, each application, PCT or EPC, will eventually be passed to the national patent offices of the countries designated by the applicant. On receipt at those offices, the application will not necessarily become a patent; the application will need to pass through each of the patenting systems of the countries involved – because of differences in national laws, what may be permissible in one country may not be allowed in another.

The European Route (EPC)

The main advantage and purpose of the EPC is that it allows patent rights to be obtained in any one or more of the European countries that are listed as **EPC Contracting States,** in **Section 3** of this User Manual, by making a single European patent application. This may be cheaper than making separate national patent applications in each country. The applicant has to **designate** the countries in which he wants the patent to take effect and pay a fee for each, although initially it is assumed that all states are designated.

Residents in an EPC contracting state may file a European patent application at their National Patent Office or they may instead file it with the European Patent Office (EPO).

When granted, a European patent has the effect of a bundle of separate national patents, one for each country that has been designated in the application. So, if the UK has been designated as one of these countries, patent rights in the UK will be obtained which will then become subject to UK law in the same way as a patent obtained by a national application.

The International Route (PCT)

A national of, or resident in, one of the **PCT Contracting States,** listed in **Section 3** of this User Manual, may take advantage of this Treaty to simplify filing of an application to obtain patents in several of the countries party to the Treaty. A single international application, in one language and in accordance with the set of rules on formal requirements and content, is filed in one of the Receiving offices of the World Intellectual Property Organisation. For example, for UK residents this will generally be The Patent Office in Newport. In the international application the applicant designates those countries in which a patent is desired. The single application is sent to an International Searching Authority, where a search on it is carried out. The application and the Search Report are published, as soon as possible, after 18 months from the international filing date (or the priority date, if priority is claimed), by the International

Bureau of the World Intellectual Property Organisation in Geneva. The Bureau will send copies to the applicant and to each of the Patent Offices of the countries that have been designated and that require it.

Each designated country will then process the application as a national one, if the national fees and a translation of the application (if required) are supplied within specified time limits. These limits have been recently extended from 20 months to 30 months after the priority date. Countries have extended or are in the process of extending the entry into the National phase to thirty months from the priority date. The application can also be treated as an application for a European patent if the appropriate designation has been made and it will be then processed in accordance with the EPC.

Comparing the Choices

If a patent which has effect only in a particular country is needed, then it is much simpler and cheaper to make a national patent application. But, if patents in several countries are required, it may be cheaper to use the EPC or the PCT than to make a national patent application in each.

Each separate national application would incur the official fees of that country, and usually also the fees of a professional representative [patent agent or patent attorney] in that country and the costs of translating the application. Using the EPC an applicant will have to pay the official fees, the fees of a single patent agent, but no translation fees at the initial stages, provided that the language in which the application is filed is English, French or German.

However, this initial saving is eventually reduced because claims in English, German, and French have to be provided before a European patent is granted. In addition, most of the European countries require a translation of the whole specification into their own languages before the patent can be enforced in their country. A similar calculation will need to be done to decide whether to use the PCT, taking into account that the costs during the national phase of the application include, for each designated country, national fees — for example the examination fee — according to that country's scale, and probably professional representative's fees and translation costs. One advantage of using the PCT route is that the decision of which countries to seek patent protection in can be delayed by 30 months from filing.

Other Considerations

Whichever route is adopted, it is worth remembering that a national application can be used as a basis for claiming **priority** for an application filed in most other countries, or for an application filed under the EPC or the PCT, provided that the fresh application is filed within 12 months of the date of filing the earliest national application for the same invention.

If an application is filed abroad without first filing a national application, permission will be needed and the foreign application must be filed before publication or other disclosure of the invention occurs in the country of domesticity, if the foreign application is not to be automatically invalid.

Another benefit of filing a national application first is that the national Search Report can be used to make a first assessment of the invention before embarking on the costly process of obtaining protection abroad.

2.15 Patent Families

Having chosen the route to be taken, the application is then filed with the appropriate authorities. At this stage the application remains confidential between the applicant and the intellectual property office.

When the application is delivered to the patent office, for identification purposes, it will be given a **local filing number** or **application number**. Usually these numbers are assigned in chronological sequence: the next application to be delivered will receive the next unassigned number. The date upon which the application is filed is the **application date**.

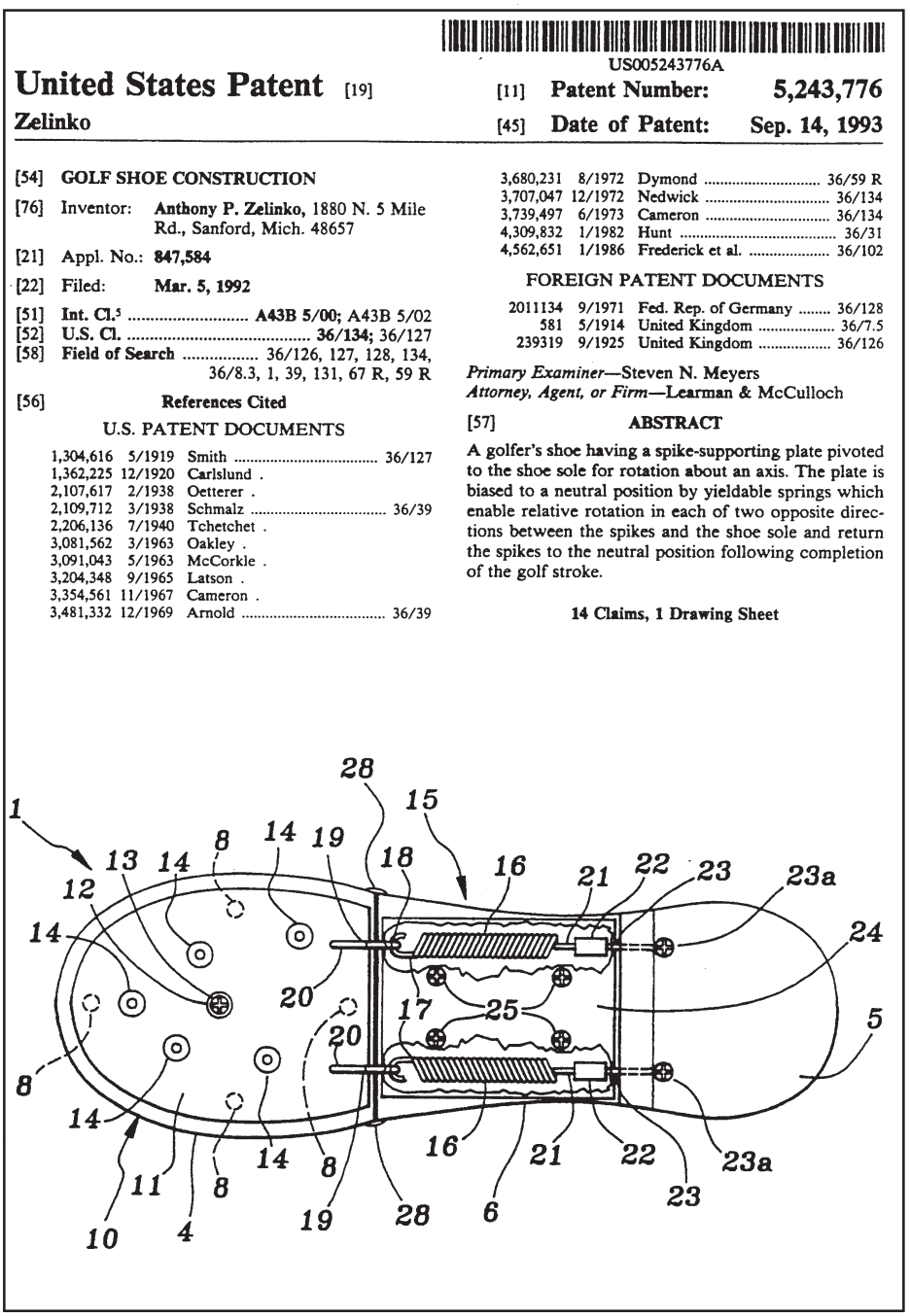
As indicated earlier, there is every probability that an applicant will want to seek protection in more than one country and will file applications abroad. Most often this will be done under the **right of priority** provisions of the Paris Convention [see page 13]. Under these provisions, the applicant has a further 12 months from the [local] application date in which to file the application in one or more other countries, while still retaining the original, local filing date as the "effective" date of the later filings in the other countries. During this one year period, the applicant has the advantage of making improvements or other modifications to the invention and/or the application *per se*. Of course, the additional countries must be signatories to the Convention.

Under such procedures, the local filing or application number also becomes the **priority number**, the local application date becomes the **priority date** and the country in which the application is first made becomes the **priority country**. For each additional country in which application is made, the application will receive a national application number and application date unique to that country; however, the priority information will remain constant. Such additional applications are said to have been **filed under convention**.

Both the national filing data and the priority data are reported on the front page of the documents when they are published, or **laid open to public inspection** (OPI). The first member of the patent family to enter the Thomson Scientific database is referred to as **basic**. This may not be the first specification published. Subsequently input family members are referred to as **equivalents**. It is through INID codes (see Section 2.18) associated with key bibliographic data that equivalents are identified and the **patent family** created. Reference to an example should help clarify this. Figures 2, 3, and 4 show, respectively, parts of the front pages of US, Canadian, and GB documents which comprise part of a patent family. More on basics and equivalents can be found in **Part 4**.

The US document (Figure 2) was the first of these applications filed. The local filing number assigned, INID 21, was 847,584; the local filing date, INID 22, was March 5, 1992. Priority application data is given for INID codes in the 30 series; in this case neither the fields nor the INID codes are given because there was no priority information associated with this patent application at the time of filing

Figure 2 The front page of a US patent



US005243776A

United States Patent [19]

Zelinko

[11] **Patent Number: 5,243,776**

[45] **Date of Patent: Sep. 14, 1993**

[54] **GOLF SHOE CONSTRUCTION**

[76] Inventor: **Anthony P. Zelinko**, 1880 N. 5 Mile Rd., Sanford, Mich. 48657

[21] Appl. No.: **847,584**

[22] Filed: **Mar. 5, 1992**

[51] **Int. Cl.**[5] **A43B 5/00**; A43B 5/02

[52] **U.S. Cl.** **36/134**; 36/127

[58] **Field of Search** ..... 36/126, 127, 128, 134, 36/8.3, 1, 39, 131, 67 R, 59 R

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Primary Examiner—Steven N. Meyers
Attorney, Agent, or Firm—Learman & McCulloch

[57] **ABSTRACT**

A golfer's shoe having a spike-supporting plate pivoted to the shoe sole for rotation about an axis. The plate is biased to a neutral position by yieldable springs which enable relative rotation in each of two opposite directions between the spikes and the shoe sole and return the spikes to the neutral position following completion of the golf stroke.

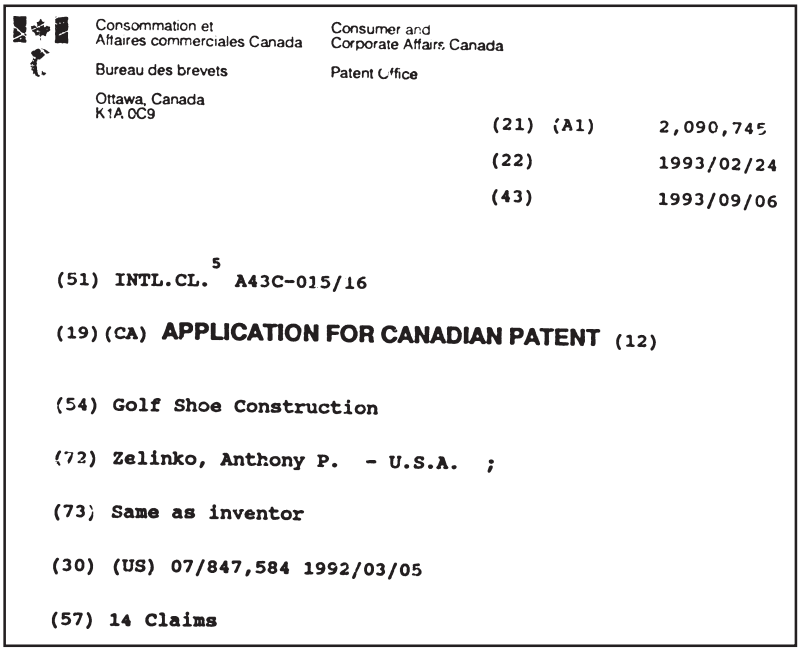
14 Claims, 1 Drawing Sheet

The Canadian document (Figure 3) shows that the local filing number and date, i.e., with reference to when the application was filed at the Canadian Patent Office, INID codes 21 and 22, are 2,090,745 and 24.02.1993 respectively. Thus filing in Canada was just under one year [from 5 March to 24 February the following year]. The application was filed *under convention* (see 2.12) and shows the priority information in INID code 30. This is the information concerning the US application number (847,584) and the application date (05.03.1992).

Similarly, the GB document (Figure 4) indicates that the local (GB) filing date, INID code 22, was 24 February, 1993 [same day as the Canadian application, just under one year from the original US application] and the local application number, INID code 21, was 93036960 Here, again, the priority information is given against INID code 30 with the same date, country, and application number as the US and Canadian documents.

It is by comparing this original filing and priority information that members of patent families are identified. However, an applicant may choose not to file *under convention*, either within or beyond the 12 month period. It is not uncommon for an applicant to wait until just before the appearance of the first published document before applying in additional countries. Such **non-convention** applications will not bear the priority information (INID 30) as other related filings; only the local filing data will be seen. It is nevertheless possible in many instances, through such other parameters as the subject matter, applicant's name, etc., to identify non-convention equivalents; considerable effort is expended by Thomson Scientific staff in determining such relationships. The addition of the non-Convention equivalents to the *DWPI* patent family is an important and unique element of value-added information.

Figure 3 Part of the front page of a Canadian patent



Consommation et Affaires commerciales Canada
Bureau des brevets
Ottawa, Canada
K1A 0C9

Consumer and Corporate Affairs Canada
Patent Office

(21) (A1) 2,090,745
(22) 1993/02/24
(43) 1993/09/06

(51) INTL.CL.[5] A43C-015/16

(19)(CA) **APPLICATION FOR CANADIAN PATENT** (12)

(54) Golf Shoe Construction

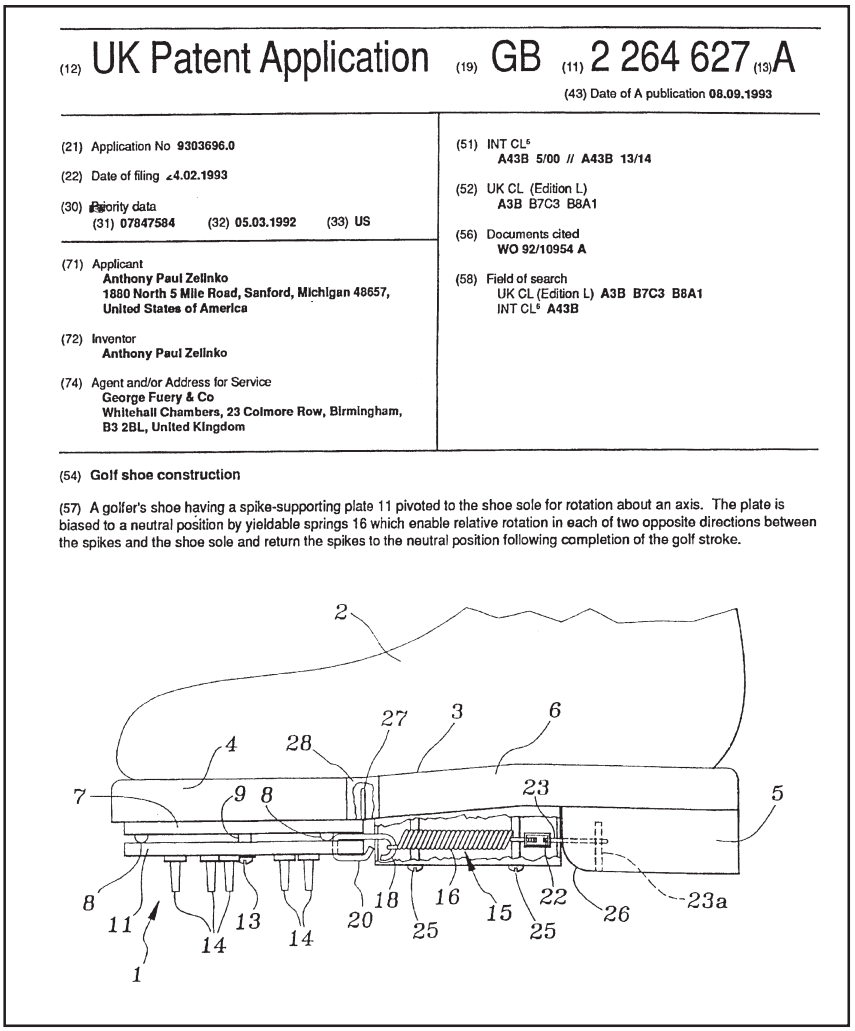
(72) Zelinko, Anthony P. - U.S.A. ;

(73) Same as inventor

(30) (US) 07/847,584 1992/03/05

(57) 14 Claims

Figure 4 The front page of a British patent



(12) UK Patent Application (19) GB (11) 2 264 627 (13) A

(43) Date of A publication **08.09.1993**

(21) Application No **9303696.0**

(22) Date of filing **24.02.1993**

(30) Priority data
(31) **07847584** (32) **05.03.1992** (33) **US**

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(51) INT CL[6]
A43B 5/00 // A43B 13/14

(52) UK CL (Edition L)
A3B B7C3 B8A1

(56) Documents cited
WO 92/10954 A

(58) Field of search
UK CL (Edition L) **A3B B7C3 B8A1**
INT CL[6] **A43B**

(54) **Golf shoe construction**

(57) A golfer's shoe having a spike-supporting plate 11 pivoted to the shoe sole for rotation about an axis. The plate is biased to a neutral position by yieldable springs 16 which enable relative rotation in each of two opposite directions between the spikes and the shoe sole and return the spikes to the neutral position following completion of the golf stroke.

2.16 Cognating, dividing, and multiple priorities

It is possible that an inventor may make more than one application for inventions which are quite similar, most usually, but not necessarily, at the same time. The patent examiner may direct that the inventions are so similar that granting of more than one patent is not justified. Instead, the examiner may request that these separate applications are joined together, or **cognated**, into a single application.

The converse situation arises when a single application is considered too broad and really represents more than one invention. The examiner may then direct that the application is **divided out** to generate more than one application.

Cognating and dividing applications may also arise as a result of applications being made under priority, but where the intellectual property laws differ for the individual countries in which protection is sought. A priority application in country A may be for a new compound and the process for making that compound. The applicant may also seek protection in country B where, however, the regulations permit only an application for the compound and require a second application for the process. Two applications will result; when they are published they will have the same priority data.

The opposite of this is where two applications, one each for the compound and process, are made in country B. In this case two separate "sets" of priority data will be assigned. When a single application is made in country A, for both compound and process, both priorities' data will be applicable. The resultant application will show **multiple priorities**.

Multiple priorities may also result from new work being carried out on the invention during the 12 month period between original application filing and priority filing abroad. Suppose XYZ Limited files an application in the UK on 17 January, 1993. XYZ has a big market in USA and will also want protection in that country; it has until 16 January 1994 to file in the USA under convention.

The R&D staff at XYZ on 17 October, 1993 file in the UK another application representing an improvement to the one filed on 17 January, 1993. When application is made in the US, on or before 16 January, 1994, XYZ wants to take advantage of both the applications it has made in the UK and files an application claiming both [**multiple**] priorities.

There are other, more complex, situations which give rise to multiple priorities which are beyond the scope of this publication. Only around 2% of all patent applications with which Thomson Scientific deals claim multiple priorities.

2.17 The structure of the patent specification

Patent applications and patent specifications are very similar in their format. However, the unexamined and examined documents relating to any particular invention may differ. This is usually a result of the activities of the patent examiner who may require certain modifications to the application, such as narrowing the claims [the most usual change]. It is for this reason that *DWPI* includes both the unexamined and examined documents from some countries in its system.

Patent applications and specifications[8] are very stylized documents. An understanding of how patents are structured and the reasons for the way they are written can make it much easier to use this important information resource effectively.

The different parts of a patent are usually as follows:

- Heading/Bibliographic Data.
- Prior Art.
- Objects of the Invention.
- Summary or "Definition" of the Invention.
- Elaboration.
- Utility.
- Working Examples.
- Claims.
- Illustrations.
- Search Report.

Table 5 Different parts of a patent

Heading/Bibliographic data	In the same way that a book will have a title page,patents have a front page which gives useful and important data. An abstract and, if appropriate, an illustration (a drawing of a mechanical or electrical device, or a chemical formula) is usually given as well. Although this layout is becoming increasingly standardized, the information given can vary from country to country. For example, GB documents do not give the address of the inventor, only that of the applicant [who might be the same person].
A statement of the field	This is an overview of the subject matter from **of technology** which the invention has evolved.
The prior art	A discussion of the background to the invention and a statement of the problem to be solved.
Objects of the invention	The benefits provided by the inventor's discovery are discussed.
A summary or "definition"	The solution to the problem that the invention **of the invention** provides is stated in technical terms. This description explains the inventive step and how it works, often with reference to illustrations which are referred to as drawings.
Elaboration	Detailed elaboration is given of all aspects of the invention as described in the definition.
Utility	A description of the usefulness of the invention.
Working examples	Examples of using the invention, for example, methods of synthesizing new chemical compounds, or manufacturing new machinery.

Table 5 Different parts of a patent *(continued)*

The Claims	These cover the legal aspects of the monopoly. Applicants like the claims to cover as much territory as possible. But, the examiner may force a modification of a claim if the area of monopoly seems unjustifiably large. The first, comprehensive claim describes the inventive step of the patent. It is followed by as many claims as are necessary to describe the different aspects of the inventive step.
Illustrations (or drawings)	These are more commonly found with inventions for mechanical or electrical devices. As a rule, chemical patents will include chemical formulae in the description of the invention and/or in the examples.
Search Report	This can vary in detail but will at a minimum consist of a list of patent or other documents suggesting that the invention is similar to other patent information. This list is a product of the patent examiner's research. The importance of these citations are discussed in later sections. More detailed search reports indicate which claims in the application were affected by the examiner's search, the kind of relevance (mainly novelty or obviousness), and the exact page and line numbers thought to be relevant in the cited document.

One of the most useful components of the patent document is the bibliographic data. A more detailed explanation of the elements which typically appear on the "front page" information is given by reference to Figure 5 which is the relevant part of US 5,214,257. The documents from different countries will vary slightly. Older documents published before standardization was adopted will also differ from this convention, but the general principles will apply.

2.18 Patent specification descriptors – the INID codes

The first, and most important thing that the reader will note on the ***front page*** of the patent are the numbers appearing in square brackets associated with each of the elements of bibliographic data, e.g. [19] after "United States Patent". These are known as INID codes. They are present on the document under the provisions of international agreements (although they are not always presented in square brackets, often they are in small circles). INID is an acronym for INTERNATIONALLY agreed NUMBERS for the IDENTIFICATION of DATA. These codes are given to identify the various bibliographic elements so that each can be identified irrespective of the language used.[9]

An understanding of the INID codes is helpful when dealing with a patent that is written in an unfamiliar language. It is through data given in the INID codes that Thomson Scientific identifies **equivalent patents**, which are patents from different countries or at different stages of publication, that relate to the same invention.[10] For this, the INID codes in the "20" and "30" series (domestic filing and priority data respectively) are most important in locating an invention's equivalents.

Most of the data elements and the associated INID codes are self-explanatory. A comprehensive list of various INID codes with their definitions can be found in WIPO ST9. Therefore, full explanations of the detail will not be given for every descriptor. Information on the most important codes is given in the following sections.

2.19 Patent specification descriptors – the WIPO country codes

At the top left corner of Figure 5 is "United States Patent" followed by [19]. The definition of [19] refers to WIPO country codes, or other identification of the country. In the US, the name is given in full. However, for many countries merely a two-letter code is used (or given), such as GB. These two-letter WIPO codes are commonly used in patents documentation. A full list in country name order is given as **Appendix 1**(A), and in code order in **Appendix 1**(B).

There are many countries in the list for which the documents are not covered by Thomson Scientific. However, they may be referred to in *DWPI*, especially in the priority details or designated states from applications filed under the Patent Cooperation Treaty.

2.20 Patent specification descriptors – inventors and assignees

Note that on US patents, such as the one in Figure 5, the name of the inventor (Riskey) is given under the country name – but without the INID code. If there were several inventors, then they would appear as "Riskey *et al*.". The inventor's name appears again several lines lower, in full and with the INID code [75]. This is immediately above the assignee.

2.21 Patent specification descriptors – local filing details

INID codes [21] and [22] in Figure 5 are respectively the local number given to the application by the USPTO and the date upon which application was made. The USPTO resets the sequence back to one around every five or six years. It can be possible to have more than one document with, for example, the serial (application) number 553,841; thus, it is important always to associate the date with the number. It should be noted that this coding method is unique to the US.

Almost all other countries incorporate the year into the application number. Prior to January 2000, this was usually the last two-digits of the year incorporated as the first two digits of the application number. From 2000, many countries expanded their application number format to include a four-digit year. Most of these application numbers start at 1 each year. Thus, for example in Australian application 91/83549, the "91" stands for 1991; this will often be given without the slash (oblique stroke): 9183549. In the *DWPI* online files, the standard *DWPI* format requires up to twelve digits for patent numbers and nine or twelve digits for application numbers. This is especially important to remember during online searches. In cases where the application or patent number has fewer digits, preceding zeroes or hyphens may need to be added.

The number formats shown in Section 3 are those that appear in *DWPI* printed products. Online formats may differ depending on the host used.

For many countries, the application number becomes the document number, especially for the unexamined document. This may continue to the next stage which is the published examined document, but not usually to the sealed document.

Figure 5 Front page of a US patent

US005214257A

United States Patent [19]

Riskey

[11] **Patent Number: 5,214,257**

[45] **Date of Patent: May 25, 1993**

[54] **TUB-SHAPED PACKAGING CONTAINER FOR MICROWAVE POPCORN**

[75] Inventor: **Dwight R. Riskey**, Plano, Tex.

[73] Assignee: **Recot, Inc.**, Plano, Tex.

[21] Appl. No.: **553,841**

[22] Filed: **Jul. 18, 1990**

[51] **Int. Cl.**[5] **H05B 6/80**

[52] **U.S. Cl.** ..... **219/10.55 E**; 219/10.55 F; 426/107; 426/113; 426/234; 426/243; 99/DIG. 14

[58] **Field of Search** ..... 219/10.55 G, 10.55 F; 426/107, 109, 110, 111, 113, 115, 234, 243; 99/DIG. 14

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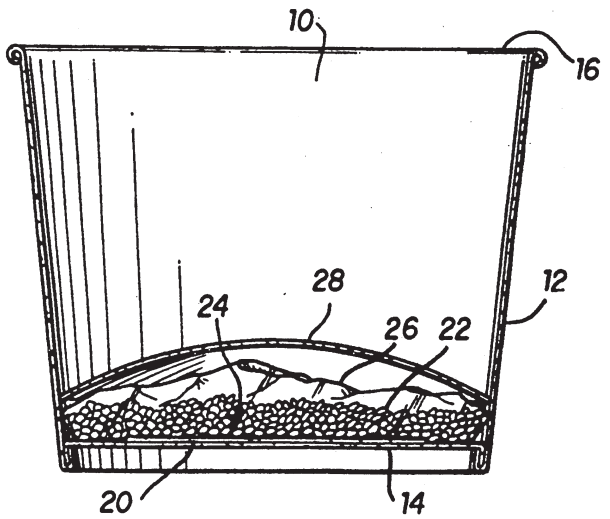
Primary Examiner—Philip H. Leung
Attorney, Agent, or Firm—Rothwell, Figg, Ernst & Kurz

[57] **ABSTRACT**

A tub-shaped popcorn container has frusto-conical side walls to enable stacking and multiple packages, the walls of the tub provide a carrier for graphics. A pop bag containing liquid oil, seasoning and pop corn is carried in the bottom of the tub above a built-in heat susceptor, and a package lid may be provided which rises as the popcorn pops.

8 Claims, 2 Drawing Sheets



2.22 Patent specification descriptors – "type" or "kind" codes

As has been previously described, for most patent issuing authorities, more than one document is issued for any particular patent. As these sequential documents often keep the same number, a method was devised to distinguish between them by adding a letter immediately after the number. This system originated in West Germany when, in 1968, new legislation introduced the quick issuing patent system. In West Germany, there were at that time three types of documents: the unexamined document (*Offenlegungsschrift* or OLS) (first publication), the examined document (*Auslegeschrift* or DAS) (second publication) and the granted document (*Patentschift* or PS) (third publication). The level of publication was defined by the letters A, B, and C, respectively, with a numerical suffix indicating the number of times the specification had been published. Thus, the normal sequence was *Offenlegungsschrift* A1, *Auslegeschrift* B2 and *Patentschrift* C3.

Since that time, further revision of the German patent system has eliminated the *Auslegeschrift* stage or B2 stage. Today, the *Offenlegungsschrift* is still A1, but the succeeding *Patentschrift* is now B4. Many applications are now reaching the acceptance stage within 18 months of filing and the first publication is then Patentschrift B1. Originally, ***DWPI*** files catered for a single alphabetic character as suffix for the patent numbers: A, B, C, etc. This was not entirely definitive and users needed to know not only the stage, but also the publication sequence. For that reason, *DWPI* expanded the "kind" data element – but did not amend the earlier data. Some caution is necessary in understanding "kinds", for example, the C documents may not be the third issued; they may be the third stage, but could be the first issued.

Note that it is a combination of the status (unexamined, examined, etc.), and the sequence (first publication, second publication, etc.) that determines the suffixes.

On occasions, Thomson Scientific has deliberately created status letters unique to its services. For example, in the case of Germany, the reader will appreciate that the nation is a signatory to both the EPC and PCT. As such, an applicant pursuing either the EPC or PCT route for protection of an invention may designate Germany as one of the countries in which protection is sought. After examination by the EPO or by a PCT-examining office, for EPC or PCT applications respectively, the applications will pass to the German Patent Office for issue in the normal way as a domestic patent and, subsequently a specification will issue in Germany. Those that have entered the German national system from the EPO will, upon entering the Thomson Scientific system, receive the suffix G (a Granted European patent in German which will be assigned a German number), those that originate from PCT will, upon entering the Thomson Scientific system, receive the suffix T (for Transfer).[11]

It is possible that the documents which transfer from the EPO to the national phase in Germany may be in another of the languages (English or French) in which the EPO operates. Such documents receive the suffix E upon entering the Thomson Scientific system.[12]

It was hoped that the suffix system would be universally adopted so that A in one country would mean the same as A in another; however, this is not so. For example, in Japan, (a signatory to the PCT) documents which transfer to Japan through PCT and which do not originate in Japan, i.e. the priority application is from another country[13] receive a suffix W, while those that transfer, but originate in Japan, receive a suffix X. Further, PCT applications which do not originate in Japan - and are converted to Utility Models when filed in Japan - receive a suffix Y; while those that originate in Japan - and are converted to Utility Models when filed in Japan - receive the suffix Z.

While in general the suffix letters follow similar meanings in different countries, they are not identical. It is best to check. For those most commonly encountered, the codes and their meanings are given in Appendix 3 . A comprehensive list of the recommended standard codes for the identification of different kinds of patent documents appears in WIPO ST16.

2.23 Patent specification descriptors – classification codes

INIDS [51] and [52] are, respectively, the International Patent Classification (IPC) and the USPTO Classification. Some national patent offices maintain their own patent classification system. The EPO has developed its own classification systems–ECLA. These systems were primarily devised to assist the patent examiners in their novelty searches. Their use as retrieval systems for the general public was secondary. Therefore, conducting a patent search using only the IPC or USPTO classification codes can be difficult and time consuming. It is the burdensome nature of the existing system which led Thomson Scientific to create its own classification which is industry orientated.

Patent classification systems are usually hierarchical in nature and are represented by either a numeric notation (US) or an alphanumeric notation (GB). An understanding of these classifications is not needed for the purposes of the online files, but can be useful. A brief overview of the US classification can be found on page 35.

In Figure 5, the examiner has applied seven US classes (INID [52]): 219/10.55 E; 219/10.55 F; 426/107; 426/113; 426/324; 426/243; and 99 DIG. [14] The first of these (219/10.55 E) is considered the most pertinent. It is known as the “main class”, and is printed in bold typeface.

INID [51] refers to the IPC assigned to this invention: (H05B 6/80). The IPC is most important and will be dealt with in more detail on page 35. By international agreement, each patent office applies the IPC to its documents, but does so with varying degrees of interpretation. For most issuing authorities, a lot of effort is expended by the examiner in assigning the national classification. In these cases, assignment of the IPC is an additional requirement, and is typically applied by using a national classification/IPC concordance. This appears to be the case in the US where the national system pre-dates the IPC.

There are significant differences in the IPCs applied by each office. It is for this reason that Thomson Scientific continually adds new IPCs to the ***DWPI*** file as each new family member issues, so that all IPCs assigned to the invention will be recorded.

In the example given in Figure 5, the INID [51] IPC (H05B 6/80) — refers to heating by electromagnetic fields [the means of preparing the popcorn] and is not directly related to either the container or the food. If you were employed by a packaging company and had an interest in such an invention, you would not find it looking through the US patents classified by IPC for containers.

INID [58], the Field of Search, lists the US classes which the examiner has searched to ensure that the invention was novel and involved an inventive step. In this case, the examiner has made an extensive search looking through a number of US classes.

2.24 Patent specification descriptors – citations

The References Cited, INID [56], is the list of references that the examiner believes is relevant prior art and which may have contributed to the "narrowing" of the original application. This could be checked if there was a foreign unexamined application published which will almost certainly be a copy of the original application. For the US data the citations are divided into two groups: the US patents and foreign patents. The relevant patent numbers and the month and year in which they were published, are given together with the inventors' names and the US classes. In the case of the foreign patents, the country is given rather than the inventors. Note that, sometimes, the US classifications are also given for these non-domestic documents.

In the example case in Figure 5 (page 29) the examiner has not cited any non-patent literature. It is not at all unusual for an examiner to also cite references from technical journals, textbooks, handbooks, and other reference works. These would also be printed on the front page and would follow the foreign documents under the heading "Other Publications".

In Section 2.29 we will again address the importance of citations, the differences between those cited by the examiners and those given by the applicant as a part of the prior art and/or examples. But, at this stage, it should be recognised that patent documentation experts are increasingly using patent citations as a retrieval tool which first led Thomson Scientific to be a provider of worldwide citations information accessible online as ***Patents Citation Index***™**.**

2.25 Patent specification descriptors – personnel descriptors

The individuals involved with the application; the examiner, his assistant, and the attorneys who acted on behalf of the applicant, are listed. This information can be of assistance, for example, if you were interested in finding what other cases have been assigned to an examiner, the type of claims that he typically allows, the type of reference he cites, and the closeness of those citations to the main thrust of the invention. Also, an independent inventor who needs to find an attorney with expertise in the subject matter of their invention could find this information useful.

2.26 Patent specification descriptors – the abstract

The abstract, INID [57], given on the front page is one which has been written by the patent applicant. In it the applicant generally encapsulates in relatively few words the essence of the patent. However, the vagueness of the author's abstracts is sometime intentional, as the applicant does not want to make too obvious the detail of the invention. Most of the *DWPI* abstracts are based on the full patent specifications and claims, and include details needed to emphasize the novelty of the invention.

2.27 Patent specification descriptors – other data

Finally, after a statement of the number of claims and drawings, an example drawing is given. This drawing is selected by the examiner as being the one which most closely conveys the concept of the invention. As with the abstracts, the selected drawing may not necessarily be the best example for a documentation service to use. Thomson Scientific analysts look at all the drawings and select the one(s) they consider to be the most appropriate; which may well not be the same examples as chosen by examiners. It should also be recognised that the examiner dealing with an application in, say, France or Germany, may choose a different drawing from that of a US examiner dealing with the same application.

2.28 Patent classification schemes

The examination process for patents requires that all documents, relevant to a particular inventive concept, can quickly be gathered for study by the examiner as each new application is dealt with. The physical method of doing this varies from one patent office to another. However, in each, the essential principle is the same: the documents are arranged by the invention's subject and, within that field, by the specific nature of the invention. Thus, the various areas of technology are arranged into a classification scheme, and inventions of a like nature are grouped together within that scheme.

It must be emphasized again that patent office classification schemes have been *devised for patent examiners* primarily, with the requirements of examiners and searchers concerned with intellectual property rights in mind, and not to meet the searching requirements of industry. For example, inventions for grinding cog wheels will be grouped together, whether the cog wheel is for a huge mechanical device, such as a turbine engine, or for a tiny wristwatch. In the chemical field, inventions are grouped according to chemical structures and not by their use. Pharmacologically active compounds will, therefore, be intermingled in the classification with fillers for paint, or adhesives for superglues. So for general information purposes, as distinct from those concerned with determining the patentability of a new invention or validity of an existing one, patent office classification of documents may be only partially helpful.

Another factor to be considered is that the rules for classifying, in a particular patent office, will be influenced by the legal patent definitions in that country. The rules can vary over time so that searching back over a significant period can involve not only coping with changes in the categories of the scheme, but also with changes of classification practice.

The reliable and speedy retrieval of precisely defined subject matter and the easy classification of new subject matter is the principal goal of any patent classification scheme. Similar topics such as moulding plastics, making artificial fibres, laminating plastics, must be grouped together, in this case as "working non-metals". Sometimes, though, the demands of the classification scheme, angled as it is to invention, may seem to scatter a single topic under several subclasses. See the following table.

Table 6 Patent classification schemes. Example of the IPC codes pertaining to personal and domestic articles

A41	Wearing apparel
A41F	Garment fastenings
A43	Footwear
A43C	Fastenings; Laces; Attachments
A44	Haberdashery; Jewellery
A44B	Buttons, pins, buckles, slide fasteners, etc.

Explanations contained in the classification schedules clarify what each subclass should contain, and delineate the boundaries between each of the terms. Thus, A44B is intended to cover buckles and slide fasteners whether used as haberdashery or otherwise, whereas A41F and A43C 11/12 (which specifically cites "slide fasteners") are restricted to fasteners specially adapted for garments and shoes respectively. The information searcher would probably be wiser to look at all three files, since the interpretation of the distinction by examiners in different offices may well vary.

Further, subdivision of the subjects is also necessary but is determined by the way in which it is meaningful to subdivide and also by the extent to which subdivision is necessary. Patent Classifications are essentially pragmatic. Headings are subdivided only if the number of inventions in that category is high enough to justify subdivision. General classification schemes also take the same sort of factor into account, but the areas in need of subdivision may not correspond, as between patents and other forms of technical literature.

Since it is impractical to describe each of the many different Patent Office Classifications, only the US, European, and the International Patent Classifications are explained in this user manual. Some background on the International Patent classification system is useful for users because it is used in ***DWPI*** files. It will be seen that these classifications differ significantly, which make the establishment of direct concordances between patents from the different systems impractical; though for purposes of rough guidance such concordances exist.

The US Patent Classification

The US Patent Classification has 462 broad categories ("classes") of technological information and more than 153,000 detailed subdivisions ["subclasses"]. About 2,500 new subclasses are being added each year to accommodate technological advances. The classes are arranged in a systematic manner by subject. The 462 classes are brought together into three main groups used for the arrangement of entries in the Official Gazette; namely, General and Mechanical, Chemical and Electrical.

One very important feature of the US Classification, or any national patent classification scheme, is that it is constantly being adapted and extended in order to keep pace with technological development and to increase the scheme's efficiency. As innovations are developed and new technology emerges, selected portions of the patent search files are reviewed to determine the need for adding new classifications. This ongoing reclassification program involves an analysis of all patents in a given technology. The USPTO then restructures the classification system for the new technology to increase the access to, and the reliability of, the patent search file.

Until 1 October, 1995, foreign patent documents from other countries were classified into the USPC system. Beginning in October 1995, however, newly published foreign patent documents were no longer classified into the USPC system. Also, after 1 October, 1995, copies of foreign documents in the examiner files were no longer automatically reclassified during a USPC reclassification project. In some cases, the foreign documents associated with a reclassification project remain in the old US classifications, which are renamed "Foreign Patent Art Collections." These collections appear at the end of the class that includes the newly created US classification schedule.

In general, the US Classification notations applied to patents are numeric and take the form: "123/250", where "123" is the class and "250" is the subclass. The numbering of the main classes is not continuous and the highest class number is currently 987 [Organic compounds containing a Bi, Sb, As, or P atom or containing a metal atom of the 6th to 8th group of the periodic system]. The subjects do not always follow in logical numerical sequence, for instance, telegraphy is 178 while telecommunications is at 455.

The International Patent Classification (IPC)

The International Patent Classification system has been evolved under the auspices of WIPO and represents an appreciable cooperative effort on the part of many countries. The International Patent Classification is based on the Strasbourg Agreement concerning the International Patent Classification, which was concluded in 1971 and entered into force in 1975. The Agreement is open to States which are party to the Paris Convention for the Protection of Industrial Property. In May 2006, 56 states were party to or signatory of the Strasbourg Agreement. However, the industrial property offices of more than 90 states, four regional offices and the International Bureau of WIPO under the Patent Cooperation Treaty (PCT) actually use the IPC.

The Strasbourg Agreement created the IPC Union which has an Assembly. Each member state of the Union is a member of the Assembly. Among the most important tasks of the Assembly is the adoption of the biennial program and budget of the Union.

The Strasbourg Agreement establishes the International Patent Classification which, in its eighth edition, divides technology into eight sections with approximately 70,000 subdivisions. Each subdivision has a symbol consisting of Arabic numerals and letters of the Latin alphabet.

The appropriate IPC symbols are indicated on each patent document (published patent applications and granted patents), of which about 1,000,000 were issued each year in the last 10 years. The IPC symbols are allotted by the national or regional industrial property office that publishes the patent document.

The scheme comprises: the schedules, arranged by sections A-H; a catchword index; a guide; and a concordance with earlier editions. Sections A-H are as follows:

Table 7 The sections (A-H) of the International Patent Classification (IPC)

A: Human Necessities
B: Performing Operations; Transporting
C: Chemistry; Metallurgy
D: Textiles; Paper
E: Fixed Constructions
F: Mechanical Engineering; Lighting; Heating; Weapons; Blasting
G: Physics
H: Electricity

Prior to the introduction of the eight edition, the IPC was revised every five years by WIPO and a new edition issued. This helped ensure that the indexing system kept pace with changing technology, with new codes added to reflect technological advances, and existing codes sub-divided or discontinued to reflect changes in patenting activity. The first edition was published in 1968, the second in 1974, the third in 1979, the fourth in 1984, the fifth in 1989, the sixth in January 1995, and the seventh in January 2000. The edition in use was shown by a superscript number as seen in Figure 5 (INID [51]) on the front of patent documents. The patents in the family given in Figures 2-4 (pages 22, 23 and 24), each have IPCs[5].

However, a major limitation of the introduction of a new edition was that revisions only became effective from the date of introduction forwards. This meant that for a full retrospective search it was necessary to use IPCs from all previous editions.

IPC Reform

In March 2000, a strategic plan for reform of the IPC system was approved and the eighth edition of the IPC came into force on 1 January, 2006. As a result reformed IPC symbols have been applied on most of the patent applications published after 1 January, 2006.

A reform for the eighth edition was such that all the documents held in the EPO's Master Classification Database (MCD) are now subject to ongoing reclassification with each future revision of IPC codes. This should eventually ensure that only one version of the IPC, the current version of the IPC Reform, is required for complete retrieval of all relevant documents, thereby removing one of the major limitations of editions 1-7.

The main features of the Reformed IPC are summarised below:

- The IPC has been divided into core and advanced levels to meet different user needs.
- Different revision cycles have been introduced for the core level (three-year revision cycle) and the advanced level (continuous revision).
- Patent documents will be reclassified in line with changes to the core and advanced levels whenever the IPC is revised to eliminate the need for searching past versions of the IPC.
- Further information such as classification definitions or structural chemical formulae has been introduced in the electronic version of the IPC to better illustrate or explain classifications.
- General principles of classification and classification rules have been revised where appropriate. This includes a change in definition distinguishing between "invention" and "additional" information described within a patent specification.

The main characteristics of the two levels of classifications are:

- Core level:
  - Approximately 20,000 Classification groups.
  - Used for search in small patent offices, dissemination of patent information, data routing, and statistics.
  - Revision cycle: 3 years using the traditional revision procedure.

- Advanced level:
  - Approximately 70,000 Classification groups.
  - Used for search in international patent files (PCT Minimum Documentation group).
  - Revised by a Special Subcommittee according to an accelerated procedure.
  - Revision cycle: no revision in the first year of implementation (2006), but quarterly thereafter.

Access to the worldwide collection of patent documents is via the MCD, developed and maintained by the EPO. All the reclassifications as reflected in the MCD will also be implemented into *DWPI*.

Although the basic principles and rules of classification have not changed with the reform of the IPC, the definition of the invention information on which the classification is based has changed. According to the new definition, "invention information is technical information in the total disclosure of a patent document (for example, description, drawings, claims) that represent an addition to the state of the art."

Previously the invention information was limited to the claims of the patent .

The definition of "additional information" has also changed in the new IPC edition:

"Additional information is non-trivial technical information which does not in itself represent an addition to the state of the art but might constitute useful information for the searcher".

A whole range of attributes that accompany the IPC Reform symbols give information about, for example, whether the classification has been machine assisted or only assigned by humans, or whether the symbol applies to the inventive information or the additional information, etc.

A list of attributes with their definitions can be found in WIPO ST8.

The International Patent Classification Eighth Edition (2006) Guide is available at: www.wipo.int/classifications/ipc/en/ipc_ce/34/pdf/ipc_ce34_10_6.pdf

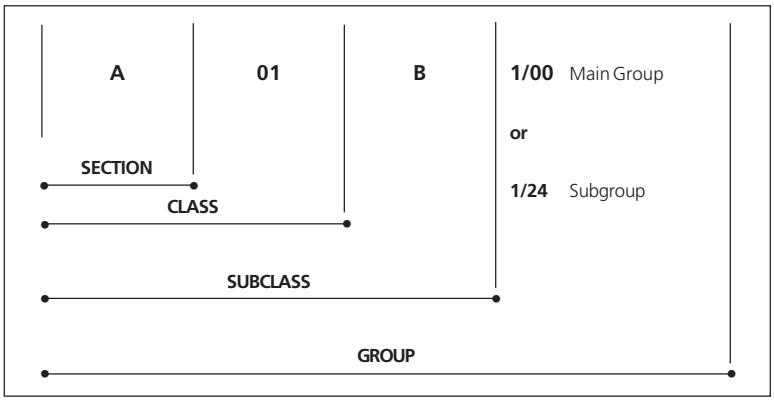
Appendix 7 contains information about IPC Reform implementation by the patent offices in countries covered in *DWPI*.

Hierachy

The sample page from the IPC schedule contained in Figure 7 illustrates the hierarchical nature of the classification system. Each of the eight Sections is broken down into Classes, such as A01: agriculture, forestry, etc.; each Class is divided into Subclasses, e.g., A01B: soil working in agriculture or forestry, etc.; each Subclass into Main groups, e.g., A01B 1/00: hand tools. Down to this level, the division is complete, and at each level the entire contents of that level are divided up into the level below.

Each Main group is divided into Sub-groups, e.g., A01B 1/02: spades, shovels. It is important to note that at this level the division is not necessarily complete; in other words, there may be subjects which are not covered by any of the subgroups and are, therefore, classified at main group level. Also, at this level the hierarchy is not expressed in the notation, but in the dot structure, as shown in Figure 7 (page 41).

Figure 6 Hierarchical structure of an International Patent Classification



Each dot represents the next level in the hierarchy (which are termed 1 dot subgroups, 2 dot subgroups, etc.). It is easy for the human eye to see and take in the hierarchy and realise that 3/62 is logically part of 3/60, which in turn is logically part of 3/58, etc., but it is very important to remember when searching online that the dot structure is not built into the database index; searching for patents classified at subgroup A01B 3/58 will retrieve just that, not patents classified at, for example, 3/60. Thomson Scientific databases allow searching at Subclass, Main group or Subgroup.

The hierarchical structure has two important consequences. Firstly, all Subgroup titles have to be read in the context of the Main group to which they belong. In Figure 7, the printed title at Subgroup A01B 1/16 reads: Tools for uprooting weeds, but this must be referred to as: Hand tools for uprooting weeds, because of the title of the main group. Secondly, all notes will apply to all lower levels of the hierarchy.

The European Patent Classification (EC or ECLA)

The European Patent Classification is based on the IPC and is also a dynamic classification system, continually revised. The European Patent Office has further refined the International Patent Classification by adding subgroups. This refined classification system is called the European Patent Classification. There are more than 132,200 subdivisions.

The published patent applications are classified by EPO examiners according to the European Patent Classification, to enable high quality searches.

ECLA is applied to patent documents of the following countries: AT, AU, BE, CA, CH, DE, EP, FR, GB, LU, US, and WO. JP and SU/RU are not systematically classified according to ECLA. The documents are classified as soon as possible after publication, with only one member per family (first to arrive at the EPO) being intellectually classified. It can take from 2-3 weeks up to several months after the publication date to have the ECLA classes assigned on a document, depending on the country (EP are processed faster) and the technology.

The classification is made up by a letter, denoting the IPC section, followed by a number (2 digits), denoting the IPC class. Optionally, the classification can be followed by a sequence of a letter, denoting the IPC subclass, a number (variable, 1-3 digits), denoting the IPC main group, a forward slash "/", a number (variable, 1-3 digits), denoting the IPC subgroup, for example, F16F15/26R.

Principles of Classification

Patent documents can be classified by one of two principles. Documents relating to similar solutions to the same technical problem can be grouped together; this is known as **classification by function** or **function-oriented.** A valve for controlling the flow of fluids is essentially the same piece of equipment whether it is being used in a brewery or a sewage treatment plant. Alternatively, documents can be grouped according to the industrial art in which the problem arises, e.g., brewing technology; this is known as **classification by application** or **industry-oriented**.

A patent classification scheme must be based on one of these principles if multiple cross-referencing is to be avoided. Although the IPC is in principle mainly function-oriented, it does, in fact, combine both approaches.

Some functions are so characteristically, if not exclusively, relevant to certain branches of industry that it is natural to classify them under such branches. For example, spinning, weaving, and knitting mainly concern textiles and it is only natural to regard them as mainly relevant to the textile industry. And indeed, they appear in the IPC under Section D ("Textiles; Paper"). On the other hand, conveying, packing, storing, hoisting, lifting, and hauling are functions which concern almost any branch of industry. Inventions relating to these functions lend themselves naturally to a "function-oriented" classification. And indeed, they appear in the IPC under Section B ("Performing Operations; Transporting"). This can lead to inconsistency between patent offices. To overcome this inconsistency, searchers should use both possible classmarks. For

example, when retrieving patents online for a gas burner for bakers' ovens designed to produce an even temperature distribution, a searcher must look at A21B 001/28 (Bakers ovens heated by gaseous combustion products) and at F23D (combustion apparatus using fluent fuel).

Figure 7 Sample page from IPC schedules

AGRICULTURE

A 01 AGRICULTURE; FORESTRY; ANIMAL HUSBANDRY; HUNTING; TRAPPING; FISHING

A 01 B SOIL WORKING IN AGRICULTURE OR FORESTRY; PARTS, DETAILS, OR ACCESSORIES OF AGRICULTURAL MACHINES OR IMPLEMENTS, IN GENERAL (making or covering furrows or holes for sowing, planting or manuring A 01 C 5/00; machines for harvesting root crops A 01 D; mowers convertible to soil working apparatus or capable of soil working A 01 D 42/04; mowers combined with soil working implements A 01 D 43/12; soil working for engineering purposes E 01, E 02, E 21)

Subclass Index

1/00 Hand tools (edge trimmers for lawns A 01 G 3/06)
1/02 . Spades; Shovels
1/04 . . with teeth
1/06 . Hoes; Hand cultivators
1/08 . . with a single blade
1/10 . . with two or more blades
1/12 . . with blades provided with teeth
1/14 . . with teeth only
1/16 . Tools for uprooting weeds
1/18 . . Tong-like tools
1/20 . Combinations of different kinds of hand tools
1/22 . Attaching the blades or the like to handles (handles for tools, or their attachment, in general B 25 G); Interchangeable or adjustable blades
1/24 . for treating meadows or lawns **[2]**

Ploughs

3/00 Ploughs with fixed plough-shares
3/02 . Man-driven ploughs
3/04 . Animal-drawn ploughs
3/06 . . without alternating possibility, i.e. incapable of making an adjacent furrow on return journey
3/08 . . . Swing ploughs
3/10 . . . Trussed-beam ploughs; Single-wheel ploughs
3/12 . . . Two-wheel beam ploughs
3/14 . . . Frame ploughs
3/16 . . Alternating ploughs, i.e. capable of making an adjacent furrow on return journey
3/18 . . . Turn-wrest ploughs
3/20 . . . Balance ploughs
3/22 . . . with parallel plough units used alternately
3/24 . Tractor-drawn ploughs (3/04 takes precedence)
3/26 . . without alternating possibility
3/28 . . Alternating ploughs
3/30 . . . Turn-wrest ploughs
3/32 . . . Balance ploughs
3/34 . . . with parallel plough units used alternately
3/36 . Ploughs mounted on tractors
3/38 . . without alternating possibility
3/40 . . Alternating ploughs
3/42 . . . Turn-wrest ploughs
3/421 . . . . with a headstock frame made in one piece **[2]**
3/426 . . . . with a headstock frame made of two or more parts **[2]**
3/44 . . . with parallel plough units used alternately
3/46 . Ploughs supported partly by tractor and partly by their own wheels
3/50 . Self-propelled ploughs
3/52 . . with three or more wheels, or endless tracks
3/54 . . . without alternating possibility
3/56 . . . Alternating ploughs
3/58 . . with two wheels
3/60 . . . Alternating ploughs
3/62 . . . . Balance ploughs
3/64 . Cable ploughs; Indicating or signalling devices for cable plough systems
3/66 . . with motor-driven winding apparatus mounted on the plough
3/68 . . Cable systems with one or two engines
3/70 . . . Systems with one engine for working uphill
3/72 . . Means for anchoring the cables
3/74 . Use of electric power for propelling ploughs (electric current collectors B 60 L 5/00)

Problems in use

Even without the function and application problem, one is bound to get for the same invention, different classifications from different offices, for a number of reasons:

- The differing patent laws, e.g. with respect to non-obviousness, will influence the finding needs of examiners, and hence the classification policy of the office.
- The different language editions of the IPC: terms rarely have the same significance in different languages.
- Patent equivalents, though describing the same invention, may not be written in the same way or stress the same points, for example, particular applications may be emphasised.
- It is also important to note that some patent offices do not classify to the Subgroup level. Searching the IPC at the Subgroup level is unlikely to provide complete retrieval.

A good rule to keep in mind while performing a search is: even if you think you have found the subgroup which is exactly what you want, searching only at that classmark is often not good enough.

The figures 2 and 3 show parts of a US patent and its Canadian patent. You will note that the IPC assigned by the Canadian examiner was A43C 015/16 (INID [51]). The USPTO examiner assigned the US patent equivalent to A43B 5/00 and A43B 5/02 (INID [51]).

It is for this reason that Thomson Scientific adds to its records, on dealing with equivalent patents, all the IPCs on the newly issued documents. A searcher would have retrieved the example family if he had searched A43B 5/00, even though this IPC was not on the basic document. There are countless examples of inconsistencies in the application of IPCs, but it is a problem that has been countered by the continuous refinement and development of the Thomson Scientific classification scheme.

Additional information and indexing

Patent offices are obliged by IPC convention to classify the inventive step information. They may also at their discretion classify additional information disclosed in the patent. In addition to classification, a system of indexing may also be used where specially indicated in the classification. This additional information is termed hybrid classification.

The difference between classification and indexing is that classification attempts to locate the invention in one category (or in a limited number of categories) that best describe the whole invention. Whereas indexing codes try to identify more specific selection criteria about the subject matter (e.g., components of a mixture, or uses of a product).

Both additional information and indexing codes are usually associated with the attribute N for non-inventive in the IPC Reform. In previous editions of the IPC they could be found after the inventive classification and a double oblique stroke [//]. Indexing codes used to have the same type of notation, except that the slash [/] within the code was replaced by a colon [:]. For example, B29C 65/08 // B69K 83:00, B29L 23:18 where B29C 65/08 was the classification code (joining preformed plastics parts using ultrasonics), and the remaining two codes were indexing codes (indicating, respectively, that the plastic is a silicon-containing polymer and that a hose is formed). Indexing codes were sometimes linked to a classifying symbol and in this case they were enclosed together in parentheses, e.g., (C08F 255/04, 214:06) where C08F 255/04 is the classification and C08F 214:06 is the indexing code.

Notes

Notes are an important part of IPC and essential to its correct use. There are a number of different types. One takes the form of references following the subclass title which gives information on subjects not classified at that subclass. It is important to check for these before searching at the group or subgroup level because a note applies to the entire subclass. For example, in Figure 7, hand tools for making holes for planting will not be classified in A01B 1/00, because of the implicit note, given at A01B; "Hand tools for making or covering holes .... A01C 5/00".

Where references to other headings do not apply to a whole subclass, they will be given at the appropriate group or subgroup level, e.g. at A01B 1/00 and 1/22. They will apply to the whole group, or the particular subgroup, (including any dot subgroups within the subgroup) as appropriate.

The reference may send the user to a specific subgroup, subclass or even class, such as the note at A01B. Or the note may be non-specific and leave the user to do more work. This type of reference (away from the number to a more appropriate number) is the type of note most frequently encountered in IPCs.

Another frequently encountered type of note is the **precedence note**. This note indicates which of two possible classmarks should be used for a subject. There is an example at A01B 3/24 (Figure 7) while no reciprocal note is given at A01B 3/04.

It is important when searching for documents, to check whether the classification schedules for the subject have been changed between IPC editions. Such changes are indicated in the text in italics, while material introduced in earlier editions has [2], [3], [4], [5], [6] or [7] printed in **bold** beside the classmark. There is also a separate Concordance, showing alterations made between the IPC editions.

The *Guide to the IPC* contains much useful information and advice on how the classification system works, and should certainly be read before using the IPC. The **Catchword Index** is useful as a starting point in using the schedules, but it would be best to refer to the **schedules** first to check for the context and for relevant notes. The *Catchword Index* is very consistent in the terms and concepts it covers.

2.29 More on patent citations

It was pointed out in Section 2.17 that, as a part of the patent application process, the examiner will cite references which contain relevant prior art and which may have led to a narrowing of the claims of the application.

These references may be of three types: (a) domestic patents, (b) foreign patents, and (c) non-patent literature. Only a few of the patent issuing authorities provide details of the references cited in the documents that are made available to the public. Most important are the US patents where the citations are given on the front page (INID Code [56]). The EPO and PCT documents also provide citations as a part of the Search Reports.

These citations differ from those in the general literature because they have been referenced by the examiner as being closely related to the application. They are therefore to be considered very pertinent to the subject matter — especially the references to other patents.

A patent applicant may also give references to other patents, journal articles, etc. These references are typically located in the body of the application (specification), particularly as a part of the description of the prior art. Such citations are more difficult to capture, but can be as important as the examiner citations.

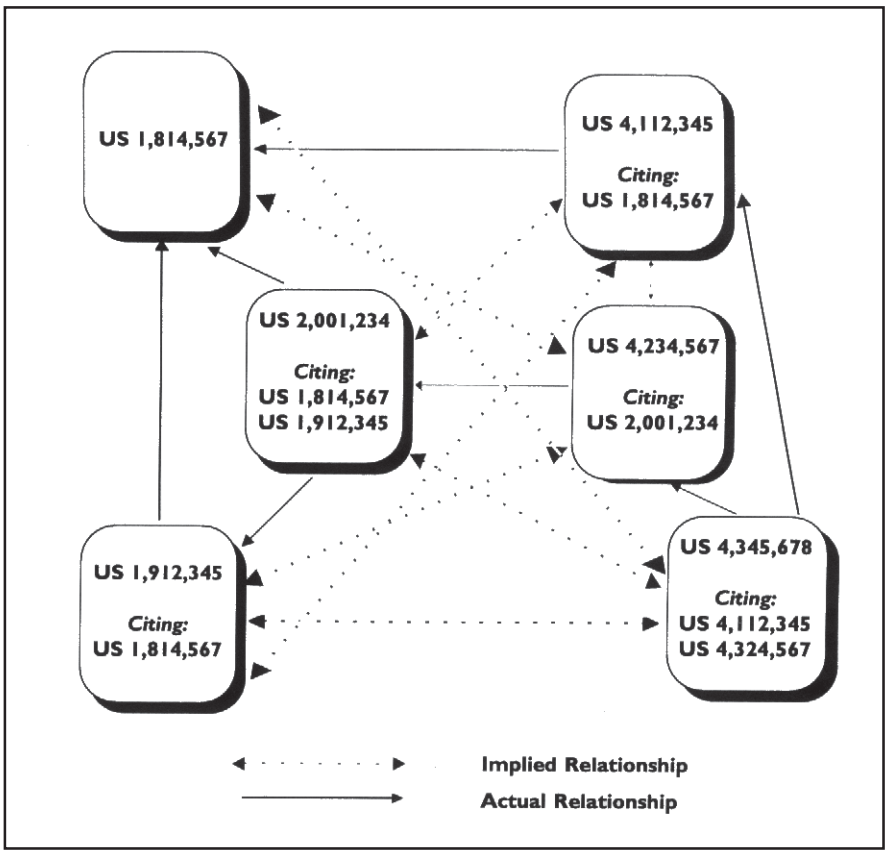
Despite some shortcomings, the growing interest in patent citations is essentially for two reasons: (a) providing "complete" subject retrieval, and (b) forward searching.

Complete subject retrieval

To understand the relevance of citations for complete subject retrieval, consider the graphical representation of a fictitious patent search (Figure 8). Let us assume that we have conducted a search of ***DWPI*** files looking for photocopier toner. As a result, we find our search retrieves the record for US 4,234,567.

A search of US4,234,567 in the ***Patents Citation Index*** shows that the examiner has cited US 2,001,234; there is, thus, a relationship between the two patents and it will benefit us to look at US 2,001,234. When we go back into *DWPI* files and retrieve this patent document, we find that it concerns an invention for a carbon powder composition, one of the uses of which "may be as a toner for xerography". Moreover, we find that the examiner of US 2,001,234 has cited two other patents: US 1,912,345 and 1,814,567. There is, therefore, an ***implied*** relationship (represented in Figure 7 by dotted lines) between these two patents (US 1,912,345 and US 1,814,567) and the one we retrieved (US 4,234,5657). On looking at US 1,912,345 we discover that it concerns a method for dispersing ingredients in powder compositions, while US 1,814,567 — which is additionally cited by US 1,912,345 — is for an invention relating to dry materials mixing apparatus.

Figure 8 A patent citation network



For our search to be truly comprehensive and to retrieve *all* related information, we should go one step further to see if any other documents cite any of those patents for which there is an actual or implied relationship to US 4,234,567. This involves searching the citation field. On so doing, we retrieve two more documents, US 4,112,345 and US 4,345,678. The first of these has a patent number reasonably close to that of our retrieved document (US4,234,567) and it is possible that it was being processed at the USPTO at the time as the retrieved document. Therefore, the examiner may have been unaware of it and unable to cite it in the original patent.

US 4,112,345 cites US 1,814,567, and also concerns powder mixing. Again, there is an implied relationship between US 4,112,345 and the patent that we originally retrieved. US 4,345,678, relating to a new cartridge for laser jet printers, cites two patents, the one we retrieved to which, therefore, there is a direct relationship – and US 4,112,345. This direct relationship between US 4,345,678 and US 4,112,345 strengthens the implication that US 4,112,345 and US 4,234,567 are related.

Using this method of cross-referencing, we can identify all the patents related to a particular subject. This method works, even if we missed the related patents in our original retrieval, because the concepts we searched for may not have been expressed in quite the right way. The complete set of relationships, as graphically illustrated in Figure 8, is referred to as a ***citation network***.

The lesson is that when searching for subject matter, whether for the purpose of finding prior art, or merely for technological reasons, such as "what is new in the world of photocopier toners", one should completely search all the cited patents. This in-depth searching to uncover both actual and implied relationships will lead to more comprehensive answer sets.

Forward searching

The relationship between US 4,234,567 and US 4,345,678 represents **forward searching**: at some time after US 4,234,567 was issued, another patent application was filed (and became US 4,345,678) which concerned a related technology. Moreover, suppose we owned US4,234,567. A good source for additional competitive intelligence would be to monitor other patents that have our own patent cited in the examiner's prior art search. This could provide opportunities for licensing or even a potential infringement. Thus, citation searching is an excellent means to keep up-to-date on competitors.

A worldwide citations search in ***Patents Citation Index*** may:

- Improve prior art searching.
- Increase litigation success.
- Simplify monitoring of the patent portfolio.
- Enhance competitive intelligence analysis.

In addition, continually watching the citations of newly issued patents can serve as current awareness of what is happening in the technology of interest. In our example, because photocopier toners are of interest, setting up an SDI14 for any patents citing any of the six documents we have identified as having a relationship, will provide further intelligence.

This concludes Section 2 of this User Manual. For more information related to its contents, please contact your local Thomson Scientific representative who can provide a further list of sources, containing more detail on patent documentation, as well as other reference works which contain complete texts or summaries of the most important international agreements concerning patents.

Endnotes

[1] Novelty can be: a new compound; a new method of production; a new use; a new composition; a new purification; or a new detection/analysis; new apparatus or equipment/machinery/device.

[2] This statement remains valid even in the case of the so-called "regional" or "international" patents, such as the European and PCT patents. These supra-national patent systems simplify the application filing and examination process, but it is still necessary for the application to be processed through the individual systems of the countries, the Designated States, in which protection is sought.

[3] The Convention was revised in Brussels (1900), Washington (1911), The Hague (1925), London (1934), Lisbon (1958), and Stockholm (1967).

[4] The acronym "WIPO" stands for World Intellectual Property Organisation. Headquartered in Geneva, Switzerland, WIPO is one of the fourteen specialized agencies of the United Nations Organisation. WIPO administers international industrial property affairs.

[5] The importance of understanding priorities and patent families cannot be over-emphasized. It is useful to appreciate the way in which Thomson Scientific organizes its data for its products and services. Priorities and patent families will be dealt with in detail in **Section 2.15.**

[6] Thomson Scientific indexes Markush structures which are searchable in the **Merged Markush Service**.

[7] Hence the need for R&D personnel to keep comprehensive laboratory notebooks.

[8] In keeping with common practice, unless there is a specific reason to do so, no distinction will be made henceforth in this User Manual between applications and specifications; collectively they are referred to as "patents".

[9] For a complete list of INID codes, see Appendix 2.

[10] See Section 2.15 on patent families.

[11] The German 'G' and 'T' suffixes were first used by Thomson Scientific as a means of identifying the document within the "old system" restriction of 7-digits (numerics) for the patent number. They have been retained to maintain a consistent approach within the database. See the online User Guides on the various hosts for more information about patent number formats. For more information on Germany, see Section 3 of this User Guide.

[12] For the same reasons explained on the previous page.

[13] As opposed to the inventor, who may be resident in Japan.

[14] An SDI, which stands for Selective Dissemination of Information, enables a searcher to set up an electronic current awareness profile online via the host of choice. Results are automatically forwarded on a specified basis.

3 Source Documents

3.1 Introduction

Section 3 of this User Manual provides general information about patents from each of the 41 patent issuing authorities. Also included are details of the patents related sources: *International Technology Disclosures* and *Research Disclosure*. An explanation of the information that has been provided, as well as how it can be used, is given on pages 53-55. These pages provide essential information for understanding the general layout of Section 3.

The layout for each country includes a general description of the most important features of its patent system. We have concentrated on providing users with the type of information that experience has shown to be most frequently asked about, for example:

- How long are patents in force?
- Language of the documents?
- Is the country a member of EPC and/or PCT and since when?
- Does the respective patent office publish an "official gazette"?

Following the general descriptions of each country covered by Thomson Scientific are details of how Thomson Scientific processes the source patent documents received in its system. This section should answer questions like:

- What "kind of document" does *DWPI* cover ?
- When does coverage of a given patent issuing authority commence?
- How does Thomson Scientific modify data, such as application numbers, to conform to Thomson Scientific formats?
- Will there be a *DWPI* abstract available?

An outline of the types of information which Thomson Scientific adds to source documents can be found on the page(s) following each country's general description. For many countries, the manner in which Thomson Scientific treats documents differs according to whether it is considered basic or equivalent. Such detail is to be found in the following pages. It is assumed that the user has a comprehensive understanding of basics, equivalents and Thomson Scientific definitions (see Section 4).

There are two historical concepts which should be explained in order to have a full understanding of ***Derwent World Patents Index*** country coverage.

3.2 Major and Minor countries

The concept of Major and Minor countries evolved as Thomson Scientific expanded its services — in terms of both subject matter and country coverage. The original concept of a Major country was that a Thomson Scientific abstract and manual coding would be available for the basic document; and the concept of Minor country was that a Thomson Scientific abstract and manual coding for the basic would not be available - until a major country equivalent appeared. This terminology is now used in a historical context only.

Moreover, the terms Major and Minor should be viewed in their historical context. Prior to 1970, Thomson Scientific published three patents documentation services: FARMDOC (pharmaceuticals), AGDOC (agrochemicals) and PLASDOC (plastics & polymers). For these services, the information was included from the documents of fifteen countries. In 1970, Thomson Scientific launched its more comprehensive patents service, *Central Patents Index* [later renamed *Chemical Patents Index (CPI)*], which covers all chemical patents. Later, *CPI* covered documents from other countries, but the coverage was not as detailed as that of the original fifteen countries. To distinguish between them, the original countries were termed Major and the subsequently covered countries Minor. When EPC and PCT documents began publication, these documents received Major status.

Later still, in response to client demand for more detailed treatment, some of the Minor countries were promoted to Major. Other newly added countries were assigned Major or Minor status as appropriate. In some cases, the status was contingent on the availability of the source documents: Thomson Scientific cannot process in great depth documents for which only an entry in an official gazette is available.

Appendix 4 is a table that lists (by Thomson Scientific service) the historical Major/Minor status of the countries covered by Thomson Scientific.

3.3 Thomson Scientific Week or Thomson Scientific Update

Thomson Scientific processes documents in a manner which gets the information contained in them to customers as quickly as possible. In order to expedite this transfer of information, Thomson Scientific does not wait until all the documents issued or documents *received* in a calendar week are available. Thus, in any particular issue of Thomson Scientific products, there will be covered documents whose publication dates span several weeks.

Until the end of 1994, each weekly production cycle was designated a Thomson Scientific Week Number in the format YYYYWW, e.g., 199413, where the first four digits represent the year and the second two digits the week. Users should note that the Thomson Scientific Week designation does not equate exactly to the calendar year: Thomson Scientific Week 13 is not the last week of March, but the thirteenth Thomson Scientific weekly product cycle for the year.

From the start of 1995, a different system was adopted whereby the first products despatched to online hosts in 1995 were designated as Week 199501. The system change meant that the sequence of Thomson Scientific week numbers was 199444, 199445, 199501, 199502, etc..

Moreover, users should be aware that the Thomson Scientific week or update is the timeclock used for all aspects of producing the Thomson Scientific patents portfolio of products. Therefore, questions that relate to any enhancement or change to a Thomson Scientific service (whether electronic or printed) would have as its effective date a given Thomson Scientific week or update. For example, Thomson Scientific began coverage of Taiwanese patent specifications in 1993, more specifically Thomson Scientific week 199324, which contained patents published on January 1, 1993.

The Thomson Scientific week of inclusion is provided in the individual description for each country. Appendix 4 is a table that lists the effective dates of inclusion of each country covered in Thomson Scientific services.

From March 1999, the Thomson Scientific Update (previously referred to as the Thomson Scientific Week) represents a production cycle, and as such may contain a mixture of publication dates for individual countries. From 1999 onwards the number of updates per year has increased from 51 to 82 (for years 2003 to 2006 inclusive).

3.4 COUNTRY (WIPO CODE)

PATENT OFFICE DETAILS

This gives the official address of the Patent Office, the web site (where known) and details of the Patent Office's Official Gazette.

KINDS OF PROTECTION

This section includes the categories of patents obtainable.

The underlying principle of patenting is that, in return for full disclosure of an invention, an inventor becomes entitled to a monopoly on that invention for a limited period of time. This is known as the *term* of the patent. At the end of that period the patent will normally expire and the invention enters the public domain. The terms of the patents are given here.

In some countries it is possible to obtain an extension to the term of a patent, for example as a supplementary protection certificate. Details of the provisions for extending the patent term are given here.

CONVENTION & TREATY MEMBERSHIP

This section lists those conventions and treaties, if any, that the particular country is a signatory of. Where known, the dates the countries became signatories are also given.

FILING FOR PATENTS

This section looks at the information needed by the inventor before filing applications and the processes the application must go through before a patent is granted. This includes:

What is patentable:	Patent Offices have specified the types of application which will be considered for patents. Not all inventions are patentable.
Who may apply:	An inventor may always file an application. However, the rules also allow other applicants to file in lieu of the inventor.
Accepted languages:	The applicant must file the application in the country's official language. (The published document will also be in the official language.) Some patent offices will make special provisions for filing an application in unofficial languages. However, the application must be translated into the official language within a specified time period.
Priority documents:	This indicates whether submitting priority documents, if priority is being claimed, is required by statute.
Examination procedures:	An application can be examined to determine that it is complete, to determine the invention's novelty and to ensure it has industrial application and effects an "inventive step" over the prior art. The request for examination can occur automatically, or by the request of the applicant.
Publication procedures:	The patent document may or not be published by the Patent Office. It also may or may not be available in hardcopy form before it is granted. Patent Offices are increasingly moving towards the electronic publication and paper copies of patents can only be obtained on request. This varies by statute.
Opposition:	The amount of time by statute that the public has to oppose the grant of a patent.

DWPI INPUT

The source document is the original document that Thomson Scientific uses to input initial details about an invention into the production system.

Thomson Scientific inputs specifications as they continue through various publication stages. These stages are represented by a status letter, which may be modified by a single digit.

Thomson Scientific Data Elements Covered: This entry lists the Thomson Scientific data elements which are the Thomson Scientific title, abstract and coding that are included online. The data elements included by Thomson Scientific vary based on whether the document is basic or equivalent. Historically, these data were based on whether the country was considered Major or Minor. This terminology should now be used in a historical context only. (See Section 3.2 for more detail).

Acronyms used:

CPI	**=**	***Chemical Patents Index* (Sections A-M)**
EPI	**=**	***Electrical Patents Index* (Sections S-X)**
EngPI	**=**	***Engineering Patents Index* (Sections P & Q)**
B	**=**	**Basics**
Eq	**=**	**Equivalents**

An asterisk (*) indicates that the notes at the end of the Data Elements section should be read

Dates of Inclusion: Year of inclusion [*DWPI* update of inclusion] This entry indicates when Thomson Scientific began coverage of a particular country.

This information is particularly useful as a reference point for prior art searches. For example, if a user needed to know the effective publication date of pharmaceutical Canadian patents covered by Thomson Scientific, the answer would be: January 29, 1963. (See Canada - Dates of Inclusion.)

Acronyms used:

Pre-CPI	**=**	**Pre-*Chemical Patents Index* (pre-1970)**
FARMDOC	**=**	**Pharmaceutical technologies (CPI Section B)**
AGDOC	**=**	**Agrochemical technologies (CPI Section C)**
PLASDOC	**=**	**Plastic & Polymer technologies (CPI Section A)**
CPI	**=**	***Chemical Patents Index* (formerly Central Patents Index)**
EPI/EngPI	**=**	***Electrical Patents Index* (EPI) and *Engineering Patents Index* (EngPI)**

NUMERATION

Each patent office has its own internal system for assigning application and publication numbers. Most offices assign application numbers comprising a continuous serial number preceded by the year of filing, the serial number starting at 1 at the beginning of each year. Other offices assign a continuous series of numbers not based on the year of filing. Additional numbers can appear at the end of application numbers usually with a full stop or hyphen separator. These are check digits for patent office use.

Patent publication numbers can be derived directly from application numbers or can be separately assigned a set of numbers.

Thomson Scientific reformats some publication numbers for consistency and easy identification e.g. before May 1996 the Japanese Imperial year in JP-B (examined) patents was replaced by the Western (Gregorian) year to distinguish them from the JP-A (unexamined) patents.

The *DWPI* standard format for application numbers is YYYYCC-NNNNNNN where YYYY represents the year of filing, CC the WIPO country code and NNNNNNN the patent office assigned serial number made up to 7 characters with zeros if necessary. In the *DWPI* online files the year has been changed to the 4-digit format retrospectively.

ARGENTINA (AR)

PATENT OFFICE DETAILS

Paseo Colón 717
1063 Buenos Aires
Argentina

www.inpi.gov.ar

KINDS OF PROTECTION

These include patents of invention, patents of addition, precautional (provisional) and revalidation patents. Designs and models are registerable. It should be noted, that it is not clear whether revalidation patents continue to be an option since the introduction of the 1995 Law.

The term of the patent is 20 years from the date of filing. Patents filed before the introduction of the new law on 29.09.1995 have a term of 15 years. There is no provision for extension, however, patents that were pending at the time of introduction of the new law can have their duration extended.

CONVENTION & TREATY MEMBERSHIP

Argentina became a signatory of the Paris Convention (Lisbon text) on 10.02.1967. Argentina is also a signatory of the World Intellectual Property Organisation, and the International Convention for the Protection of New Varieties of Plants

FILING FOR PATENTS

Patents are granted for novel inventions or discoveries which have industrial application and which constitute an inventive step. Since the introduction of the 1995 Law, pharmaceuticals are also patentable.

The patent may be granted to the inventor or his legal successor; a corporation may also apply.

Applications should be made before the invention has been used or has received sufficient publicity. Under the *International Convention*, priority may be claimed if the application is filed within 12 months after filing of the first application in a Convention country. Priority must be claimed at the time of filing and priority documents must be provided.

Applications are examined as to form, unity of invention, patentability and novelty. After 18 months from the date of filing, applications are published for opposition. Until that time the application remains secret, although publication may take place earlier at the request of the applicant.

THOMSON SCIENTIFIC INPUT

DWPI includes the following

A	Examined granted patent

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	-	-	-
Bibliographic	B+Eq	B+Eq	B+Eq
Manual Code	-	-	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Dates of Inclusion: 1974-1976 only

Effective publication dates	
CPI (Sections A-M):	02.1975
EPI/EngPI (Sections P-X):	02.1975

NUMERATION

For examined 'A' document the patent numbers comprises 6-digits.

Patent number 201985 is input by Thomson Scientific as AR-201985-A

Up to 1996, application numbers comprised a continuous series of six digits finishing at around 338400, eg. 334069 filed on 01.11.1995 was input by Thomson Scientific as 1995AR-0334069.

The current application numbering system is of format PXX01YYYYY, where XX is the year of application, 01 indicates a patent application and YYYYY is a serial number beginning at 1 each year. Thus P00 01 02184 is input by Thomson Scientific as 2000AR-0102184.

AUSTRALIA (AU)

PATENT OFFICE DETAILS

Discovery House
47 Bowes Street
Phillip ACT 2606

P.O. Box 200
Woden
ACT 2606

www.ipaustralia.gov.au

The official journal of the Australian Patent Office is the *Australian Journal of Patents* which is published weekly.

KINDS OF PROTECTION

These include patents of invention, patents of addition and petty/innovation patents. Designs are registerable and utility models are generally protectable either under the standard patent or the petty/innovation patent system.

Under the Patents Act 1994 the term of the patent was changed from 16 years to 20 years from filing of the complete specification. This change applies to all patents in force or granted after 01.07.1995. Pharmaceutical patents with a 16 year term which had not expired by 01.07.1995 were extended to 20 years. Normal extension terms (4 years) apply to pharmaceutical patents whose 16 year term expired before 01.07.1995. Petty/Innovation Patents have a term of 1 year from the date of grant (sealing) with the option to extend to a further 6 years from the date the complete specification is lodged.

The Innovation Patent Bill was introduced into the Australian Parliament on 29/06/2000, and, as a result, Innovation Patents have been published since May 2001. Innovation Patents are granted after passing an initial check, with further examination only if decided by the Commissioner or requested by the applicant or a third party. The requirements for an Innovation Patent are the same as those required for a Standard Patent except that the Innovation Patent requires a lower level threshold. It is not possible to enforce an Innovation Patent until it has been examined but it is possible to convert an Innovation Patent to a Standard Patent in the period before it is granted. The period, however, is short. The term of an Innovation Patent is 15 years.

Since 27.01.1999 applications for extension may be made if a pharmaceutical, or pharmaceutical substance is disclosed in the specification, or the term of the patent has not been extended previously. An extension of up to five years is available.

CONVENTION & TREATY MEMBERSHIP

Australia became a member of PCT on 31.03.1980 and is also a signatory to the Paris Convention (Stockholm wording), the Budapest Treaty, the International Convention for the Protection of New Varieties of Plants and the World Intellectual Property Organisation.

FILING FOR PATENTS

A patentable invention is one that is a manner of manufacture according to Section 6 of Australia's State of Monopolies, one which is novel and involves an inventive step and one which is useful. A patent may be revoked if it does not disclose a manner of new manufacture.

The patent may be granted to the inventor, the assignee of the inventor, the legal representative of the inventor or the assignee of the legal representative.

The official language of IP Australia is English. However, Patent Cooperation Treaty applications where Australia is a designated state may appear in a language other than English when published by the IP Australia. This is because Australian patent law gives a 31-month grace period from the international priority application date for the applicant to translate the application into Australia's official language.

An international application under the *Patent Cooperation Treaty* designating Australia, has the effect of an Australian national application. Priority can be claimed providing a verified English translation has been filed within 31 months of the international priority date.

The applicant must request the making of an examination within five years of the date of filing. Failure to do so will result in the lapse of the patent.

Standard patent applications are published 18 months from the first claimed priority date. However, the applicant may request an early publication.

Opposition to the grant of a standard patent may be made within three months from the date of advertisement of acceptance of the complete specification

THOMSON SCIENTIFIC INPUT

Initial input comes from *Australian Official Journal of Patents*, supplemented by the full specifications. *DWPI* includes the following documents:

A	Complete spec. OPI
A1	Complete spec. OPI
A2	Amended OPI document
A4	Granted/OPI Innovation Patent
A5	Amended pre-grant/OPI Innovation Patent
A6	Amended post-grant/OPI Innovation Patent
A8	Corrected document (bibliography)
A9	Corrected document (specification)
B	Accepted Patent
B1	Patent (without preceding A1)
B2	Accepted Standard - previously OPI
B3	Granted Petty - irrespective of whether previously OPI or not
B4	Certified Innovation Patent
B8	Corrected document (bibliographic data) B1 - B4
B9	Republished corrected version of any one of B1 - B4

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Dates of Inclusion: 1983(198310) (also 1963-1969)

Effective publication dates		
Pre-CPI:	FARMDOC	18.01.1963
	AGDOC	01.04.1965
	PLASDOC	03.03.1966
CPI (Sections A-M):		21.12.1982
EPI/EngPI (Sections P-X):		21.12.1982

NUMERATION

Application numbers were previously assigned as a 5-digit number preceded by the year of filing, e.g. 200020670. This is input by Thomson Scientific as 2000AU-0020670. The publication number of unexamined documents is derived from the application number. Thus, in the example above the publication number of the unexamined "A" document would be AU200020670-A.

Prior to 2000, application numbers comprised a 5-digit number followed by the year of filing of the application, e.g. 89827/91. This was input by Thomson Scientific as 1991AU-0089827 and the corresponding publication number was AU9189827-A.

A provisional numbering system exists comprising a number of four characters preceded by two letters, e.g. PA, PB, PC, etc. These provisional numbers appear on Australian priorities filed abroad and on Australian publications as "internal" priorities. On *Derwent World Patents Index* input, the two letters are dropped and the number made up to seven characters e.g. PJ2053 is input as 0002053.

The publication numbers of granted patents comprise a 6-digit continuous series. Thus, examined document 722596 is input as AU-722596-B.

With the introduction of the new innovation patent system in May 2001, IP Australia introduced the first element of a new numbering system of Australian patent documents.

From 05/07/2002, all *new* complete applications for standard patents and *new* provisional applications filed in Australia will also be numbered in accordance with the World Intellectual Property Organisation (WIPO) numbering standard.

The new numbering system of Australia's patent documents is in accord with the preferred WIPO numbering standard of CCYYYYXXXXXX for both applications and patents. The standard identifies CC for the century, YYYY for the year and XXXXXX for a six digit number. A patent application will retain the same number from filing through acceptance and sealing to expiry thus allowing for simpler tracking of the application throughout its life.

Innovation patent applications range from 100000-199999, complete application for standard patents will range from 200000-799999 and provisional applications will range from 900000-999999. Thus, the number 200202113 would represent a provisional application numbered 902113 filed in 2002.

The following table compares the new numbering systems.

	Existing Numbering	New Numbering
Standard patent applications	12345/2001	2001212345
Accepted standard patent applications and granted standard patents	516345	2001212345
Innovation patent applications		2001112345
Provisional applications	PF1234	2001912345

Summary of *DWPI* Formats for New Law Australian Patent Applications, Innovation Patents and Granted Patents

	Application No Format	Publication No Format	Document Kinds*
Standard patent application	2001AU212345	AU2001212345	A1, A2
Innovation patent application	2001AU112345	AU2001112345	A4, A5, A6
Corrected applications	either format shown above	either format shown above	A8, A9
Accepted standard patents	2001AU212345	AU2001212345	B1, B2
Certified innovation patents	2001AU112345	AU2001112345	B4
Granted petty patents	2001AU812345	AU2001812345	B3
Corrected accepted/ granted documents	any of three formats shown above	any of three formats shown above	B8, B9
Provisional applications	2001AU912345		

* For full listing of all document kinds and descriptions see Appendix 3.

AUSTRIA (AT)

PATENT OFFICE DETAILS

P.O.B 95
Dresdner Str. 87
A-1200 Wien

www.patentamt.at

The official journal of the Austrian Patent Office is *Österreichisches Patentblatt* parts I and II. This is published on the 15th of each month.

KINDS OF PROTECTION

These include patents of invention and patents of addition. Industrial designs and models are registerable.

The term of the patent is 20 years from date of application. Filings before 01.12.1984 have a term of 18 years from post-acceptance publication date, but not more than 20 years from the filing date.

An extension of up to five years for pharmaceutical and plant protection chemicals is possible by means of a Supplementary Protection Certificate for a period of five years. This certificate forms a new intellectual property title attached to a patent with the scope narrowed down to the actually registered chemical compound.

CONVENTION & TREATY MEMBERSHIP

Austria became a member of Patent Cooperation Treaty on 23.04.1979 and the European Patent Convention on 01.05.1979 and is also a signatory to the Paris Convention (Stockholm wording), the Budapest Treaty, the International Convention for the Protection of New Varieties of Plants, World Trade Organisation and the World Intellectual Property Organisation.

FILING FOR PATENTS

Patents are granted for inventions that are new with regard to the state of the art, are not obvious to the person skilled in the art and are susceptible of industrial application.

Applications can be made, in German, by the inventor or his legal successor (i.e. individual, firm or corporation).

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. Priority documents must be provided if officially required. For an application under the *PCT* designating Austria, the international application must be filed with the Austrian Patent Office within 30 months of the priority date. Under the *European Patent Convention*, a European Patent confers the same rights as an Austrian patent from the date of publication of grant in the European Patent Bulletin provided a German translation of the specification is filed with the Austrian Patent Office within three months of the date of grant.

Applications are examined as to novelty, inventive step and patentability.

Once accepted, the application will be published in the Patent Bulletin. This opens up the opposition period. A three month postponement of publication may be obtained.

Opposition to the grant of a standard patent may be made within four months from the date of publication of the application. If no opposition is filed, the patent is granted at the end of the four month period.

On 1st July 2005 the Austrian patent law changed. All laid open patent applications are now published 18 months after the filing date. Previously, they were only available on request from the Austrian Patent Office.

In addition, the Austrian Patent Office has adopted a post-grant opposition system in which the opposition period expires two months after the date of the grant. The date of the grant will also now be the same as the publication date of the kind B documents.

THOMSON SCIENTIFIC INPUT

Initial input comes from *Patentblatt II Teil A* supplemented by the full specifications. *DWPI* includes the following documents:

A	Old Law application (examined accepted patent application)
A1	Publication of application with search report
A2	Publication of application without search report
A3	Publication of search report
A4	A2 document published on same day as th B document with no corresponding A3
A5	Examined patent application laid open
A8	Corrected title page of Austrian A document
A9	Complete reprint of Austrian A document
B	Old Law patent (granted patent)
B1	Patent
B2	Patent amended after opposition
B8	Corrected title page of Austrian B document
B9	Complete reprint of Austrian B document

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B*	B*	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Abstracts and coding are provided for CPI basics from 199303; all other entries have Thomson Scientific title plus bibliographic data only. From week 199303 to 199519, EPI basics were assigned Manual Codes if the entry was also included in CPI with an abstract. From week 199519, all EPI basics have been assigned Manual Codes.

Dates of Inclusion: 1975 (197515)

Effective publication dates:

CPI (Sections A-M):	15.03.1975
EPI/EngPI (Sections P-X):	15.03.1975

NUMERATION

Prior to 2000, application numbers were of the format XXXX/YY where XXXX was the serial number (up to four characters) beginning at 1 each year (in some older applications, this number went to 5 characters) and YY was the year of filing. Thus application number 1234/92 was input by Thomson Scientific as 1992AT-0001234.

From 2000, the full year is included in the application number. Thus application number 1768/2000 was input as 2000AT-0001768.

Publication numbers of examined, accepted (but not granted) applications are derived from the application numbers. 1234/92 would thus have a publication number in *DWPI* of AT9201234-A and 1768/2000 would have a publication number of AT200001768-A.

A granted European patent designating Austria is renumbered and assigned a number starting from 1 and preceded by E.

PCT transfers to Austria have a separate series of application numbers beginning at 9001 annually. Thus 9002/89 is input as 1989AT-0009002 with publication number AT8909002-A and 9002/2000 is input as 2000AT-0009002 with publication number AT200009002-A.

A utility model system was introduced in 1994 with application numbers beginning at 1 annually. Austrian utility models are not included as such in *DWPI* but can be claimed as priorities on patents published outside Austria or as transfers to patents inside Austria.

Utility model application/priority 567/99 would be input in *DWPI* as 1999AT-U000567.

Utility models refiled as patents in Austria have application numbers beginning at 8001 annually and quote the utility model application from which they are derived under INID code (67). Application number 8001/2000 would be input in *DWPI* as 2000AT-0008001 with publication number AT200008001-A and application number 8003/99 would be input as 1999AT-0008001 with publication number AT9908003. The utility model application from which these are derived would be input as a priority. Granted patents have patent numbers in a continuous range currently around 409000. Thus 408982 would be input as AT-408982-B.

From October 2005 , the changes to the Austrian patent law are reflected in *DWPI* as follows:

1. Old Law applications continue to publish in the short term. For example, the document with the application number A 8044/2004 is still output in *DWPI* with the publication number AT 200408044 A.
2. New Law applications are published with publication numbers starting from 500001. The fist New Law applications, issued with a publication date of 15th October 2005 were included in *DWPI* update 200574 starting, for example, with the publication number AT 500001 An, where n is 1-9 as per the patent kind given earlier.
3. Old Law granted patents continue to publish in the short term, again with the same format as before, for example: AT 413063 B.
4. New Law granted patents have the following format:

   AT 500001 Bn – where n is 1-9 as per the patent kinds listed previously.

The New Law patent number remains unchanged throughout its lifetime, ie the patent number of the application document will be the same as that for the granted patent, and for any subsequent amendment (e.g. after opposition). Only the patent kind code will change.

BELGIUM (BE)

PATENT OFFICE DETAILS

North Gate III
Boulevard du Roi Albert II, 16
B-1000 Bruxelles

patlib.european-patent-office.org/directory/display_centres.pl?ccode=BE

The official journal of the Belgian Patent Office is *Recueil des Brevets* which is published monthly.

KINDS OF PROTECTION

These are patents of invention only. New applications for importation patents and improvements are not accepted after 01.01.1987.

20 years from date of patent application: only 6 years if no search report has been established. Supplementary Protection Certificates may be granted for a maximum of five years for medicinal or phytopharmaceutical products.

CONVENTION & TREATY MEMBERSHIP

Belgium became a member of the European Patent Convention on 07.10.1977. Patent Cooperation Treaty membership began on 14.12.1981. Belgium is also a signatory of the Paris Convention (Stockholm wording), Budapest Treaty, World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Patents are granted for inventions that are new, that involve inventive activity and that have industrial application. They should be non obvious to the person skilled in the art.

Applications can be made, in French, German and Dutch, by the inventor or his assignee, but it is compulsory for persons having no official residence in Belgium to appoint a local representative.

Under the *International Convention*, priority must be claimed within 12 months of filing of the earliest application in a Convention country. A certified copy of the priority application must be filed within 16 months of the priority date. Under the *European Patent Convention*, a European Patent designating Belgium has the effect of a national patent, providing a translation of the claims in one of the official languages is filed with the Belgian Patent Office. A *PCT* application designating Belgium can only be processed to a grant patent via a European patent. A PCT application is treated strictly as an application for a European patent. There is no "national" phase with respect to PCT applications in Belgium.

The invention is subjected to a search at the applicant's expense. Once granted, the patent file is open to the public and contains the description, the claims, the designs to which the description refers and, where applicable, the examiner's report and any amendments, within 18 months of the date of filing.

THOMSON SCIENTIFIC INPUT

Initial input comes from published Belgian specifications. *DWPI* includes the following documents:

A	Patent
A0	Unexamined application
A3	20 Year patent of invention - initial text with search report
A4	20 Year patent of invention - Changed/corrected text with search report
A5	20 Year patent of invention - amended claims and search report
A6	6-year patent of invention text as filed
A7	6-year patent of invention changed/corrected text
B	Patent of invention - second publication with search report - B3, B5, B6, B7
T	Transfer to BE national patent from EP application – T7

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1963

Effective publication dates:

Delayed:		
pre-CPI:	FARMDOC	25.01.1963
	AGDOC	01.04.1965
	PLASDOC	25.04.1966
CPI (Sections A-M):		30.01.1970
EPI/EngPI (Sections P-X):		25.02.1974
Non-Delayed:		
pre-CPI:	FARMDOC	01.02.1963
	AGDOC	01.04.1965
	PLASDOC	03.05.1966
CPI (Sections A-M):		16.01.1970
EPI/EngPI (Sections P-X):		01.03.1974

NUMERATION

Pre-1987 (old law) Belgian specifications have a 6-figure patent number and are input by Thomson Scientific in the format BE-904321-A. This patent number is also used as the application number though occasionally a 5 or 6 figure application number preceded by the letters "PV" appears as BE priority in other countries.

When European applications are not examined and are converted to Belgian national patents they are assigned to a continuing series of numbers which started at BET000001-T.

A granted European patent designating Belgium is effectively a Belgian patent on grant; however Belgium does not renumber these.

Post 1987, the patent number comprises a 7-character serial starting at 1000001. Thus patent number 1013342A3 was input into *DWPI* as BE-1013342-A3.

The new law patent numbers are not derived from the application numbers. Prior to 2000 application numbers were of the format YYXXXXX where YY was the year of filing and XXXXX was the serial number beginning at 1 annually. Thus serial number 2000/0177 is input as 2000BE-0000177.

Under the pre-1987 law, patents could be issued in Belgium based on an application already published abroad when the application was submitted in Belgium. These "patents of importation" did not claim a priority but quoted the patent number and publication date of the previously issued document. Thomson Scientific, whenever possible, input the application/priority details of the original publication, and when equivalent, posted the Belgium patent to the relevant family. Under the new law, patents of importation were abolished.

BRAZIL (BR)

PATENT OFFICE DETAILS

Praça Mauá 7, 18 andar - Centro
20081-240 Rio de Janeiro - R.J.

www.inpi.gov.br

The official journal of the Brazilian Patent Office is *Revista da Propiedade Industrial-Patentes* which is published weekly.

KINDS OF PROTECTION

These include patents of invention, utility model patents and industrial design registrations.

Patents of invention are granted for a term of 20 years from the filing date. The term of protection will not be less than 10 years from the date of grant of the invention unless INPI is prevented from carrying out substantive examination of the application.

There is no provision for extension.

CONVENTION & TREATY MEMBERSHIP

Brazil became a member of the Patent Cooperation Treaty on 09.04.1978. Brazil is also a signatory of the Paris Convention (Stockholm text), the International Convention for the Protection of New Varieties of Plants and the World Intellectual Property Organisation.

FILING FOR PATENTS

Patents are granted for inventions that satisfy the requirements of novelty, inventive step and industrial application.

Applications can be made, in Portuguese, by the inventor, his legal successor, juristic person or assignees.

Under the *International Convention*, applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. Priority must be claimed on filing. An application filed under *PCT* designating Brazil has the same effect as a national application. International applications must be filed in Brazil within 30 months of the international filing or priority date.

Publication of the application will take place after 18 months counting from the earliest priority date. However, if the application has not been filed with a claim to priority, publication will take place 18 months from the date of filing in Brazil.

Examination of the application will not begin earlier than 60 days after the publication of the application and must be requested by the applicant within 36 months from the filing date.

THOMSON SCIENTIFIC INPUT

Initial input comes from the official gazette *Revista da Propriedade Industrial-Patentes*. *DWPI* includes the following documents:

A	Unexamined application
A3	Pipeline patent application

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	-	-
Bibliographic	Eq	B+Eq	B+Eq
Manual Code	B	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Abstracts and Manual Codes are provided for CPI basics from 198714.

Prior to 199519, EPI basics were assigned Manual Codes if the entry was also included in CPI with an abstract.

From week 199519, all EPI basics have been assigned Manual Codes.

Dates of Inclusion: 1976 (197601)

Effective publication dates:	
CPI (Sections A-M):	16.12.1975
EPI/EngPI (Sections P-X):	16.12.1975

NUMERATION

Application numbers are of the format PIYYXXXXX-Z, where PI indicates a patent application, YY is the year of filing, XXXXX is the serial number beginning at 1 annually and Z is a computer check digit. On older applications computer check digits were not used.

Thus application number PI8703270 is input as 1987BR-0003270 and application PI0002608-5 is input as 2000BR-0002608. The check digit is ignored for Thomson Scientific input purposes.

Publication numbers are derived from the application numbers. Thus in the two examples above PI8703270 has publication number BR8703270-A and PI0002608-5 has publication number BR200002608-A.

PCT transfers are numbered similarly to the national applications with the first application number in any year being that following the final national number.

Utility models are not covered in *DWPI* but can appear as priorities on patents published outside Brazil. They are recognised by the number being preceded by the letters MU. Thomson Scientific input inserts a “U” as the first character of the priority number.

CANADA (CA)

PATENT OFFICE DETAILS

Place du Portage
50 Victoria Street
Hull, Québec K1A OC9
PCT Office
Box PCT
OPIC
50, rue Victoria
Hull, Québec K1A OC9

cipo.gc.ca
opic.gc.ca

The official journal of the Canadian Patent Office is the *Canadian Patent Office Record* which is published weekly.

KINDS OF PROTECTION

These are patents of invention only. Designs are registerable.

For an application having a Canadian filing date on or after 01.10.1989 the resulting patent has a term of 20 years from the Canadian filing date. As of 04.02.1993 pharmaceutical patents also have a term of 20 years. Patents resulting from applications with a Canadian filing date earlier than 01.10.1989 have a term of 17 years from the date of grant.

There is no provision for extension.

CONVENTION & TREATY MEMBERSHIP

Canada became a member of the Patent Cooperation Treaty on 02.01.1990. Canada is also a signatory of the Paris Convention (London text), International Convention for the Protection of New Varieties of Plants, Budapest Treaty, the Convention Establishing the World Intellectual Property Organisation and the World Trade Organisation.

FILING FOR PATENTS

Patents are granted for inventions, which are defined as any new and useful art, process, machine, composition of matter or manufacture. Inventions are also any new or useful improvement in the above.

Applications may be made, in English and French, by the inventor, his legal representative (including an assignee who may be an individual, corporation or firm), or by the inventor jointly with the owner of an interest in the invention.

Under the *International Convention*, applications claiming priority must be filed within 12 months of the original filing date. The applicant must claim priority within six months of the Canadian filing date. A copy of the foreign application or a translation are required only if requested by the Patent Office. Under the *PCT*, a PCT application designating Canada must be completed within 26 months of the priority date.

An application having a Canadian filing date after 01.10.1989 becomes open to public inspection 18 months after the Canadian filing date, or after an earlier priority date if one is claimed. Applications with a Canadian filing date earlier than 01.10.1989 will not become open to public inspection until the patent is granted.

Applications are examined as to novelty and non-obviousness. Applications with a Canadian filing date after 01.10.1989 are only examined upon request of the applicant or a third party. If no request is made within seven years after the Canadian filing date, the application is abandoned. At any time after the patent has been granted, anyone including the patentee can apply for re-examination.

Opposition to the granting of the application can come from a third party but before the granting of the patent.

THOMSON SCIENTIFIC INPUT

Initial input from the *Canadian Patent Office Record*, supplemented by the full specification. *DWPI* includes the following documents:

A	Examined Granted Patent - Old Law
A1	Unexamined Patent - New Law - from 16.10.1990
B	Reissue (Old Law)
C	Granted Patent - Old and New Law - from 16.10.1990
E	Reissue - Old and New Law - from 16.10.1990
F	Re-Examination - from 16.10.1990

Thomson Scientific selects input from the Canadian Patent Journal. PCT applications which pass to the national phase and are assigned Canadian application numbers are now included in this Journal but still do not appear in *Derwent World Patents Index* (*DWPI*). When national phase PCT applications are granted, they are reported in the Journal and covered by Thomson Scientific at the CA-C stage.

DWPI Data Elements included Online:

Data Elements	**CPI**	**EPI**	**EngPI**
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1963

Effective publication dates:

pre-CPI:	FARMDOC	29.01.1963
	AGDOC	06.04.1965
	PLASDOC	26.04.1966
CPI (Sections A-M):		06.01.1970
EPI/EngPI (Sections P-X):		05.03.1974

NUMERATION

OPI publications ("A" documents) under the new law were first published on 31.03.1990. These are numbered from 2,000,000 onwards to distinguish them from the old law ("A" granted patents) which were initially 6 then 7 digits.

Granted "C" patents are numbered according to whether the application was made before or after 01.10.1989, i.e. a publication number below 2000000 for applications filed before 01.10.1989 (so-called Old Law) and above 2000000 for applications filed on or after this date (New Law). For New Law applications the publication number is the same as the application number. For Old Law applications, the publication numbers and application numbers are two separate distinct series, e.g. CA1246714 was filed on 08.01.1986 as 499235.

The Canadian Patent Office used the status "C" code when new law patents were first granted on 16.10.1990 and at the same time switched to status "C" for the old law grants. The publication numbers of these documents are input in the format CA1341000-C and CA2028527-C.

Currently Canadian published patent applications have a status A1, e.g. CA2367823A1 is input by Thomson Scientific as CA2367823-A1.

Occasionally, additional information is added to a Canadian application as a "supplementary disclosure" with a date but no application number assigned. This second filing date is not recorded in the Thomson Scientific system.

The Canadian Patent Office has issued a series of incorrect publication dates on the new Canadian 2-million series documents. The accuracy of these publication dates should be verified.

CHINA (CN)

PATENT OFFICE DETAILS

6 Xi Tu Cheng Road
Ji Men Bridge
Hai Dian District
100088 Beijing

No. 6 Xituchenglu Road
Haidian District
P.O. Box 8020
100088 Beijing

www.sipo.gov.cn

The official gazette of the Chinese Patent Office is *Faming Zhuanli Gongbao* (Gazette for Patents of Invention) which is published weekly.

KINDS OF PROTECTION

These are patents of inventions, utility models and designs.

Patents are granted for a period of 20 years, commencing from the date of filing of the application (including applications claiming priority).

There is no provision for extension.

CONVENTION & TREATY MEMBERSHIP

China became a member of the Patent Cooperation Treaty on 01.01.1994. China is also a signatory to the Paris Convention (Stockholm wording), Budapest Treaty, the International Convention for the Protection of New Varieties of Plants, and the World Intellectual Property Organisation.

FILING FOR PATENTS

Patents are granted for inventions possessing novelty, inventiveness and a practical application.

Applications may be made, in Chinese, by the inventor or assignee. However, non-resident citizens of foreign countries may apply on the basis of reciprocity, a bilateral treaty between China and the applicant's country. Non-resident foreigners must appoint an officially designated Chinese agency to act as agent.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. Applicants claiming priority must make a written declaration at the time of filing. A certified copy of the patent document must be submitted within three months of the Chinese filing date. A Chinese translation may be required.

Applications are published in the Patent Gazette promptly after the expiration of 18 months from the filing date. Once the Patent Office decides to grant the patent, and on receipt of the appropriate payment, a certificate will be issued and the patent will be registered and published in the Patent Gazette.

Applications are examined for form, novelty, inventiveness and practical application. The applicant must request a substantive examination within three years of the filing date, otherwise the application is deemed withdrawn.

Opposition must be made within six months from the date of announcement of the grant of the patent right by the Patent Office. Any individual who considers the grant of a patent to be not confirming to the provisions of the Patent Law may request the Patent Office to revoke the patent.

From 1 July 2006 according to the amendments to the PRC Examination Guidelines the applicant can no longer file any divisional applications derived from another divisional application, unless it is done at the Examiner's request. The applicant can only file divisional applications at any time during the prosecution of the patent application up to two months from the issue date of the notice of grant.

THOMSON SCIENTIFIC INPUT

Initial input comes from English language translations and is supplemented by the official gazette. *DWPI* includes the following documents:

A	Unexamined application
C	Granted patent from 01.01.1993

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B*	B*	B*
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Date of Inclusion: 1987 (198701)

Effective publication dates:	
CPI (Sections A-M):	10.09.1985
EPI/EngPI (Sections P-X):	10.09.1985

NUMERATION

Prior to October 2003, the application number is of the format YY1XXXXX.Z where YY is the year of filing, 1 indicates an application for a patent, XXXXX is a 5-character serial beginning at 1 annually and Z is a computer check digit. For input purposes, the check digit is ignored. Thus, application number 92100825.1 is input as 1992CN-0100082 and 00100825.3 is input as 2000CN-0100825.

Utility model applications exist and are of the format YY2XXXXX.Z. These are not covered in *DWPI* but can be claimed as priorities both on Chinese (internal priorities) and on non-Chinese publications. Thus, 00212356.4 would be input into *DWPI* as 2000CN-U212356.

Applications derived from PCT are of the format YY19XXXX.Z, YY18XXXX.Z and YY8XXXXX.Z where YY is the date of the PCT (and also Chinese) application and XXXX and XXXXX are serial numbers beginning at 1 annually. Currently filing PCT transfers use the format YY8XXXXX.Z. Thus Thomson Scientific input for 97196986.8 is 1997CN-0196986, for 98180001.3 is 1998CN-0180001 and for 00804354.2 is 2000CN-0804354.

Pre-1989, the patent number was derived from the application number which was an 8-digit number consisting of a 2-digit year, followed by 1, followed by the 5-digit serial number e.g., CN88100168. At this time the Thomson Scientific systems were only able to handle 7-digit patent numbers and so for the Thomson Scientific format the 1 following the 2-digit year was dropped e.g. CN8800168.

Patent number 88100168 input by Thomson Scientific as CN8800168-A and 1257397 as CN1257397-A.

From 199216, Thomson Scientific and the online hosts made allowance for longer patent numbers. Thomson Scientific has not changed any CN patent numbers retrospectively, but some of the online hosts have reinstated the 1 that was dropped pre-1989.

From October 2003 onwards the CN application numbers changed to the format:

YYYYNNXXXXXX.Z

where:

YYYY = year of filing (from 2003)

NN= IP rights (10 = patent application, 20 = utility model, 80 = patent application via PCT)

XXXXXX= 6 – digit application number

Z= check digit

e.g. CN 200410123456.7

The next table summarises the various CN application number changes that took place from 2003 to 2004. The *DWPI* formats listed in the table are the formats now used throughout all *DWPI* products after the backfile changes completed by mid-2006.

Summary of CN Application Number and Utility Model Format Changes

Type of Application	Date Applicable	Full CN Application No.	*DWPI* Application No. Format	Publication No. & Kind
Patent Application	Up to 30/09/2003	03100123.4	2003CN100123	1500123A 1100123C
	01/10/2003 to 31/12/2003	200310100123.4	2003CN10100123	1500123A 1100123C
	From 01/01/2004 onwards	200410000123.4	2004CN10000123	1500123A 1100123C
PCT based application	Up to 30/09/2003	03800123.4	2003CN800123	1500123A 1100123C
	01/10/2003 to 31/12/2003	200380100123.4	2003CN80100123	1500123A 1100123C
	From 01/01/2004 onwards	200480000123.4	2004CN80000123	1500123A 1100123C
Utility model application (only available in *DWPI* as foreign priorities	Up to 30/09/2003	03200123.4	2003CN200123	Not covered in *DWPI*
	01/10/2003 to 31/12/2003	200320100123.4	2003CN20100123	Not covered in *DWPI*
	From 01/01/2004 onwards	200420000123.4	2004CN20000123	Not covered in *DWPI*

THE CZECH REPUBLIC (CZ)

PATENT OFFICE DETAILS

Antonína Cermáka 2a
160 68 Praha 6 - Bubenec

www.upv.cz

The offical gazette of the Czech Republic Patent Office is *Vestnik* which is published monthly.

TYPES OF PROTECTION

These are patents of invention and process patents. Industrial designs are registerable. Inventors certificates have been abolished under the new law.

Patents are granted for a term of 20 years from the filing of the application. Cases granted before 01.01.1991 (as Czechoslovakian patents) have a term of 15 years from the application date.

There is no provision for extension.

CONVENTION & TREATY MEMBERSHIP

The Czech Republic became a member of the Patent Cooperation Treaty on 01.01.1993. The Czech Republic is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, International Convention for the Protection of New Varieties of Plants and the World Intellectual Property Organisation.

FILING FOR PATENTS

Patents are granted for an invention that is new, involves an inventive step and has industrial application. Industrial production microorganisms, biological processes and products obtained with their help are also patentable.

Applications may be made, in Czech, by the inventor or the inventor's legal successor.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing date. A certified copy of the basic application on which priority is based must be filed within three months. A Czech translation is filed only upon request.

Patent applications are published 18 months after the filing or priority date of the application, although upon the request of the applicant, publication may be expedited. This request must be made within 12 months of the priority date.

The Czech Republic has a two tiered examination system.

The preliminary examination allows the Patent Office to verify that all formal application requirements are met and that the application does not contain unpatentable subject matter.

The full examination focuses on the novelty and inventive step of the application. Full examination may be initiated by the applicant, a third party or the Patent Office. Requests for a full examination must be made within 36 months of the filing date of the application.

Formal opposition procedures have been abolished by the new law. However third parties may file observations concerning the invention's patentability after the application is published.

THOMSON SCIENTIFIC INPUT

Initial input comes from the official gazette *Vestnik*. *DWPI* includes the following documents:

A3	Unexamined patent application (from 199417)
B6	Granted application (from 199417)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	-	-	-
Bibliographic	B+Eq	B+Eq	B+Eq
Manual Code	B*	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Manual Codes have been assigned to CPI and EPI basics from 199519 onwards.

Date of Inclusion: 1993 (199319)

Effective publication dates:	
CPI (Sections A-M)	01.01.1993 (unexamined)
	17.03.1993 (granted)
EPI/EngPI) (Sections P-X)	01.01.1993 (unexamined)
	17.03.1993 (granted)

NUMERATION

CZ patents published from 01.01.1993-16.02.1994 for the 'A' documents, and 17.03.1993-16.02.1994 for the 'B' documents, previously published by Thomson Scientific as CS, were retrospectively amended.

CZ application numbers started in 1993 and comprise the final two digits of the year of application followed by a number of up to 4 digits. Since January 2000, application numbers comprise the 4-digit year followed by a serial number of up to 4-digits. Thus application number 1234-93 is input by Thomson Scientific as 1993CZ-0001234.

CZ examined accepted patent numbers are of the same format as the application numbers. Thus CZ patent 1234-93 is input by Thomson Scientific as CZ9301234-A3, and 171-2000 input as CZ2000000171-A3.

CZ granted patent numbers comprise a 6-digit continuous serial the first number being that immediately following the last granted patent in the old Czechoslovakia. Thus CZ granted patent 285559 is input by Thomson Scientific as CZ-285559-B6.

PCT transfers are numbered in the same series, the application date being that of the PCT document.

Utility models exist and are input in *DWPI* when claimed as priorities on publications outside the Czech Republic. They are numbered in a continuous series, e.g. utility model application 10689 filed 25/04/2000 is input in *DWPI* as 2000CZ-U010689 and utility 8919 filed 22/01/1999 is input as 1999CZ-U008919.

CZECHOSLOVAKIA (CS)

At the start of 1993, Czechoslovakia divided into the Czech Republic and Slovakia, each having independent patent systems.

PATENT OFFICE DETAILS

Urad prumysloveho vlastnictv-il
(Industrial Property Office)
Revolucni-ulice 7
11346 Prague-1, Czechoslovakia

The official gazette of the Czechoslovakian Patent Office, *Vestnik*, was published monthly.

KINDS OF PROTECTION

These were patents of invention and process patents. Inventors certificates were abolished on 01.01.1990.

Patents were granted for a term of 20 years from the filing of the application. Cases granted before 01.01.1991 have a term of 15 years from the application date.

There is no provision for extension.

CONVENTION & TREATY MEMBERSHIP

Czechoslovakia became a member of the Patent Cooperation Treaty on 20.06.1991. Czechoslovakia was also a signatory of the Paris Convention (Stockholm wording).

FILING FOR PATENTS

Patents were granted for an invention that is new, involves an inventive step and has industrial application. Industrial production microorganisms, biological processes and products obtained with their help are also patentable.

Applications could be made, in Czech, by the inventor or the inventor's legal successor.

Under the *International Convention* applications claiming priority had to be filed within 12 months of the earliest filing in a Convention country. A certified copy of the basic application on which priority is based had to be filed within three months. A Czech translation is filed only upon request.

Patent applications were published between 18 months and three years after the filing or priority date of the application.

Czechoslovakia had a two tiered examination system.

The preliminary examination allowed the Patent Office to verify that all formal application requirements were met and that the application did not contain unpatentable subject matter.

The full examination focused on the novelty and inventive step of the application. Full examination could be initiated by the applicant, a third party or the Patent Office. Requests for a full examination had to be made within 36 months of the filing date of the application.

Formal opposition procedures were abolished by the new law. However third parties could file observations concerning the invention's patentability after the application is published.

THOMSON SCIENTIFIC INPUT

Initial input came from the official gazette *Vestnik*. *DWPI* included the following documents:

A	Examined accepted specification
A1	Patent application
A2	Patent application published in the course of examination (from 199232)
B	Granted patent (from 199301) - issued as CS patents until 16.03.1993

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	-	-	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Date of Inclusion: 1975 (197520)

Effective publication dates:	
CPI (Sections A-M):	28.03.1975
EPI/EngPI (Sections P-X):	28.03.1975

NUMERATION

Application and patent numbers are the same and consist of a 2-digit year preceded by a number up to four digits restarting each year at one, e.g.

Patent number 1017-92 input by Thomson Scientific as CS9201017-A

Application number 1017-92 input by Thomson Scientific as 1992CS-0001017.

CS granted patent numbers comprise a 6-digit continuous serial number range, e.g. CS-278400-B.

CS patents published from 01.01.1993-16.02.1994 (A documents) and from 17.03.1993-16.02.1994 (B documents) were retrospectively amended to CZ by Thomson Scientific.

DENMARK (DK)

PATENT OFFICE DETAILS

Patent-og Varemaerkestyrelsen
Helgeshøj Allé 81
DK-2630 Taastrup

www.dkpto.dk

The official gazette of the Danish Patent Office is *Dansk patenttidende* which is published weekly.

KINDS OF PROTECTION

These are patents of invention only.

Patents are granted for a term of 20 years from the filing or priority date of the application. However, the Patent Act in force since 02.01.1993 establishes a maximum of fifteen years (by way of a Supplementary Protection Certificate for a maximum of five years) for pharmaceuticals.

Supplementary Protection Certificates allow an extension of up to five years from the date of expiry of the basic patent. These are for pharmaceutical patents only.

CONVENTION & TREATY MEMBERSHIP

Denmark became a member of the Patent Cooperation Treaty on 01.12.1978 and the European Patent Convention of 01.01.1990. Denmark is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Patents are granted for inventions that have an industrial application and which differ from what was known prior to the filing date.

Applications may be made, in Danish, by the inventor or his legal successor who may be an individual, a corporation or a firm.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. Priority can be claimed within three months of filing and a certified copy of the priority document must be filed within 16 months of the priorty date. Under the *PCT*, a PCT application designating Denmark has the same effect as a national application filed on the same day. A Danish translation must be filed with the Danish Patent Office within 20 months of the International filing date. Under the *European Patent Convention*, a European patent application is granted preliminary protection in Denmark from the date of publication. However, this only comes into effect providing a translation of the claims is filed with the Danish Patent Office.

Applications are examined as to form, utility of invention, novelty and inventive step. Under the new Act the patentee or a third party can request a re-examination at any time following the opposition period. However, the re-examination may not broaden the scope of the patent.

Patent applications are published 18 months after the filing or priority date (even if the application has not been laid open to public inspection). Notification of the patent being available for inspection occurs via the Official Gazette.

The pre-Grant opposition requirement of an opposition being filed within three months from the date of publication has been replaced in the new Act with a post-Grant provision which allows an opposition to be filed within nine months from the grant of a patent.

THOMSON SCIENTIFIC INPUT

Initial input comes from the Official gazette (*Dansk Patenttidende*) and claims journal (*Dansk Patentansogninger Sommedndrag og Techniger*). *DWPI* includes the following:

A	Open for public inspection application
B	Granted patent (from 199301)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	-	-
Bibliographic	Eq	B+Eq	B+Eq
Manual Code	B*	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

From week 199001 to 199519, EPI basics were assigned Manual Codes if the entry was also included in CPI with an abstract. From week 199519, all EPI basics have been assigned Manual Codes.

Date of Inclusion: 1974 (197445)

Effective publication dates:	
CPI (Sections A-M):	14.10.1974
EPI/EngPI (Sections P-X):	14.10.1974

NUMERATION

Prior to 2000, application numbers were of the format XXXX/YY where XXXX was the serial number beginning at 1 annually and YY was the year of filing. Thus 1786/88 was input as 1988DK-0001786. Since 2000, the application number format has been PAYYYYXXXXX where PA indicates a patent application, YYYY is the year of filing and XXXXX is the serial number beginning at 1 annually. Thus, PA2001 04406 is input as 2000DK-0004406.

The publication number of unexamined patents is derived from the application number. Thus for 1786/88, the publication number is input in *DWPI* as DK8801786-A and for PA2001 04406, the publication number is input as DK200104406.

Granted “B” patents comprise a 6-digit continuous serial e.g. DK168070B input as DK-168070-B.

EUROPEAN PATENTS (EP)

PATENT OFFICE DETAILS

Branch at The Hague / Département de la Haye:
Patentlaan 2
NL-2288 Rijswijk

Berlin sub-office / Département de Berlin
Gitschiner Strasse 103
D - 10969 Berlin

Erhardtstrasse 27
D-80331 Munich

www.european-patent-office.org

The official gazette of the European Patent Office is the *European Patent Bulletin* which is published weekly.

KINDS OF PROTECTION

These are patents of invention. Designs and utility models are protected by the laws of each individual country. However, countries can make provisions to register utility model certificates under the European Patent Convention.

Patents are granted for a term of 20 years from the filing date.

Provisions for extension depend on the national laws of the individual countries. It is not covered by the European Patent Convention.

CONVENTION & TREATY MEMBERSHIP

The European Patent Organisation will recognise priority rights established under the International Convention. Applications filed first in the European Patent Office can generate priority rights under the International Convention. The European Patent Convention makes provision for acceptance of those applications filed under the procedures of the PCT and PCT applications should designate the individual countries and show that filing is through the EPO.

FILING FOR PATENTS

A European patent applications may be filed either in Munich or at its branch in the Hague. Applications may also be filed at the national office providing national law permits this. When an application is filed in a national office, that patent office is obliged to advise the Munich office immediately and to pass the application to Munich within four months of filing or 14 months from the priority date.

Under the *International Convention*, when claiming priority at the date of filing, the applicant must state date and priority country and priority documents must be supplied within 16 months of the priority date. Under the *PCT Chapters I and II*, international applications designating the European Patent Organisation must be filed with the EPO within 31 months of the international filing date, or if priority is claimed, within 31 months of the priority date.

Applications must be filed in one of the European Patent Offices official languages, i.e. English, German or French. Contracting countries which have national languages other than these can file in the national language but must supply a translation within three months of filing but not later that 13 months from the priority date.

Applicants must designate the countries in which the patent is sought. Recently EP applications have automatically listed all contracting states as Designated States. The applicant does not have to make a final selection until six months of the date on which the European Patents Bulletin mentions the publication of the European Search Report.

The European Patent Organisation comprises the following 32 member states as of December 2006, including Malta, which joins on 01.03.2007:

Austria	Liechtenstein
Belgium	Lithuania
Bulgaria	Luxembourg
Cyprus	Malta
Czech Republic	Monaco
Denmark	Netherlands
Estonia	Poland
Finland	Portugal
France	Romania
Germany	Slovakia
Greece	Slovenia
Hungary	Spain
Iceland	Sweden
Ireland	Switzerland
Italy	Turkey
Latvia	United Kingdom

Agreements on extending the protection conferred by European Patents have been signed with Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, and Serbia and Montenegro (formerly jointly known as the Federal Republic of Yugoslavia). Further countries, e.g. Norway, are expected to become members of the EPC in due course.

PCT applications designating EP and passed to the EPO for examination are assigned an EP application and publication number, but no specification is published if the PCT application was in English, French or German.

Where a PCT application transferred to the EPO is identical to a European application, apart from designated states, the two applications are consolidated and the second publication number is abandoned.

Applications are examined for form, novelty, patentability, utility and inventive step. The application is examined for formalities at the Hague. The applicant has six months from the publication date of the search report within which to request examination. If examination is requested, the application is transferred to Munich, although it is possible that some applications will have the preliminary stages of examination conducted in the national patent office. Opposition can be filed within nine months from the date of grant.

Eighteen months from the filing date or from the priority date if claimed, the application is published as the A1 (with a Search Report) or A2 (without a Search Report) specification, in one of the three official languages, but with the title given in all three languages. Delayed European Search Reports for the A2 specification are published as A3 documents, comprising the first page of the specification and the delayed Search Report. Applications filed via the PCT route may have Supplementary Search Report (A4 document) published; where the PCT International Search has not been effected by the EPO or another EPO-approved authority. The granted patent lists the countries (contracting states) in which fees for protection for the invention have been paid; these are known as Designated States.

When a European patent application is granted, it is published as the EP-B patent with the claims translated into the other two official languages, in addition to being in the language of the specification.

European Patent Convention membership should not be confused with membership of the European Union (formerly EEC or European Common Market). Some countries, e.g., Switzerland, are signatories to European Patent Convention but are not members of the European Union.

According to a Decision of the President of the EPO date 09.06.2000, the European patent applications which, on filing contain a sequence listing or consist of more than four hundred pages may be published in electronic form only, e.g. on esp@cenet® and ESPACE®-EP CD-ROM. On request the EPO shall also make them available on another suitable medium.

THOMSON SCIENTIFIC INPUT

The electronic Bulletin is taken as the source for initial input of filing details. *DWPI* includes all published applications. The following kinds of documents are covered:

A	Open for public inspection application (pre-199220)
A1	Open for public inspection application - includes examiner's search report (from 199220)
A2	Open for public inspection application - examiner's search report not included (from 199221)
A3	Examiner's search report only for A2 (from 199221)
A4	Supplementary Search Report
A8	Corrected title page of an A document
A9	Complete reprint of an A document
B	Examined granted patent (pre-199220)
B1	Examined granted patent (from 199220)
B2	Amended patent (from 199220)
B8	Corrected title page of a B document
B9	Complete reprint of a B document

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

The main claim was used as the abstract for granted patents (EP-B) from Thomson Scientific update 198449 until 199801.

Date of Inclusion: 1978 (197849)

Effective publication dates:	
CPI (Sections A-M):	20.12.1978 (unexam.)
	07.01.1981 (granted)
EPI/EngPI (Sections P-X):	20.12.1978 (unexam.)
	07.01.1981 (granted)

NUMERATION

The serial number, issued in a continuous series, for the published patent application and the granted patent are the same and comprise up to 7-characters.

Patent number 1039787-A2 input by Thomson Scientific as EP-1039787-A2.

The application number is an 8-digit number plus a check digit of which the first 2 digits represent the year of filing and the third and fourth digits indicate the country of processing, i.e. the Patent Agent's residence.

Application number 00300177.3 input by Thomson Scientific as 2000EP-0300177 and 88201750.2 input as 1988EP-0201750.

FINLAND (FI)

PATENT OFFICE DETAILS

Arkadiankatu 6 A
FIN-00100 Helsinki

www.prh.fi

The official gazette of the Finnish Patent Office is *Patenttilehti Patenttidning* which is published twice monthly in Finnish and Swedish.

KINDS OF PROTECTION

These are patents of invention only. Patents of addition were abolished in 1980.

Patents are granted for a period of 20 years commencing from the date of application.

Only patents relating to pharmaceuticals or plant protection substances patents can be extended. This is for a period of up to five years by way of Supplementary Protection Certificates (maximum of 15 years from marketing).

TREATY & CONVENTION MEMBERSHIP

Finland became a member of the Patent Cooperation Treaty on 01.10.1980 and the European Patent Convention on 01.03.1996. Finland is also a signatory to the Paris Convention (Stockholm wording), the Budapest Treaty, World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Patents are granted for inventions that have industrial application, and which differ from what was known before the filing date and which are new compared to what was known before the filing date. Also microbiological processes and their products can also be patented.

Applications may be made, in Finnish, by the inventor or his legal successor (who can be an individual, a firm or a corporation).

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. Priority may be claimed within three months of the filing date. A certified copy of the priority documents must be filed within 16 months of the priority date. Under the *PCT*, international applications designating Finland must be filed in the Finnish Patent Office within 31 months (30 months for utility models) of the international filing or priority date. Under the *European Patent Convention*, a European patent will come into effect in Finland providing a translation of the text is filed at the Finnish Patent Office within 3 months of the date of official publication of intended grant.

Applications are examined as to form, utility, inventive step and novelty. Applications passing the examination procedure are accepted for publication. Notification of grant will appear in the Patent Register.

Provisional publication is available and will occur 18 months after the application is filed. Applicants are able to request earlier publication.

According to the old Patents Act (Patent Law) opposition to the grant of a patent may be made within three months from the date of publication of the examined patent application (B-level publications numbered <100000) According to the new Patents Act which entered into force on 01.04.97, the opposition period is nine months after the date of publication of the granted patent.

THOMSON SCIENTIFIC INPUT

Initial input comes from the Finnish Patent Gazette (*Patenttilehti Patenttidning*). *DWPI* covers the following documents:

A	Unexamined application
B	Examined patent application (from 199302)
B1	Granted patent (from 199733)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	-	-	-
Bibliographic	B+Eq	B+Eq	B+Eq
Manual Code	B*	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Basics have been assigned Manual Codes from week 199519.

Date of Inclusion: 1974 (197445)

Effective publication dates:	
CPI (Sections A-M):	30.09.1974
EPI/EngPI (Sections P-X):	30.09.1974

NUMERATION

Prior to 2000, application numbers were of the format YYXXXX where YY was the year of filing and XXXX was the serial number beginning at 1 annually, e.g. 881798. This was input by Thomson Scientific as 1988FI-0001798. Since 2000, application numbers have been of the format YYYYXXXX e.g. 20001604 which is input by Thomson Scientific as 2000FI-0001604.

Publication numbers of the unexamined patents are derived from the application numbers. Thus 881798 has the publication number FI8801798-A and 20001604 has the publication number FI200001604-A.

For examined old law granted B documents a 5-figure continuous serial was used e.g. FI909578 was input in *DWPI* as FI—90957-B.

New law granted patents have been given the status code B1 by Thomson Scientific and have continuous patent numbers starting at 100001. Thus granted Finnish patent 108169 is input as FI-108169-B1.

FRANCE (FR)

PATENT OFFICE DETAILS

26bis rue de St.-Petersbourg
F-75800 Paris Cedex 08

Bureau des dessins et modèles
13bis, rue de l'Epargne
F-60200 Compiègne

Service des marques internationales
Département des Titres
97 Bd. Carnot
59040 Lille Cedex

www.inpi.fr

The official gazette of the French Patent Office is *Bulletin Officiel de la Propriété Industrielle* (BOPI) *Brevets d'invention* which is published weekly.

KINDS OF PROTECTION

These are patents of invention and certificates of utility. The patents of addition system was abolished on 26.11.1990, but an internal priority was established in its place. Under this system, an inventor and the inventor's successor may file one or more patent applications in France and claim priority. Industrial designs and models are registerable.

Patents are granted for a term of 20 years commencing from the date of filing. Certificates of utility are granted for a term of six years from the date of filing. Certificates of addition are granted for the unexpired term of the relevant patent or certificate of utility.

Pharmaceutical patents are eligible for extension through a supplementary protection certificate. The certificate granted after the pharmaceutical product has been approved for marketing, can extend the patent term for up to seven years. However, the remaining patent term including the supplementary protection certificate cannot exceed 17 years.

CONVENTION & TREATY MEMBERSHIP

France became a member of the Patent Cooperation Treaty on 25.02.1978 and the European Patent Convention on 07.10.1977. France is also a signatory of the Paris Convention (Stockholm wording), the Budapest Convention, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Patents are granted for new inventions involving an inventive step and capable of industrial application.

Applications may be made, in French, by the inventor or his successor, whether they are an individual, corporation or firm. Non residents may apply on a reciprocity basis.

Under the *International Convention*, applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. Priority may be claimed two months after the filing in France. Certified copy must be filed within 16 months of the priority date. Under the *PCT*, international applications designating France must be filed at the European Patent Office, along with all necessary documentation, within 31 months of the priority date. Under the *European Patent Convention*, French translations of European Patents must be filed at the French Patent Office within 3 months of publication in the EPO Bulletin. Applications filed first in a non-Convention country may be accorded priority on the basis of reciprocity.

Applications are examined as to form and novelty. When formalities connected with the search are completed (maximum 18 months from filing) the Patent Office will draw up a final documentary report. When filing the application, the applicant may request postponement of the final documentary report until the end of the 18 months period.

Publication of the search report and the application occur in the Official Industrial Property Bulletin after the search for prior art has been completed.

After publication of the documentary report the patent is issued and a notice is published in the Official Industrial Property Bulletin.

After publication of the application and search report, third parties have three months to submit documented observations as to novelty and patentability.

THOMSON SCIENTIFIC INPUT

Initial input is from the *BOPI Gazette*. *DWPI* includes the following documents:

A	Granted patent (until 1979)
A	Open for public inspection application (from 1969)
A1	Open for public inspection application
A2	Application for certificate of addition
A3	Application for certificate of utility
E	Certificate of Addition to a patent of invention (until 1969)
M	Special patent for medicament or certificate of addition to it (until 1979)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1963

Effective publication dates:

Unexamined:		
pre-CPI:	FARMDOC	01.02.1963
	AGDOC	02.04.1965
	PLASDOC	29.04.1966
CPI (Sections A-M):		14.11.1969
EPI/EngPI (Sections P-X):		18.01.1974
Medicament:		
pre-CPI:	FARMDOC	04.02.1963
	AGDOC	—
	PLASDOC	—

NUMERATION

French patent numbers comprise a 7-character continuous series e.g. FR2814846A1 is input in *DWPI* as FR2814846-A1.

Application numbers comprise the 2-character year followed by a 5-character serial beginning at 1 annually. Thus application number 99 02583 is input as 1999FR-0002583 and application number 00 12478 is input as 2000FR-0012478.

Prior to the changes in its patent law in 1969, the French patent office issued a separate series of medicament patents, included by Thomson Scientific initially with format FM—1234 (now FR—1234-M), the last of which was published in 1971. Also French patents of addition had a patent number from a separate series of high five figure numbers, e.g. 90,000. Furthermore the application number took the form of several continuing series of 4-, 5- and 6-digit numbers since local provincial branches of the patent office issued their own application numbers. However, the main office at which the majority of applications were made gave numbers which, by the end of the sixties when Thomson Scientific was including them, were in the high 5 digit or low 6-digit range, i.e., 90000 to 150000.

GERMANY (DD)

Former German Democratic Republic (DDR)

PATENT OFFICE DETAILS

On October 3, 1990, the patent office in the German Democratic Republic ceased accepting new patent applications and became a subsidiary of the main office in Munich, Germany. Applications that were pending after the reorganisation were handled in the same manner as before [i.e. the country code DD was still assigned], or were transferred to Munich. The Patent Office of the former German Democratic Republic has been dissolved, its functions are handled by the German Patent Office in Munich; see Germany (DE).

The official gazette of the German Patent Office was *Bekanntmachungen*

KINDS OF PROTECTION

These are exclusive patents of invention (*Ausschliessungspatente*) and economic patents (*Wirtschaftspatente*). Industrial designs are registerable.

Patents were granted for a term of 18 years, commencing from the day after filing the application or from the priority date if priority is claimed.

There was no provision for extension.

CONVENTION & TREATY MEMBERSHIP

The Former German Democratic Republic was a signatory to the Paris Convention (Stockholm wording), the Budapest Treaty and the World Intellectual Property Organisation.

FILING FOR PATENTS

Inventions were patentable. Inventions were technical solutions which were new, capable of industrial application, advanced in the art and involved an inventive step.

Applications could be made, in German and Russian, by the inventor or his legal successor. Foreigners could apply on the basis of reciprocity or an international agreement to which both the German Democratic Republic and the applicant's country adhered.

Under the *International Convention* applications claiming priority had to have been filed within 12 months of the earliest filing in a Convention country. Details of the Convention application had to have been submitted within two months of filing. A certified copy of the basic foreign application could be requested by the Patent Office.

Applications were subjected to a formal examination. However, a patent could be granted after a favourable examination protection was granted provisionally.

Applications were not published. If the patent was granted provisionally the specification would be printed and notice of grant published in the official gazette. Upon confirmation of the patent after substantive examination, notice would again be published in the official gazette.

There was no formal opposition period. After a patent is granted provisionally objections could be filed with the Patent Office.

THOMSON SCIENTIFIC INPUT

Initial input ws from the patent documents. German patents originally filed in the former Democratic Republic are now listed in the (originally West) German *Patentblatt*. *DWPI* included the following documents:

A	Economic patent
A5	Patent specification (exclusive patent) A*usschliessungspatent* (AS)
A7	Patent specification (exclusive and searched) *Ausschliessungspatent*
A8	Addition to exclusive patent
A9	Open for public inspection application *Offenlegungsschrift*
B	Economic patent
B1	Economic patent, searched and examined *Wirtschaftspatent*
B3	Exclusive patent, searched and examined *Ausschliessungspatent*
B5	Patent specification following on A7 after an objection
C	Examined granted patent *Wirtschaftspatent*
C4	Examined and searched patent (exclusive patent) *Ausschliessungspatent*

DWPI Data Elements included Online:

Data Elements	**CPI**	**EPI**	**EngPI**
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1963

Effective publication dates:

pre-CPI:	FARMDOC	01.01.1963
	AGDOC	05.04.1965
	PLASDOC	05.05.1966
CPI (Sections A-M):		20.10.1969
EPI/EngPI (Sections P-X):		05.01.1974

NUMERATION

Patent numbers are a continuous 6-digit series e.g. DD260704A5 input in *DWPI* as DD-260704-A5. Application numbers are also a continuous 6-digit series not related to the patent numbers. 'B' and 'C' documents carry the same patent and application numbers as the previously published 'A' documents.

GERMANY (DE)

PATENT OFFICE DETAILS

On 03.10.1990, the Federal Republic of Germany re-united with the German Democratic Republic. Since then the German Patent Office (as of 01.11.1990: German Patent and Trademark Office) with its headquarters in Munich became the central office for intellectual property for the whole of Germany. The registered industrial property rights of the former German Democratic Republic and the pending applications were handled under the Extension Law.

Deutsches Patent- und Markenamt
D-80297 Munich

Deutsches Patent- und Markenamt Dienstelle Jena
Goethestr. 1
D-07738 Jena

Deutsches Patent- und Markenamt
Technisches Informationszentrum Berlin
D-10958 Berlin

www.dpma.de

The official gazette of the German Patent Office is *Patentblatt* which is published weekly.

KINDS OF PROTECTIONS

These are patents of invention and patents of addition. Industrial designs and models, and utility models are registerable.

Patents of invention are granted for a term of 20 years commencing from the day *following* the date of application or priority date. Patents of addition are granted for the unexpired term of the principal patent. As of 01.01.1978, the duration of a patent was changed from 18 years to 20 years. Patents issued prior to 01.01.1977 had a term of 18 years.

An extension of up to five years is possible for pharmaceutical patents by way of Supplementary Protection Certificates (maximum of 15 years from marketing).

The German utility law came into effect on 01.01.1987 giving utility model protection of maximum term of six to eight years from the date of filing. The further act of 1990 extended the maximum term to 10 years. A utility model application may be filed claiming the filing and priority dates of an earlier (post 01.01.1987) German or European application. This utility model application may be made up to eight years after the filing date of the related patent application.

CONVENTION & TREATY MEMBERSHIP

Germany became a member of the Patent Cooperation Treaty on 24.01.1978 and the European Patent Convention on 07.10.1977. Germany is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Patents are granted for any invention that is new, involves an inventive step and has industrial application. Computer programs may constitute part of a patentable invention. Products used in the surgical, therapeutic and diagnostic methods applied to humans and animals are also patentable.

Applications may be made, in German, by the inventor or his successor. If the application is filed in a language other than German, the applicant has to submit to the German Patent and Trademark Office a German translation within a period of three months from the date of filing.

Under the *International Convention*, applications claiming priority must be filed within 12 months of the earliest filing date. By stating the country and filing date at the time of filing in Germany or within two months, priority may be claimed. A copy of the basic foreign application is also required. Under the *Patent Cooperation Treaty*, international patents designating Germany, have the effect in Germany of national applications provided that the necessary documentation is filed with the German Patent Office within 30 months of the international filing date. Under the *European Patent Convention*, a European patent has effect in Germany from the date of publication of grant.

Applications are examined as to form, inventive step, patentability and novelty. Every application is subject to a preliminary examination even if no request for formal examination is made.

The application is laid open to public inspection 18 months from the filing date, or from the earliest priority date. If the invention is found to be patent-worthy after examination, it will be accepted for grant. The patent will be published in the Patent Bulletin. However, the applicant may request the delay of publication of specification for up to 15 months from the filing or priority date.

Opposition may be filed with three months of the date of final publication.

THOMSON SCIENTIFIC INPUT

Electronic input for bibliographic data is supplied by the German Patent and Trademark Office. Input for DE utility models from front pages of documents:

A	OPI application and examined accepted specification
A1	OPI application and examined accepted specification
A8	Correction of patent application from 2004 (biblio)
A9	Correction of patent application from 2004 (text)
B	Examined accepted specification, from 1974
B3	Patent, First Publication, from 200401
B4	Patent, Second Publication, from 200401
B8	Correction of granted patent from 2004 (biblio)
B9	Correction of granted patent from 2004 (text)
C	Granted patent, from 1981 week 8138 to 199252
C1	Patent - first publication, from 199301
C2	Patent - second publication, from 199301
C5	Modified patent (from 2004)
C8	Reprint title page
C9	Reprint complete
E	Granted EP assigned DE number, EP published in English or French
G	Granted EP assigned DE number, EP published in German
T	PCT transfer to DE
T2	Translation of EP patent - published document (included from 2005)

cont'd

T5	Translation of WO application (from 2004)
T8	Reprint title page
T9	Reprint complete
U	Gebrauchsmuster (Utility Model)
U1	Gebrauchsmuster (Utility Model)
U8	Correction of utility model from 2004 (biblio)
U9	Correction of utility model from 2004 (text)

DWPI Data Elements included Online:

Data Elements	**CPI**	**EPI**	**EngPI**
Bibliographic & Abstract	B (DE-A)	B (DE-A)	B (DE-A)
	B+Eq*	B+Eq*	B+Eq*
	(DE-B/C/U)	(DE-B/C/U)	(DE-B/C/U)
Bibliographic	Eq* (DE-A/G/T)	Eq* (DE-A/G/T)	Eq* (DE-A/G/T)
Manual Code	B (DE-A/B/C/E/G/T/U)	B(DE-A/B/C/E/G/T/U)	-
Fragmentation Code	B(DE-A/B/C/E/G/T/U)	-	-
Markush Code	B(DE-A/B/C/E/G/T/U)	-	-

From 199601, abstracts for DE-C examined equivalents ceased to appear in *DWPI*.

Date of Inclusion: 1963

Effective publication dates:

		B-Status	A-Status
pre-CPI:	FARMDOC	31.01.1963	03.10.1968
	AGDOC	01.04.1965	03.10.1968
	PLASDOC	28.04.1966	03.10.1968
		A+B Status	
CPI (Sections A-M):		02.01.1970	
EPI/EngPI (Sections P-X):		07.03.1974	

NUMERATION

For applications prior to January 2004:

Between October 1968 and December 1996, German patent applications comprised 7-digit serial numbers prefixed by the letter 'P' - which indicated a patent application - and followed by a computer check digit separated from the main number by a decimal point. The first two figures of the number represent the year of application (obtained by adding 50), the remainder of the number comprising a 5-digit serial starting at 00001 on January 1 each year.

For input purposes, Thomson Scientific omits the leading 'P' and the check digit. For example, patent application numbers P3921456.9 and P4234567.3 are input by Thomson Scientific as 89DE-3921456 (or 1989DE-3921456) and 92DE-4234567 (or 1992DE-4234567) respectively.

German patent publication numbers are derived from the application numbers by omitting the 'P' and the check digit. Thus, the publication number of the document having the application number P3921456.9 is input by Thomson Scientific as DE3921456.

The publication stage follows the publication number, A1 for unexamined, C1 or C2 for granted.

From January 1995 (Thomson Scientific update 199526), German application and publication number formats changed to 1YYNNNNN.Z where 1 indicates a patent application, YY is the year, NNNNN is the serial number beginning at 1 annually and Z is a computer check digit. Thus application 19500023.1 is input in *DWPI* as publication number DE19500023-A1 (for OLS) and DE19500023-Cx (where x is 1 or 2 depending on whether there is a previously published OLS) and application number 1995DE-1000023 (the computer check digit is dropped for *DWPI* purposes) and DE10129031A1 is input as publication number DE10129031-A1 and application number 2001DE-1029031.

German applications that originate from granted European patents retain the application date of the European patent. For applications made before 1989, the format and numbering system of patents and applications is as the pre-1995 format mentioned above except that the 5-digit serial is a continuous series beginning each year at 60001. Thus, patent 3764219 originating from a granted European patent is input by Thomson Scientific as DE3764291-G. Its application number, of format P3764219.3, is input as 87DE-3764219. For applications made from 1989, the format of the application number is: PKYYNNNNN.Z where 'P' indicates a patent application, 'K' indicates the language of the European patent (5 for German and 6 for English and French), 'YY' is the year of application, NNNNN is the serial number beginning at 00001 annually and 'Z' is a computer check digit. For input purposes, Thomson Scientific modifies this number to the format: YYDE-KNNNNN. The document patent number is derived from the application number PKYYNNNNN.Z by omitting the 'P' and the check digit.

Patent numbers 58900001 and 68900001 are input by Thomson Scientific as DE58900001-G and DE68900001-E, respectively. Their application numbers which are of the format P58900001.3 and P68900001.4 are reformatted and input as 89DE-500001 (or 1989DE-500001) and 89DE-600001 (or 1989DE-600001), respectively.

Documents transferred from the PCT (WO) application to Germany retain the application date of the PCT. For applications made before 1983, the format and numbering system of patents and application is as mentioned above except that the 5-digit serial begins at the next number after the last national application for that year, but is always less than 60000.

Patent 3249005 transferred from PCT are input by Thomson Scientific as DE3249005-T. Its application which is of the format P3249005.3 would be input as 82DE-3249005 (1982DE-3249005).

For applications made from 1983, the format and numbering system of patents and applications is as above except the 5-digit serial is a continuous series beginning at 90001 each year.

Patent 4190020 transferred from PCT is input by Thomson Scientific as DE4190020-T. Its application number which is of the format P4190020.3 is input as 91DE-4190020 (or 1991DE-4190020). When the number reaches 99999, the series "jumps back" to 80001. Thus the next number after 4299999 is 42980001. From 1995 PCT transfers are numbered from 80001.

On examination and grant the patent number is retained but the document kind changes to C.

Utility model application numbers comprise a 7-digit serial prefixed by the letter 'G' (to indicate a utility model application) and followed by a computer check digit. Coverage of German utility models began in Thomson Scientific update 199626. Utility models are input by Thomson Scientific with the registration (Eintragunstag) date. Utility G9016724.3 is input by Thomson Scientific as 90DE-U16724 (or 1990DE-U16724).

From January 1995, utility model application and publication number formats changed to 2YYNNNNN.Z where 2 indicates a utility model application, YY is the year of application, NNNNN is a 5 character serial beginning at 1 annually and Z is a computer check digit. Thus utility model application DE29610385.1 is input in *DWPI* as application number 1996DE-2010385 (the check digit is dropped for input purposes) and as publication number DE29610385-U1 and DE20102243U1 is input as application 2001DE-2002243 and as publication DE20102243-U1.

For applications from January 2004 onwards:

Summary of *DWPI* Patent Number Formats for New Law German Patents, introduced from January 2004

	Publication No Format	Document Kinds*
Patent Applications	102004012345	A1
Patent Applications via PCT	112004012345	T, T5
Corrected Patent Applications	Either of 2 formats shown above	A8, A9
Utility Models	202004012345	U1
Utility Models via PCT	212004012345	U1
Corrected Utility Models	Either of 2 formats shown above	U8, U9
Granted Patents	102004012345	B3, B4
Corrected Granted Patents	102004012345	B8, B9
Modified Granted Patents	102004012345	C5
German Allocated Number for EP Granted Patents in German	502004012345	G
German Allocated Number for EP Granted Patents in English or French	602004012345	E, T2
German Allocated Number for Corrected EP Patent	Either of 2 formats shown above for G or E	T8, T9

DWPI now includes (from 200535) EP patents entering the DE national phase at two stages, when the original filing was not in the German language. The DE patent numbers with kind E correspond to the announcement in the Patentblatt of the assignment of the DE number and are associated with the publication date of the respective issue of the Patentblatt. The DE patent numbers with kind T2 are the published German language translations and have their own publication dates. The DEE and DET2 are therefore different stages in the life cycle of the same patent. For the EP patents filed and published in German language, only the DE patent numbers with the kind G corresponding to the Patentblatt announcement exist as no translation is necessary. The announcement into the official journal of the German Patent and Trademark Patent Office, the Patentblatt, marks the entry into the national phase.

The German Patent & Trademark Office introduced changes in the meaning of the kind codes as described in the following table:

Explanation	DocType – Old	DocType – New
Patent Application	A1	A1
Correction of the patent application (bibliographic change)		A8
Correction of the patent application – text (description, claims) or drawings		A9
Granted patent (without prior publication)	C1	B3
Granted patent	C2	B4
Correction of the granted patent (bibliographic change)		B8
Correction of the patent (description, claims) or drawings		B9
Modified patents	C3	C5
Correction of the modified patent (bibliographic change)		C8
Correction of the modified patent – text (description, claims) or drawings		C9
Translation of the claims European application	T1	T1
Translation of the European patent	T2	T2
Translation of the changed European patent	T3	T3
Changed correction of the European patent application	T4	T4
Translation of the international announcement (WO)	T1	T5
Changed correction of the european patent application (bibliographic change)		T8
Changed correction of the European patent application – text (description, claims) or drawings		T9
Utility Model	U1	U1
Correction of the utility model (bibliographic change)		U8
Correction of the utility model – text (description, claims) or drawings		U9

HUNGARY (HU)

PATENT OFFICE DETAILS

Garibaldi utca 2.
H-1054 Budapest

PO Box 552
H-1370 Budapest 5

www.hpo.hu

The official gazette of the Hungarian Patent Office is *Szabadalmi Közlöny és Védjegyértesitö* which is published monthly.

KINDS OF PROTECTION

These are patents of invention, and plant patents (including new breeds of animals). Industrial designs are registerable.

Patents of invention are granted for a term of 20 years commencing from the date of application. Plant patents for vines and trees last for 18 years from the date of grant. Plant patents for other plants last for 15 years from the date of grant. Even though animal breeds are covered under the rules for plant patents, they receive a patent term of 20 years from the date of application.

There is no provision for extension.

CONVENTION & TREATY MEMBERSHIP

Hungary became a member of the Patent Cooperation Treaty on 27.06.1980. Hungary is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants. Since January 1 2003, Hungary is a member of the European Patent Convention.

FILING FOR PATENTS

Patents are granted for an invention that is new, involves an inventive step and is susceptible of industrial application. A plant variety is patentable if it is distinguishable, novel, homogeneous, stable and has been given a variety denomination suitable for registration.

Applications may be made, in Hungarian, by the inventor or his legal successor. Foreigners must assign a Hungarian attorney.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. A certified copy of the earliest application, along with a translation, must be filed within three months of filing of the application in Hungary. Priority must be claimed at the time of filing. Under the *Patent Cooperation Treaty*, an international application designating Hungary must be filed with the Hungarian Patent Office within 31 months of the international priority date.

The designation of Hungary in a European Patent application (or through a PCT route) can occur at any time for filings after 2003. This means that for PCT applications with international filing dates before 2003, Hungarian rights can be obtained through the national route only, thus for obtaining a Euro-PCT route the international filing date must be from 2003 onwards.

The validation of a European patent requires filing of the Hungarian translation of the granted patent within three months from the publication of the grant of the European patent. If provisional protection is sought, the translation of the claims must be filed following the domestic publication.

Once an application has been filed, the Patent Office will examine it to ensure that all the requirements have been met. If there are any corrections to be made, the date of receipt of these corrections by the Patent Office will be deemed to be the filing date. If all requirements are met the Patent Office will carry out a formal examination. A substantive examination will be carried out on a published patent at the request of the applicant. If the application meets all the examination requirements, then a patent will be issued.

The patent application is published in the Official Gazette 18 months after the priority date. The application is laid open to the public at the time of publication in the Gazette. However, publication of the application may be postponed upon the applicant's request.

There is no provision for opposition. However, after publication, third parties may make comments which will be considered by the examiner.

THOMSON SCIENTIFIC INPUT

Initial input comes from the Hungarian Patent Gazette (*Szabadalmi Közlöny és Védjegyértesitö).* *DWPI* includes the following documents:

A	Open for public inspection application
A	Patent (new law) not published at application stage
A1	Unexamined application
A1	Publication of patent application with search report (1995 law)
A2	Publication of patent application without search report (1995 law)
B	Granted patent with search report (from 199302)
B1	Granted patent
H	Open for public inspection application (old law) (from 199223)
T	Examined application (old law) (from 199223)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B*	-	-
Bibliographic	Eq	B+Eq	B+Eq
Manual Code	B	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Abstracts provided for CPI basics from 198304. Prior to 199519 EPI basics were assigned Manual Codes if the entry was also included in CPI with an abstracts. From week 199519, all EPI basics have been assigned Manual Codes.

Date of Inclusion: 1975 (197526)

Effective publication dates:

CPI (Sections A-M):	28.05.1975
EPI/EngPI (Sections P-X):	28.05.1975

NUMERATION

For old law (pre-1996 applications), publication numbers comprised a continuous 5-character series preceded by "T" where examination was complete and a continuous 4-character series preceded by "H" where examination was deferred. Thus patent T/12345 was input as HU—12345-T (or HUT012345-T) and patent H/3742 as HU—3742-H (or HUH003742-H).

Since 1992, the application number has been of the format PYYNNNNN where P indicates a patent application, YY is the year of application and NNNNN is a 5-character serial number beginning at 1 annually. The publication number is derived from the application number. Thus P99 00890 is input in *DWPI* as application 1999HU-0000890 and publication HU9900890-Ax (where x is 1 or 2) and application P00 01872 is input as application 2000HU-0001872 and publication HU200001872-Ax (where x is 1 or 2). Granted B patents comprise a continuous 6-character publication number e.g. HU220454B1 is input in *DWPI* as HU-220454-B1.

Application numbers between 1980 and 1991 were of the format YY/NNNN where YY is the year of application and NNNN is a 4-character serial beginning at 1 annually. Thus application number 1241/81 was input as 1981HU-0001241. Some earlier Thomson Scientific records have the letters missing with zeroes in their place where the information was incomplete on the source document i.e. where Hungarian priorities were claimed abroad.

Application numbers prior to 1980 were of the format AANNNN where AA comprised two letters, usually the first 2 letters of the patentee's name and NNNN was a 4-character continuous separate series for each set of letters, e.g. PA1370 filed in 1979 was input in *DWPI* as 1979HU-PA01370.

Utility models exist but are only covered in *DWPI* when claimed as foreign priorities outside Hungary or as refilings as patents in Hungary (INID code 67). Thomson Scientific input precedes the application/priority number with a "U".

PCT transfers are numbered in the same series as the national applications and have the same filing date as the PCT application from which they are derived.

INDIA (IN)

PATENT OFFICE DETAILS

Central Government Building
101 Maharshi Karve Road
Mumbai 400 020

www.patentoffice.nic.in

The official journal of the Indian Patent Office is the *Gazette of India*, published weekly.

KINDS OF PROTECTION

These include Ordinary patents, Patents of Addition (granted for improvement or modification of the already patented invention for the unexpired term of the main patent), Convention applications and National phase.

The patent system is governed by the Patents (Amendment) Act, 2002 and Patent Rules 2003 which came into effect on 20.05.2003. A patent application in India is covered for 20 years from the date of application.

Publication is 18 months from the date of application/priority and is open to public inspection on payment of fee.

Following the Patent (Amendment) Rules, 2006, the patent application has to be published within one month after expiry of the statutory period of eighteenths months from the date of filing or priority of application, whichever is earlier or from the request for publication. The timeframe for making a request for examination has been extended from 36 to 48 months. The reply to pre-grant opposition is to be filed within 3 months from the date of notice of opposition.

CONVENTION & TREATY MEMBERSHIP

India became a member of PCT on 07.12.1998 and is also a signatory to the Paris Convention (Stockholm wording), the Budapest Treaty (17.12.2001), the World Trade Organisation and the World Intellectual Property Organisation.

FILING FOR PATENTS

India has four regional patent offices in Delhi, Kolkata (Head Office), Mumbai and Chennai. All patent activities can be carried on by all the patent offices.

Under the Patents Act, an invention means "A new product or process involving an inventive step and also capable of being made or used in the industry". For an invention to be patentable it should be technical in nature and should meet the following criteria: it should be novel, contain an inventive step, and industrially applicable.

Applications may be made by the inventor(s) and/or their assignee, or a legal representative if the inventor/assignee is deceased.

Applications must be filed in English or Hindi, with an abstract of no more than 150 words.

An international application under the *Patent Cooperation Treaty* designating India requires the applicant to file with the Indian Patent Office within 31 months of the priority date. If an application is not filed in one of the official languages, a translation is required.

Applicants must request for a patent application to be examined. This must be done within 48 months of the filing date. Where no request is made in the timeframe, the application will be treated as withdrawn and cannot be revived.

A pre-grant opposition must be filed within 6 months from the date of publication of the application or before the grant of the patent.

DWPI INPUT

Input comes from the Official Journal of the Patent Office, the name of the Gazette of India from 21 January 2005.

DWPI includes the following:

B	Complete specification accepted
I1	Application - filed in Delhi
I2	Application - filed in Kolkata
I3	Application - filed in Mumbai
I4	Application - filed in Chennai
P1	PCT application - national phase - Delhi
P2	PCT application - national phase - Kolkata
P3	PCT application - national phase - Mumbai
P4	PCT application - national phase - Chennai

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 2005

Effective publication dates:

All CPI and EPI/EngPI sections covered from first publication date of 2005.

NUMERATION

PCT transfers from the Indian Patent Office are identified in the original data by the letters "NP" or "PCT" in the application number. The entry into the national phase is notified in the Journal of India using the application number. There is no different publication number for this type of document. In *DWPI*, the PCT transfers to the national phase have kinds P1, P2, P3 and P4 for the four regional offices Delhi, Kolkata, Mumbai and Chennai respectively. The *DWPI* patent number created for PCT transfers contain the two-letter country code and a nine-digit number, i.e. CCYYYYNNNNN. The *DWPI* format for application numbers of the PCT transfers is YYYYCCXXNNNNN, where XX indicates the regional office PCT transfers DN, KN, MN, and CN.

For example, the PCT transfer published as 433/KOLNP/2003 is represented in *DWPI* as IN200300433P2 with the application number 2003INKN00433. The PCT transfer published as IN/PCT/2002/01543/MUM is represented in *DWPI* an IN200201543P3 with the application number 2002INMN01543.

For example, the granted patent 194987 with the application number 160/DEL/2002 is input into *DWPI* as IN194987 B with the corresponding application number as 2002INDE00160. The granted patent 194579 with the original application number 1671/KOL-NP/2003 is input into *DWPI* as IN194579 B with the application number 2003INKN01671.

The applications published according to the New Law, at 18 months after filing, are published under the application numbers and do not have a different publication number. The *DWPI* patent number is created from the original application number and comprises: 2 letter county code and a 9 digit number i.e. CCYYYYNNNNN. The *DWPI* kind codes for this type of documents are I1, I2, I3, I4 depending on the regional patent office where the application was filed, DEL, KOL, MUM and CHE , respectively. The *DWPI* format for the application numbers of the pre-grant application is: YYYYCC-XXNNNNN, where XX indicates the regional patent office DE, KO, MU and CH.

For example , the pre-grant application published as 1018/MUM/2002 A is input into *DWPI* as IN200201018 I3 with the application number 2002INMU01018.

PCT transfers to the Indian Patent Office are identified in the original data by the letters "NP" in the application number. The corresponding codes for the four regions become DELNP, KOLNP, MUMNP and CHENP. The entry into the national phase is notified in the Gazette of India using the application number. There is no different publication number for this type of documents. In *DWPI*, the PCT transfers to the national phase have kinds P1, P2, P3, P4 for the four regional patent offices DELNP, KOLNP, MUMNP and CHENP, respectively. The *DWPI* patent number created for the PCT transfers contains the 2 letter country code and 9 digit number, i.e. CCYYYYNNNNN. The *DWPI* format for application numbers of the PCT transfers is YYYYCC-XXNNNNN, where XX indicates the regional office PCT transfer DN, KN, MN, and CN.

For example the PCT transfer published as 2703/DELNP/2004 is represented in *DWPI* as IN200402703P1 with the application number 2004INDN02703.

REGIONAL OFFICES & DWPI CODES

New Region Name (& Code)	Old Region Name (& Code)	National Phase (& Code)
Delhi (DE)	Delhi (DE)	DELNP (DN)
Kolkata (DO)	Calcutta (CA)	KOLNP (KN)
Mumbai (MU)	Bombay (BO)	MUMNP (MN)
Chennai (CH)	Madras (MA)	CHENP (CN)

INTERNATIONAL TECHNOLOGY DISCLOSURES (TP)

PUBLISHER DETAILS

International Technology Disclosuress, Inc.
PO Box 371
Tinley Park
IL 60477
USA

DESCRIPTION

International Technology Disclosures were defensive-type publications, usually in English, serving scientific and patent communities worldwide, which ceased publication at the end of 1993. The journal was published on a monthly basis and contained abstracts describing new discoveries or inventions. The purpose of the journal was to provide companies and inventors with a vehicle that provided "freedom of use" rather than legal protection.

In effect, the application of publications barred others from obtaining patent rights on the invention described, because the effective date of publication would establish prior art. Following the publication in a journal, most countries allow up to one year to file for a patent before applicants lose their patent rights.

In some cases, companies were known to use publication to supplement the filing of a patent application; or in the event that patent rights were not pursued, but the publication of the invention was of benefit to society.

Disclosures in the journal were accredited or anonymous and were referenced by Thomson Scientific as "patent assignees", but not in the legal sense of the description.

THOMSON SCIENTIFIC INPUT

Input is directly from the contents of International Technology Disclosures. *DWPI* included the following:

A	Scientific literature disclosure

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	-	-	-
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

International Patent Classification codes for the relevant subject matter were assigned by Thomson Scientific staff.

The status letter "A" was assigned to indicate first disclosure.

All entries were basic.

Date of Inclusion: 1984 (198408)

Effective publication dates:	
CPI (Sections A-M):	25.01.1984
EPI/EngPI (Sections P-X):	25.01.1984

Last publication date included in *DWPI* (199357) is 25 November 1993, corresponding to the filing date of 20 November 1993.

NUMERATION

Thomson Scientific uses the disclosure numbers for input into the system as both patent numbers and application numbers. Disclosure numbers are 6-digit numbers containing the month and year of publication, and a 2-digit serial number. For example, journals that published during January 1992 and December 1992, each having a serial number 01 would be quoted as 19201 and 129201, respectively.

These translate into the Thomson Scientific system as follows:

Patent Number	=	TP—19201-A
		TP-129201-A
Priority Number	=	92TP—19201
		92TP-129201

International Technology Disclosures published on the 25th of every month and contained all material received by the 20th of the same month. Hence, Thomson Scientific used the 25th of the publication month as the "publication date" and the 20th of the same month as the "application date".

IRELAND (IE)

PATENT OFFICE DETAILS

Government Buildings
Hebron Road
Kilkenny

www.patentsoffice.ie

KINDS OF PROTECTION

These are patents of invention which include full term patents (20 years) and short term patents (10 years). Designs are registerable.

A patent takes effect on the date on which notice of its grant is published and has a duration of 20 years from the date of filing. Short term patents have a duration of ten years.

It is possible for the period for which a patent remains in force to be altered. This is for the purpose of giving effect to a provision of an international treaty, convention or agreement relating to the term of protection of a patent to which Ireland is or proposes to become a party.

Generally there is no provision for extension although Supplementary Protection Certificates are available.

CONVENTION & TREATY MEMBERSHIP

Ireland became a member of the Patent Cooperation Treaty on 01.08.1992 and the European Patent Convention on 01.08.1992. Ireland is also a signatory of the Paris Convention, the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Patents are granted for an invention which is new, involves an inventive step and has an industrial application.

Applications may be made, in English, by any person either jointly with another or alone. The right to a patent belongs to the inventor(s) or their successors in title.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing date in a Convention country. A certified copy of the basic application must be filed within 16 months of priority date of the Irish application. If in a language other than English, a translation must also be provided. For a European Patent designating Ireland it is treated as a full term patent. An application filed under the PCT is deemed to be an application for a European patent.

There is no substantive examination of either full or short term patents. Examination is carried out upon the request of the applicant. Patent applications must have a filing date, at least one claim and must not be deemed to be withdrawn for examination to be undertaken.

Patent applications are published after a period of 18 months beginning on the date of filing, or if priority is claimed, from the date of priority. The applicant can request the publication to be earlier. Any person may apply to the Patent Office for the revocation of a patent.

THOMSON SCIENTIFIC INPUT

Input is taken from the front page of the specification. *DWPI* includes the following:

A	Patent specification (1963-69)
B	Granted patent (from 199517) - 20 year patent
B3	Short term patent (from 199517) - 10 year patent

DWPI Data Elements included online

Data Elements	CPI	EPI	EngPI
Bibligraphic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of inclusion: 1963-1969; 1995 (199517)

Effective Publication Dates	
CPI	25.01.1995
EPI/EngPI	25.01.1995

NUMERATION

Patent publication numbers comprise a 5-character continuous serial currently in the 80000s, e.g. patent IE81172B (20 year term) is input as IE—81172-B and IE81139B3 (10 year term) is input as IE—81139-B.

The application number comprises a 4-digit year of filing followed by a serial number of up to four digits, which is made up to seven digits by Thomson Scientific. Prior to 2000, the application number comprised a 2-digit year of filing followed by a serial number of up to four digits.

Application number 99-1234 input by Thomson Scientific as 1999IE-0001234.

Prior to August 1998, the Irish Patent Office used to allocate a national series number to European patents entering force in Ireland.

ISRAEL (IL)

PATENT OFFICE DETAILS

Patents, Designs and Trademarks Office
4 Hasadna St.
Talpiot
93420 Jerusalem

http://www.patent.justice.gov.il/MojHeb/RashamHaPtentim

The official gazette of the Israeli Patent Office is *Patents and Designs Journal* which is published monthly.

KINDS OF PROTECTION

These are patents, and patents of addition. Designs are registerable.

The duration of a patent is for 20 years from the date of application.

Pharmaceutical products or medical devices patents can be extended for a period of up to five years.

CONVENTION & TREATY MEMBERSHIP

Israel became a member of the Patent Cooperation Treaty on 01.06.1996. Israel is also a signatory to the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Patents are granted if the subject is defined as being a product or a process that is new, useful, involves an inventive step and has an industrial or an agricultural application.

Application may be made, in English and Hebrew, by whomever states that he is the owner of the invention where the owner may be the inventor himself or a person deriving the title from the inventor.

Under the *International Convention* applications claiming priority must be filed within 12 months of earliest filing in a Convention country. Priority must be claimed within two months of filing of the Israeli application and must be supported by priority documents (filed within one year from the filing of the application).

The application is examined as to novelty. However, as of 02.10.1989, an applicant who has obtained a parallel patent in the USA, the UK, the EPO, Germany, Austria, Sweden, Norway, Denmark or the Netherlands may request that the Patent Office accept his Israeli application without substantive examination as to novelty, provided the claims are identical to those in the parallel patent.

Certain details are published a few months after the filing of the patent application in the official Patents and Designs Journal. No specification is printed after examination. An announcement of acceptance is published in the official journal. The bibliographic details of all applications are published in the official journal.

An opposition may be filed within three months of the date of publication.

THOMSON SCIENTIFIC INPUT

Initial input comes from the *Israeli Patents and Designs Journal*. *DWPI* includes the following:

A	Accepted application open for public inspection

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	-	-
Bibliographic	Eq	B+Eq	B+Eq
Manual Code	B	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Abstracts provided for CPI basics from 198304. Prior to 199519 EPI basics were assigned Manual Codes if the entry was also included in CPI with an abstract. From week 199519, all EPI basics have been assigned Manual Codes.

Date of Inclusion: 1975 (197515)

Effective publication dates:	
CPI (Sections A-M):	13.03.1975
EPI/EngPI (Sections P-X):	13.03.1975

NUMERATION

Application numbers comprise a continuous series of 5 or 6 characters. The publication number is derived from the application number. Thus, application 61800 filed 24.12.1980 is input in *DWPI* as application 1980IL-0061800 and publication IL—61800-A and application 134295 filed 31.01.2000 is input as application 2000IL-0134295 and as publication IL-134295-A.

PCT transfers are assigned application numbers higher than the last national application in any year and take the PCT application date.

Divisional applications are also assigned numbers higher than the final national application in any year and take the filing date of the original.

ITALY (IT)

PATENT OFFICE DETAILS

19, via Molise
00l87 Rome

The official gazette of the Italian Patent Office is *Bollettino dei brevetti per invenzione, modelli e marchi* which is published monthly.

KINDS OF PROTECTION

These are patents of invention and European patents designating Italy. Patents of addition have been abolished; utility models are patentable under a separate law. A void patent may be converted to a utility model by court order and a patent application may be converted to a utility model at the request of the patent office.

Patents of invention are granted for a period of 20 years commencing from the date of filing of the application. Although patents of addition have been abolished, those still in force on 21.08.1979 are automatically converted into independent patents for which annual fees must be paid. Utility models have a term of 10 years.

As of 19.11.1991, extensions for pharmaceutical patents are available by means of a supplementary protection certificate. According to Law No. 349/91, the extension period of a supplementary protection certificate effective from 19.11.1991 to 02.01.1993 is equal to the time elapsed between the Italian Health Authorities' grant of approval to market the product, but in any case is no longer than 18 years from the patent expiration date.

According to EEC No. 1768/92, effective from 02.01.1993, the extension period is equal to the time elapsed between the filing date of the patent application and the first grant of approval to market the product in the European Community, reduced by a period of five years. In any case, the extension period is no longer than five years from the patent expiration date.

As of 02.02.1997, extensions for patents concerning plant protection products are available by means of a supplementary protection certificate similar to that available for pharmaceutical patents.

CONVENTION & TREATY MEMBERSHIP

Italy became a member of the Patent Cooperation Treaty on 28.03.1985 and the European Patent Convention on 01.12.1978. Italy is also a signatory to the Paris Convention (Stockholm wording), the Budapest Treaty, the International Convention for the Protection of New Varieties of Plants and the Convention establishing the World Intellectual Property Organisation.

FILING FOR PATENTS

New inventions are patentable and must include an inventive step and have industrial application. New methods for using known substances or compositions, pharmaceuticals and substances for working the surgical or therapeutic treatment of humans and animals can also patented.

Applications may be made, in Italian, by the inventor or his legal successor whether an individual, corporation or firm. Designation of inventor is mandatory. Non Italian residents must name a domicile in Italy, either directly or through a Patent Agent.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. A certified copy along with a translation must be filed within six months of the date of application in Italy. Priority must be claimed on filing or within two months. Under the *European Patent Convention*, a translation of the European patent designating Italy must be filed with the Italian Patent Office within three months of publication of grant in the European Patent Bulletin. In Italy, *PCT* applications designating Italy are treated as European patents and the same formalities apply.

Patents are examined as to form, unity of invention, title and patentability. Patents are laid open to the public 18 months after the filing date, or, in the case of Convention applications, 18 months from the priority date. Applicants may request earlier publication but not earlier than 90 days after the filing date.

During the examination process, third parties may submit petitions in opposition, pointing out the existence of prior patents.

THOMSON SCIENTIFIC INPUT

No official gazette issued until several years after the patents are published. A list can be obtained, shortly after the patents are published, which gives title and filing details including IPC. *DWPI* input for unexamined granted patents from this list.

B	Unexamined granted patent

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	-	-	-
Bibliographic	B+Eq	B+Eq	B+Eq
Manual Code	B*	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Pre-CPI Section A entries had fragmentation codes assigned. Manual Codes have been assigned to all CPI and EPI basics from week 199519.

Date of Inclusion: 1966-1969 (Subjects from Section A only)

1978 (197801)

Effective publication dates:

pre-CPI:	PLASDOC	19.09.1966
CPI (Sections A-M):		30.09.1977
EPI/EngPI (Sections P-X):		30.09.1977

NUMERATION

Italian applications can be filed at around 100 different centres across Italy. Prior to 1991, these centres were assigned blocks of numbers of 4 or 5 characters in any particular year. These numbers include the letter "A" for patent applications and "B" for utility model applications. Although utility models are not covered in *DWPI* they can appear as priorities claimed on non-Italian patents. For example, application number 12345A/90 is input by Thomson Scientific as 1990IT-0012345 and utility model application 12345B/90 is input by Thomson Scientific as 1990IT-U012345.

Since 1991, the centre at which the application is filed has been indicated by a two-letter code and a serial number beginning annually at 1.

Thus, application number MI91A003394 is input by Thomson Scientific as 1991IT-MI03394 where MI indicates the town where the application was filed (in this case - Milan). Post-2000 application numbers include the full year e.g. MI2000A001370, input into *DWPI* as 2000IT-MI01370.

Utility model application TO98U000017 is input as 1998IT-UT00017. In this case the filing centre is Turin (Torino).

Italian publication numbers comprise a continuous 7-figure series currently around 1307000. IT1307000B is input in *DWPI* as IT1307000-B.

JAPAN (JP)

PATENT OFFICE DETAILS

Tokkyocho
3-4-3 Kasumigaseki
Chiyoda-ku
Tokyo 100-8915

www.jpo.go.jp

The official gazettes of the Japanese Patent Office are *Kokai Toroku Koho* (published unexamined payent and utility model and registered utility model applications) and *Tokkyo Jitsuyoshinan Koho* (Japanese patent and registered utility specifications), both are published on CD-ROM only.

KINDS OF PROTECTION

These are patents of invention only. Patents of addition were eliminated when "domestic priority" became a feature of Japanese law. (Domestic priority grants priority to a new application based on the applicant's earlier filed Japanese patent application within 12 months of grant of the patent). Designs and utility models are registerable.

There is a proposal to extend the term of the validity of utility models from six to ten years and to allow their conversion into patent applications.

Patents of invention are granted for a period of 20 years from date of filing.

Since 01.01.1988 extensions of up to five years are possible on pharmaceutical, veterinary and agrochemical patents if regulatory delay exceeds two years. Applications for extensions must be filed within three months of approval and at least six months before expiry.

CONVENTION & TREATY MEMBERSHIP

Japan became a member of the Patent Cooperation Treaty on 01.10.1978. Japan is also a signatory to the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Inventions are patentable. The Patent Office considers animals to be patentable. Computer programs can also claim protection.

Applications may be made, in Japanese, by the invention or his legal successor. Foreign applicants must designate a Japanese representative. From January 1996, the Japanese Patent Office have allowed filing in English, although patentees still have to supply a translation in Japanese within 2-3 months. The English version is the final arbiter in disputes on quality of translations affecting scope of invention.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. A certified translation of the application must be supplied within three months from the date of application in Japan. Priority must be claimed on filing. Under the *Patent Cooperation Treaty*, a copy of the international application designating Japan must be filed with the Japanese Patent Office within 30 months of the international filing or priority date. If the document is submitted within 30 months from the priority date, a period of two months is allowed for the translation of the specification.

Applications are examined as to form, novelty, patentability and utility. Applications will not be examined unless the applicant (or a third party) makes a written request within a period of seven years from the date of filing in Japan.

The application is laid open to public inspection after 18 months from the date of filing, or the earliest priority date, if priority has been claimed and is published in the Patent Gazette. Upon acceptance the complete examined specification is published in the Official Gazette.

Since 29.05.1996 Japan had a post grant opposition system with an opposition period of six months from the date of publication of the granted patent. Prior to that opposition to the grant of a patent had to be made within three months of the date of publication of the application.

As of January 1 2004, the opposition system has been consolidated and integrated into the appeal for invalidation systems.

THOMSON SCIENTIFIC INPUT

Initial input comes from the Japanese patent documents on DVD produced by the Japanese Patent Office. *DWPI* includes the following documents:

A	Unexamined application open for public inspection (Kokai)
B	Examined accepted specification (Kokoku)
B1	Examined accepted specification not previously published as unexamined
B2	Examined accepted specification (Kokoku) (from 199404)
B2	Granted patent (Toroku) (from 199626)
W	World patent application (PCT) transfer originating from abroad
X	World patent application (PCT) transfer originating from Japan
Y	World patent application (PCT) transfer to Utility Model originating from abroad
Z	World patent application (PCT) transfer to Utility Model originating from Japan

Due to the volume of Japanese documents that publish annually, Thomson Scientific initially adopted a special selection criteria for the inclusion of Japanese documents. These were criteria based on the International Patent Classification scheme.

Thomson Scientific included all chemical patents, for both Unexamined and Examined documents in the *Chemical Patents Index*. All electrical patents for unexamined documents only, were included in the *Electrical Patents Index*. From 199548, coverage for Unexamined documents (Kokai) was extended to include all technologies. From 200450 (publication date 07.07.2004) the *DWPI* coverage of JP-B was extended to include all technologies. For more information regarding Thomson Scientific coverage of Japanese patents, see Appendix 5.

DWPI now includes the inventor(s) name(s) for Japanese specifications from 1977 onwards.

DWPI Data Elements included Online:

Data Elements	**CPI**	**EPI**	**EngPI**
Bibliographic & Abstract	B(JP-A/B)	B(JP-A/B)	B(JP-A/B)
Bibliographic	B+Eq	B+Eq	-
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

All entries have Thomson Scientific title plus bibliographic data. Abstracts are included for unexamined applications and for examined CPI basics.

Date of Inclusion: 1963

Effective publication dates:

		Examined	*Unexamined*
pre-CPI:	FARMDOC	09.01.1963	-
	AGDOC	01.04.1965	-
	PLASDOC	08.04.1966	-
CPI (Sections A-M):		05.01.1970	16.07.1971
EPI/EngPI (Sections S-X):		-	05.01.1982 (IPC 'H')

NUMERATION

Prior to January 2000 all application and patent publication numbers on Japanese Patent documents had the format:

Japanese Imperial year - followed by the patent publication number, the patent application number or the utility model application number.

e.g. 63-12345

4-223476

While the Japanese year officially begins on January 1 each year, the actual calculation of the Imperial year is based on the Emperor's reign.

In the 'Showa' era which ended on January 8, 1989, the Imperial year was calculated by subtracting 25 from the Gregorian year. Thus, 1988 was Japanese Imperial year 63 in the Showa era.

In the 'Heisei' era which commenced on January 9, 1989, the Imperial year is calculated by subtracting 88 from the Western year. Thus, 1992 was Japanese Imperial year 4 in the Heisei era.

Thomson Scientific numeration for Japanese documents is as follows:

For application numbers, Thomson Scientific ignores the Imperial year prefix and uses only the serial number made up to 6 digits with zeroes when necessary.

Thus, patent application number 4-56678 is input by Thomson Scientific as 1992JP-0056678 and utility model application number 4-56683 is input by Thomson Scientific as 1992JP-U056683.

In the case of unexamined patent numbers, Thomson Scientific retains the Imperial (or Kokai) year and outputs it as part of the patent number. Thus, unexamined patent S62-12345 (where S indicates Showa) appears in *Derwent World Patents Index* products as JP62012345-A and unexamined patent number H-531 (where H indicates Heisei) appears as JP04000531-A.

In the case of examined (Kokoku) Japanese patents issuing up until 29.05.96, Thomson Scientific converted the Japanese Imperial year prefix to the Western and output the Gregorian year as part of the patent number.

Thus Examined patent number 62-12345 appears in *Derwent World Patents Index* products as JP87012345-B and examined patent number 4-543 appears as JP92000543-B.

From 29.05.96 examined granted patents were published as "Toroku" patents with continuing numbers starting at 2500001.

Thus, from that date, publication of the old pre-grant (Kokoku) ceased and was replaced by "Toroku" publication. The "Toroku" patent number series is a continuous series, so no year prefix is necessary.

From 01.01.2000 the Japanese patent office introduced a new numbering system for patent applications (A documents) based on the Western Year using YYYY in place of the Emperor year.

Unexamined patent numbers have the format PYYYY-NNNNNNA.

The following table is for converting Imperial Years to Western Years:

ERA (Emperor)	Imperial (Kokai - A)	Western Year (Kokoku B)
SHOWA (Hirohito)	1 ⇓ +25⇒ ⇓ ⇓ ⇓ 64	1926 ⇓ ⇓ ⇐25 ⇓ ⇓ 1989 (09.01.89)
HEISEI (Akihito)	01 ⇓ +88⇒ ⇓ ⇓ ⇓ 08	1989 ⇓ ⇓ ⇐88 ⇓ ⇓ 1989 (09.01.1989)

The change from the Imperial year 64 (Showa) to 01 (Heisei) affected Thomson Scientific's numeration of Kokai applications, which changed from JP64 to JP01 for applications published 8 January 1989 onwards. The serial part of the application formed part of a continuous series and **did not revert** to 000001 on 8 January. The printed applications issued by the Japanese Patent Office carried the year 64 until their changeover was completed on 11 April, 1989. The following table illustrates this:

Date Issued	Unexamined Kokai Thomson Scientific Patent Numbers	Japanese Specification
1-7 January 1989	JP64000001 to JP64003200 (no PCT transfers issued in this period)	64-1 to 64-3200
8 January-onwards	JP010003201-onwards (JP01500001 for PCT transfers)	64-3201 onwards until JPO changeover was completed on 11.04.89

PCT applications designating Japan, when published in Japanese, issue in separate but conflicting numerical series according to the origin and type of document. On input, the Japanese assigned OPI number is retained and the status letter altered, as shown for a typical 1992 number:

Type of PCT Application	Format of OPI Serial Number	Format of Thomson Scientific Issue
Originating Abroad (bulk documents)	500001	JP04500001-W
Originating in Japan	500001 (is filing number)	JP04500001-X
Originating Abroad - converted to Utility Model in Japan	500001	JP04500001-Y
Originating in Japan - converted to Utility Model	600001	JP04600001-Z

Japanese Utility model priorities appear in *Derwent World Patents Index* when they are used as the basis for a patent application in one of the other countries covered in *Derwent World Patents Index* or as internal priorities or conversions to patent applications in Japan. Numbering is similar to patent applications but on input into *DWPI* is preceded by "U". Thus utility model application 4-12345 is input as 1992JP-U012345.

KOREA, SOUTH (KR)

PATENT OFFICE DETAILS

Invention Office
Kinmaul dong No. 1
Pipha Street
Moranbong District
Pyongyang

Songyoguyok
Songyo 2dong
Pyongyang

The official gazette of the South Korean Patent Office is the *Korean Patent Abstract Journal*.

KINDS OF PROTECTION

These are patents of invention, plant patents and divisional patents. Designs, utility models and computer programs can be protected. Any application that consists of two or more inventions that cannot be covered by a single patent, may be divided into two or more patent applications. Both of these will be deemed to have been filed at the time of filing of the original patent application.

The patent is granted for a term of 20 years from the filing date of the application. The Plant Variety Industry Act extends protection to plant varieties for 20 years from the date of registration. (Fruit trees, forest trees and their root stocks have a term of 25 years).

Patent owners may apply to the examiner for an extension of the patent term. Extensions for pharmaceuticals or agrochemicals, both of which must be licensed for manufacturing, must be applied for within three months from the date of approval or registration and at least six months before the end of the patent term. Extensions are permitted only when there has been a delay of two years or more in the working of a patent, the reasons for which are not attributable to the patent owner. The extension period must not exceed five years.

CONVENTION & TREATY MEMBERSHIP

South Korea became a member of the Patent Cooperation Treaty on 10.08.1984. South Korea is also a signatory to the Paris Convention (Stockholm wording), the Budapest Treaty, and the World Intellectual Property Organisation.

FILING FOR PATENTS

Inventions are patentable and must have industrial application, an inventive step and novelty. A plant patent is granted for any asexually reproduced distinct and new variety of plant. The Plant Variety Industry Act will protect a new plant if it has distinctiveness, uniformity, novelty, stability and a permissible name; food and foodstuffs are also patentable. Under the Criteria for Examination of Animals, patents may be granted on new animals. Inventions for new animals can be protected as of 01.03.1998. Under the revised Criteria for Examination of Computer Software, computer software is recognised as a patentable subject matter, this applies to patents filed on or after 01.01.1998.

Patent applications must be for a single invention or for a group of inventions that embody a single concept. Should patents be filed for more than one invention then the applications may be divided into divisional applications. According to amendments to the Patent and Utility model Law that went into effect on 3rd March 2006, the first-to-file entitlement is no longer granted to applications that are rejected before being laid open.

Applications can be made, in Korean, by the inventor or his legal successor, an assignee or by a legal representative. Foreigners who don't have a residence or place of business in South Korea can file an application if they are a national of a country with which South Korea has made a treaty or convention arrangement. It is also mandatory for non residents to appoint a Korean patent administrator by power of attorney.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing date in a Convention country. Priority must be claimed on filing in Korea and a certified copy of the priority document must be submitted within 16 months of the earliest priority. A Korean translation of the priority document must also be submitted. As of 01.09.1990, Korea retracted its reservation to Chapter II of the PCT. As such the national phase of an international patent application will be initiated in Korea on submission of a translation of application to the Korean Patent Office within 31 months of the earliest priority date.

Examination is made upon request and within five years of the filing date or, if it is a PCT application, within five years of the international filing date. Requests for examination cannot be withdrawn. Applications are examined as to novelty, industrial application and inventive step. When a request for examination is filed along with the patent application it generally takes two to three years from the filing date for the examination to be conducted. However, the Korean Patent Office plans to reduce the time it takes to examine a patent application to less than a year.

A patent application should be laid open to public inspection after 18 months from the filing date (from the earliest priority date if priority is claimed). Where a registration has been made, the grant of the patent together with the relevant information is published in the Patent Gazette for public inspection for a period of three months from the publication date.

An early opposition period exists for application subject to early publication. The opposition procedure after the registration of the patent has been abolished from 1 October 2006. Instead, the public examination function supplements the invalidation trial of patents.

Dual application for patent and utility model covering the same invention was abolished from October 2006 and a modification application that allows a change in the type of application between patent and utility model will be introduced.

THOMSON SCIENTIFIC INPUT

DWPI includes the following:

A	Unexamined Patent application (from 199801, publication date 08/01/1997)
B	Examined patent application
B1	Examined patent application (from 199252)
B2	Examined patent application (1st publication)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq*	Eq*	Eq
Manual Code	B	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Unexamined A Publications

DWPI includes abstracts for basics from 2001.

Examined 'B' Publications

From September 2003 these examined patents have English language abstracts in *DWPI*. Abstracts were provided for CPI and EPI basics from 199304 to 199718. Prior to 199519 EPI basics were assigned Manual Codes if the entry was also included in CPI with an abstract. From week 199519, all EPI basics have been assigned Manual Codes.

Date of Inclusion: 1986 (198640)

Effective publication dates:	
CPI (Sections A-M):	30.01.1986
EPI/EngPI (Sections P-X):	30.01.1986

NUMERATION

Prior to 2000, application numbers comprised the 2-character year of filing followed by a serial number of up to 5 characters beginning at 1 annually, e.g. 86-847 input into *DWPI* as 1986KR-0000847 and 83-5072 input as 1983KR-0005072.

Utility models are not covered in *Derwent World Patents Index* but can be claimed as priorities on non-Korean patents, as internal priorities and as originals on divisional applications. In these cases Thomson Scientific input removes the leading zero and replaced it with "U".

Application numbers are currently of the format 10-YYYY-NNNNNNN, where 10 indicates an application for a patent, YYYY is the year of filing and NNNNNNN is a 7-character serial beginning at 1 annually. Application 10-2000-0012345 is input into *DWPI* as 2000KR-0012345, the leading '10' being removed for input purposes.

Utility models are currently of format 20-2000-0012345. This, when claimed as priority (internal or on a non-Korean patent) or as the original application in a division, is input as 2000KR-U012345.

PCT transfers have a separate series of Korean application numbers and also assigned a new application date in Korea, i.e. they do not take the PCT application date. The format is 10-YYYY-7NNNNNN. Thus application 10-2000-704000 is input in *DWPI* as 2000KR-0704000.

Publication numbers of unexamined applications are a separate series from the application numbers, and, prior to 1998, were of the format YY-NNNNN, e.g. 96-12345. This is input in *DWPI* as KR96013455-A. From 1998, the full year was used in the publication number. However, the full year publication number format was not adopted until year 2000 publications.

Currently, publication numbers are of the format YYYY-NNNNNNN, e.g. 2001-0077514, which is input in *DWPI* as KR2001077514-A.

Prior to September 1997, the publication number of examined patents comprised the year of publication followed by a serial number of up to 5 characters. Thus publication number 88-2124 was input as KR8802124-B. After week 199952, B1 was used as the status code. Thus 92-12345 is input in *DWPI* as KR9212345-B1.

From September 1997, examined patent publication numbers have comprised a 6-character series starting at around 1000000. Initially, these were input with status code B1. However this has recently changed to just 'B', e.g. KR244052 is input as KR-294052-B.

Up to the end of 1997 the publication numbers of unexamined PCT transfers were of the format YY-&NNNNN (YYYY-7NNNNN from 1998) where YY (YYYY) was the year of publication and YXXXXX was a serial number beginning at 700001 annually. This was a separate series from the application numbers used in PCT transfers.

Thus 97-700002 is input in *DWPI* as KR97700002-A and 1998-700005 is input as KR98700005-A. On grant, these PCT transfers were assigned a publication number in the national series of numbers.

From 1999, this separate series of publication numbers for PCT transfers was discontinued and they are now numbered in the unexamined national series. On grant, they are assigned a number in the national series.

LUXEMBOURG (LU)

PATENT OFFICE DETAILS

19-21 Boulevard Royal
L-2449 Luxembourg

www.etat.lu/EC

The official gazette of the Luxembourg Patent Office is *Recueil administratif et économique*.

KINDS OF PROTECTION

These are patents of invention.

Patents of invention are given for a term of 20 years commencing from the day following the date of application.

Pharmaceutical patents may be extended by up to five years by means of a Supplementary Protection Certificate (15 years from marketing).

CONVENTION & TREATY MEMBERSHIP

Luxembourg became a member of the Patent Cooperation Treaty on 30.04.1978 and the European Patent Convention on 07.10.1977. Luxembourg is also a signatory of the Paris Convention (Stockholm wording), and the World Intellectual Property Organisation.

FILING FOR PATENTS

As of 13.11.1978, chemical, pharmaceutical and food products became patentable in addition to their processes of manufacture.

Applications may be filed in French or German, by the inventor or his assignee. If the assignee applies, assignment is required.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. The number and filing date of the basic application must be given but a certified copy is not required. Priority may be claimed within two months of filing in Luxembourg. Under the *European Patent Convention*, a European patent confers the same rights as a national patent from the date of publication of notice of its grant. Under the *PCT*, an international application designating Luxembourg has the effect of a national application as of the international filing date.

Applications are not subject to examination as to novelty. After the completed application is received the patent is granted at the end of two months.

An extract of the granted patent is published in the appendix of Official Gazette. Although printed copies are not available, the specifications will be open for viewing by the public, and photocopies are obtainable once the patent has been granted. Upon payment of a fee, applications may be kept secret for periods of six, 12 or 18 months.

There is no provision for opposition.

THOMSON SCIENTIFIC INPUT

Initial input comes from patents published in the Official Gazette after grant of patent. Patent front page is used for bibliographic input. *DWPI* includes the following:

A	Unexamined granted patent

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	-	-
Bibliographic	B+Eq	B+Eq	B+Eq
Manual Code	B*	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Manual codes have been assigned to all CPI and EPI basics from week 199519.

Date of Inclusion: 1984 (198443)

Effective publication dates:	
CPI (Sections A-M):	September 1984
EPI/EngPI (Sections P-X):	September 1984

NUMERATION

Application numbers and patent numbers are the same and comprise a continuous series of numbers.

Patent number 85007 is input by Thomson Scientific as LU—85007-A

Application number 86147 is input by Thomson Scientific as 1984LU-0086147.

MEXICO (MX)

PATENT OFFICE DETAILS

A. Periférico Sur No. 3106
Col. Jardines del Pedregal
Mexico, D.F.C.P. 01900

www.impi.gob.mx

KINDS OF PROTECTION

These are patents of invention (including both products and processes). Designs and utility models are registerable.

Patents of invention are granted for a period of 20 years from the filing of the application. This term is not renewable

Patents for pharmaceutical or pharmochemical products or the processes for obtaining them may be extended for a period of three years. The patentee must grant a licence allowing exploitation to a legal entity, a majority of whose capital is owned by Mexican nationals.

CONVENTION & TREATY MEMBERSHIP

Mexico became a member of Patent Cooperation Treaty on 01.01.1995. Mexico is also a signatory of the Paris Convention (Stockholm wording) and the Convention Establishing the World Intellectual Property Organisation and the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Patents are granted for inventions that are new, are the result of inventive activity and have industrial application. New uses for existing inventions can be protected so long as they are not obvious to one skilled in the art. Also specifically patentable are all types of microorganisms, and biotechnological processes for obtaining, for example, pharmochemicals, medicines, herbicides and fungicides.

Applications may be made, in Spanish, by the inventor, his assignee or their respective representatives. Where several inventors have created the same invention independently of each other, the patent right is granted to the person who was first to file the application or to claim priority.

Priority will be recognised providing the application is filed in Mexico within the period provided by the applicable treaty, or within 12 months of filing in the country of origin.

The majority of patent applications are national filings but there is a small percentage of regional patent applications filed with the four national offices located in Jalisco (JL), Nuevo Leon (NL), Yucatan (YU) and Guanajuato (GT).

Once the application is filed, IMPI will undertake a formal examination which may require the applicant to clarify portions of the application and to correct omissions. Once the application is published, a substantive examination is undertaken. This will determine whether the requirements of patentability have been met.

A patent application is published as soon as possible after a period of 18 months from the filing or priority date. Once granted, the patent is published in the Official Gazette. There is no provision for opposition.

THOMSON SCIENTIFIC INPUT

DWPI includes the following:

A	Granted (Old Law)
A1	Application (18 month)
A2	Application (published earlier 18 month)
A4	Regional Filing - JL (Jalisco)
A5	Regional Filing - NL (Nuevo Leon)
A6	Regional Filing - YU (Yucatan)
A7	Regional Filing - GT (Guanajuato)
B	Granted (New Law)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Date of inclusion: 1998 (199816)

Effective publication dates	
CPI	01.01.1997
EPI/EngPI	01.01.1997

NUMERATION

Application numbers are currently of the format PA/a/YYYY/NNNNNN, where PA indicates a patent application, YYYY is the year of filing and NNNNNN is a 6-character serial beginning at 1 annually. Thus application PA/a/1993/006671 is input into *DWPI* as 1993MX-006671 and application number PA/a/2000/011402 is input as 2000MX-011402.

For regional filings, application numbers are of the format XX/a/YYYY/NNNNNN, where XX indicates the regional patent office codes JL, NL, YU and GT. Thus application JL/a/2003/000008 is input into *DWPI* as 2003MX-JL0008 and application number YU/a/2003/000003 is input as 2003MX-YU0003.

Publication numbers for Mexican "A" documents are derived from the application numbers. Thus application PA/a/2000/011402 is input as MX2000011402-A1.

Granted patent numbers comprise a separate 6 figure series, e.g. MX201772 which is input in *DWPI* as MX-201772-B.

Some applications go straight to grant without publication of the unexamined application. These are assigned a 6-character serial as in the "B" series but are "A" type publications, e.g. MX-198034-A.

Summary of DWPI Formats for Current Mexican Documents, incorporating the New Regional Filings

	Application No Format	Publication No Format	Document Kinds*
Patent Applications			
(i) National Filing	2003MX000123	MX2003000123	A1, A2
(ii) Regional Filing			
JL (Jalisco)	2003MXJL0123	MX2003000123	A4
(iii) Regional Filing			
NL (Nuevo Leon)	2003MXNL0123	MX2003000123	A5
(iv) Regional Filing			
YU (Yucatan)	2003MXYU0123	MX2003000123	A6
(v) Regional Filing			
GT (Guanajuato)	2003MXGT0123	MX2003000123	A7
Granted Patents	Any of the above formats. Majority will be format (i)	MX200123 (continuous serial no. sequence currently >200,000)	B

* For a full listing of all document kinds and descriptions, please see Appendix 3.

NETHERLANDS (NL)

PATENT OFFICE DETAILS

Octrooicentrum Nederland
Patentlaan 2, 2288 EE
P.O. Box 5820
NL-2280 HV Rijswijk

www.octrooicentrum.nl

The official gazette of the Dutch Patent Office is *Gazette de Industriele Eigendom* which is published twice monthly.

KINDS OF PROTECTION

These are patents of invention only. Patents of addition were abolished under the new law of 12.01.1977.

Under the Patents Act of 1995, the duration of a Dutch patent is 20 years from the filing date. These are for patents for which a novelty search was requested before grant. In all other cases, the duration is six years from the filing date.

Patents relating to pharmaceutical prducts for human or veterinary use or phytopharmaceutical products may be extended for a period of up to five years by means of a Supplementary Protection Certificate (maximum 15 years from marketing)

CONVENTION & TREATY MEMBERSHIP

The Netherlands became a member of the Patent Cooperation Treaty on 10.01.1979 and the European Patent Convention on 07.10.1977. The Netherlands is also a signatory to the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation (applicable to the Netherlands only) and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

New products and processes are patentable and must not be obvious to one skilled in the art and must procure some result in any field of industry. A patent may relate to one invention only.

Applications may be filed, in Dutch or English, by the inventor who is defined as the first to file an application which is laid open to the public or published for opposition purposes. Applications may also be made by the assignee, whether an individual, corporation or firm.

Under the rules in effect prior to 01.04.1995, for priority to be claimed a certified copy of the specification and drawings must be filed within 16 months from the date of earliest filing in the Convention country. A translation of the application must also be provided. Priority must be claimed at the time of filing in the Netherlands or within 12 weeks. Under the *European Patent Convention*, European patents may designate the Netherlands, but will only become valid providing a Dutch translation is filed with the Dutch Patent Office within three months of mention of grant in the EPI bulletin. Under the *Patent Cooperation Treaty*, the Netherlands can no longer be designated directly in an international application. Under the 1995 Patents Act, the Netherlands can only be designated via a European patent application in an international patent application.

Under the Patents Act of 1995, no substantive examination will be carried out. However, within 13 months of the priority date, a request for a novelty examination can be filed. The patent will be granted within four months of the novelty search report being issued, and the duration of the patent will be 20 years from the application date. If a request for a novelty search has not been filed, the duration of the patent will be six years from the filing date. A novelty search may be requested by a third party after the patent has been granted.

Under the Act in effect prior to 01.04.1995, patents can only be granted to applications which have proceeded through a number of stages. In the preliminary stage, the application is laid open to public inspection after the expiry of 18 months from the filing date, or from the earliest priority, if claimed. In the next stage the applicant may request the Patent Office to subject the application to an examination. The report on the examination is laid open to public inspection. As soon as the application is published, the entire file will be laid open to public inspection.

Under the Patents Act of 1995, there is no provision for opposition. However, for applications falling under the Patents Act in effect prior to the Act of 1995, opposition to the grant of a patent may be made within four months from the date of publication. Publication for opposition purposes can only take place if the Patent Office is prepared to grant a patent on an application.

THOMSON SCIENTIFIC INPUT

Initial input is from *Gazette de Industriele Eigendom*. *DWPI* includes the following:

A	Unexamined application
A1	New law unexamined application
B	Examined patent
C	Granted patent (old law)
C2	20 Year new law granted patent
C6	Six year new law petty patent

DWPI Data Elements included Online:

Data Elements	**CPI**	**EPI**	**EngPI**
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1963

Effective publication dates:

		Unexamined:	*Examined:*
pre-CPI:	FARMDOC	13.07.1964	15.02.1963
	AGDOC	02.04.1965	15.04.1965
	PLASDOC	02.05.1966	15.06.1966
CPI (Sections A-M):		31.01.1970	16.11.1970
EPI/EngPI (Sections P-X):		26.02.1974	16.04.1974

NUMERATION

Until March 1995, the format of the unexamined patent number, which is the same as the application number, was a 2-digit year followed by a number up to 5 digits restarting each year from one. This was adapted by Thomson Scientific for input as patent number and application number as shown: 9301240 input as patent number NL9301240-A and as application number 1993NL-0001240.

The format of the old law examined patent numbers is a continuous series of 6-digit numbers e.g. NL190216 input by Thomson Scientific as NL-190216-B.

PCT transfers are numbered in a separate series beginning at 20001 annually e.g. 9320001 input as patent number NL9320001-A and application number 93NL-020001 (or 1993NL-020001).

From 01/04/1995, application numbers comprise a 7-digit continuous series starting at 1000001. Thus, application number 1000657 is input in *DWPI* as 1995NL-1000657.

The publication number is derived from the application number e.g. application 100657 would have a publication number NL1000657-Cx, where x is 2 or 6 depending on the type of protection sought.

Since the 1995 Act, The Netherlands can only be designated via a European Patent in a PCT application.

NEW ZEALAND (NZ)

PATENT OFFICE DETAILS

IPO NZ
Level 4
330 High Street
Lower Hutt

P.O. Box 30 687
Lower Hutt

www.iponz.govt.nz

The official gazette of the New Zealand Patent Office is *New Zealand Patent Office Journal*.

KINDS OF PROTECTION

These are patents of invention and patents of addition. Design registration is available.

The GATT implementing legislation (01.01.1995) changes the patent terms from 16 to 20 years. Existing patents are covered by this change. Patents of addition are granted for the unexpired term of the original patent.

Patent extensions, previously available for a period of up to ten years on the grounds of inadequate remuneration are no longer available.

CONVENTION & TREATY MEMBERSHIP

New Zealand became a member of the Patent Cooperation Treaty on 01.12.1992. New Zealand is also a signatory of the Paris Convention (Stockholm wording, with Lisbon text articles 1-12), the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Inventions, which are any manner of new manufacture, or any new method or process applicable to the improvement of manufacture, are patentable. Although items found in nature are not considered to be patentable, applications for fragments of naturally occurring compounds such as peptides have begun to be accepted.

Applications may be made, in English and Maori, by the inventor or the assignee whether an individual, firm or corporation.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. Priority must be claimed at the time of filing in New Zealand and a certified copy of the original application must be provided within three months. As of 01.12.1992, under the *Patent Cooperation Treaty*, PCT applications which designate New Zealand can be filed.

Applications are subject to examination as to novelty. The search is extended to New Zealand patents not more than 50 years old. When a complete specification is accepted, that fact is published in the Patent Office journal. The application is then made available to the public (for opposition purposes). The applicant must specify that the patent be sealed. This request must be made within four months of publication.

Opposition to the grant of a patent may be made within three months of the date of publication of the complete specification. If applied for before the expiry of the three months, a one month extension may be obtained. “Belated opposition” may be made within 12 months from the date of sealing of the patent.

THOMSON SCIENTIFIC INPUT

Initial input comes from the *New Zealand Patent Office Journal* supplemented by the full specifications for CPI and EPI only. *DWPI* includes the following:

A	Examined patent (from 199301)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1993 (199301)

Effective publication dates:	
CPI (Sections A-M):	28.10.1992
EPI/EngPI (Sections P-X):	28.10.1992

NUMERATION

Application numbers comprise a continuous 6-character series e.g. 242135 input in *DWPI* as 1992NZ-0242135.

Publication numbers are derived from application numbers. Thus application number 242135 is input as patent number NZ-242135-A.

PCT transfers are numbered in the same series as the national applications taking the PCT filing date.

NORWAY (NO)

PATENT OFFICE DETAILS

Københavngaten 10
N-0033 Oslo

Patentstyret
Postboks 8160 Dep.
N-0033 Oslo

www.patentstyret.no

The official gazette of the Norwegian Patent Office is *Norsk tidende for det industrielle rettsvern* which is published weekly.

KINDS OF PROTECTION

These are patents of invention only. Patents of addition are no longer granted (as of 01.01.1980). However, applications for patents of addition pending on 01.01.1980 are governed by the former law, and conversion of applications pending on that date to patents of addition is still possible. Designs are protectable.

Patents of invention are granted for a period of 20 years commencing from the date of filing of the application. Patents granted between 01.01.1968 and 01.01.1980 have a 20 year duration. Patents granted prior to 01.01.1968 have a duration of 17 years.

Pharmaceutical patents may be extended by up to five years by means of Supplementary Protection Certificates (maximum 15 years from marketing). Supplementary Protection Certificates for plant protection and medicinal products became effective on 02.01.1998.

CONVENTION & TREATY MEMBERSHIP

Norway became a member of the Patent Cooperation Treaty on 01.01.1980. Norway is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Inventions are patentable. However for a patent to be granted the invention must depart from what was known before the date of filing. Also, methods for obtaining pharmaceuticals and foodstuffs are patentable.

Applications can be made, in Norwegian, by the inventor or his legal successor. Applications are examined as to novelty.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. Priority may be claimed within three months of filing in Norway. A certified copy of the priority document must be filed within 16 months of the priority date. As of February 2004, the time limit for entering the National phase under the PCT rules was extended to 31 months.

Within one week of filing, bibliographic data about the application is made available. After 18 months, from the earliest filing date, the application is announced in the Official Gazette. When laying open for public inspection, the publication date is announced in the Gazette and when granted the date of grant is announced in the Official Gazette. When the application is laid open for public inspection, a third party is entitled to file an opposition within three months.

THOMSON SCIENTIFIC INPUT

Initial input comes from the *Norwegian Patent Gazette* (*Norsk Patenttidende*). *DWPI* includes the following:

A	Unexamined application open for public inspection
B	Examined application (from 199301)
B1	Granted patent (from 199718)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	-	-	-
Bibliographic	B+Eq	B+Eq	B+Eq
Manual Code	B	B	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Date of Inclusion: 1974 (197448)

Effective publication dates:	
CPI (Sections A-M):	04.11.1974
EPI/EngPI (Sections P-X):	04.11.1974

NUMERATION

Prior to 2000, application numbers were of the format YYNNNN, where YY was the year of filing and NNNN was a 4-character serial starting at 1 annually. Thus application number 931234 is input in *DWPI* as 1993NO-0001234.

Since 2000, the format of application numbers has been YYYYNNNN where YYYY is the year of application and NNNN, the serial. Thus, application 20004409 is input in *DWPI* as 2000NO-0004409.

Publication numbers of unexamined applications are derived from the application numbers. Thus 931234 has a publication number NO9301234-A and 20004409 has a publication number of NO200004409-A.

Granted patentt numbers comprise a continuous series of 6 figures not derived from the application numbers e.g. NO-174466-B (post grant publication). Pre-grant publications commenced in Thomson Scientific update 199718 and are numbered in a continuous series starting at 300001 with status code B1.

PATENT COOPERATION TREATY (WO)

PATENT OFFICE DETAILS

International Bureau of WIPO
PO Box 18
CH-1211 Geneva 20
Switzerland

www.wipo.int

Applicants can file for patent rights directly with the national office of a signatory to the Patent Cooperation Treaty

The offical gazette of WIPO is the *PCT Gazette* which is produced weekly. Weekly publications commenced on 05.01.1995.

KINDS OF PROTECTION

The terms of WO patents are based on the statute of the designated state.

Applications may be filed in English, French, German, Japanese, Russian, Spanish (16.11.1989), Chinese (01.01.1994) and Korean (from 2000). PCT transfers to the EPO, which were filed in English, French or German are not published as EP documents.

New rules regarding the filing, publication and communication of international applications which contain disclosure of one or more nucleotide and/or amino acid sequence listings have been implemented.

Published Nucleotide and/or Amino Acid Sequence Listings Contained in Published PCT Applications in which the listings are only partly published can be obtained on request from the International Bureau or can be found at the following WIPO site: www.wipo.int/pct/en/sequences/listing.htm.

THOMSON SCIENTIFIC INPUT

Initial input is from the *PCT Gazette* which is received in electronic format. *DWPI* includes the following:

A	Open for public inspection application (from 197849)
A1	Open for public inspection application with examiner's search report (from 199220)
A2	Open for public inspection application without examiner's search report (from 199220)
A3	Open for public inspection application search report for A2 (from 199220-1998) only; citations are now available in DPCI

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1978 (197849)

Effective publication dates:	
CPI (Sections A-M):	19.10.1978
EPI/EngPI (Sections P-X):	19.10.1978

NUMERATION

Applications published up to and including 24/12/2003:

Thomson Scientific includes all published PCT applications. The patent number is currently in the format YY/NNNNN where YY is the year of publication and NNNNN is a 5-character serial beginning at 1 annually.

For example, WO88/10186 is input in *DWPI* as WO8810186-An and WO00/62583 as WO200062583-An, where n in each case is either 1 (International Search Report published) or 2 (no Internationa Search Report). Some A3 documents (International Search Report for previously A2 documents) appear in *DWPI*.

PCT application numbers are of format: PCT/XXYY/NNNNN where 'XX' is the two-letter country code representing the receiving office, 'YY' is the year of application and 'NNNNN' is the 5-digit serial number. This is reformatted by Thomson Scientific for input purposes to: YYYYWO-XXNNNNN e.g. PCT/JP00/02231 is input as 20000WO-JP02231.

Prior to 2000, PCT/JP93/00753 was input as 93WO-JP00753.

For applications that are filed directly with the International Bureau of WIPO in Geneva, the code IB has been used since 1994, for example 1999WO-IB01001.

From 04 July 2002 the PCT publication number format changed to include a 6-digit serial number. Thomson Scientific output is WO200212345A1 for WO02/012345A1 and WO2002123456A1 for WO02/123456A1 (the leading zero of the serial number is not included).

From publication date 03/01/2003 onwards, all *DWPI* PCT patent numbers contain the full 4-digit year and the full 6-digit serial number for all publication numbers, e.g. WO2003000001A1.

Applications published from 31/12/2003 onwards:

The official PCT formats are now:

WOYYYY/NNNNNN

PCT/XXYYYY/NNNNNN

For all applications filed from 01.01.2004 onwards, the serial number length of the PCT application number is increased to 6-digits in *DWPI*, e.g. PCT/US2004/000001 becomes 2004WO-US000001. (All PCT application numbers in *DWPI* earlier than 2004 remain as 2003WO-US12345 etc., even if they were published in 2004.)

Summary of WO Formats in DWPI

Year	Application No	Patent No
Up to end 1999	99WO-US12345	WO9923456
2000-2002	2000WO-US12345	WO200023456*
2003	2003WO-US12345	WO2003123456
2004 (onwards)	2004WO-US012345	WO2004123456

* WO patent numbers go up to WO2002104091 in year 2002.

PHILIPPINES (PH)

PATENT OFFICE DETAILS

IPO Building
351 Sen. Gil J. Puyat Avenue
Makati City
Philippines 3117

ipophil.gov.ph

KINDS OF PROTECTION

These are patents of invention. Designs and utility models are registrable.

Prior to the new Intellectual Property Code which entered into force in the Philippines on 01.01.1998, the term of a patent was 17 years from the date of grant. As of 01.01.1998, patents of invention are granted for a period of 20 years counting from the filing date of application.

There is no provision for extension.

CONVENTION & TREATY MEMBERSHIP

The Philippines is a signatory of the Paris Convention (Lisbon text), the Budapest Treaty and the World Intellectual Property Organisation.

FILING FOR PATENTS

The Philippines Government passed into law on 06.06.1997 the "Act Prescribing the Intellectual Property Code and Establishing the Intellectual Property Office, Providing for its Powers and Functions and Other Purposes". The new code took effect on 01.01.1998 and brings in the "first to file" rule to replace the "first to invent" situation.

In keEPIng with TRIPs the term "patentable invention" is redefined to refer to any technical solution to a problem in any field of human activity which is new, involves an inventive step and is industrially applicable. Micro organisms and non-biological and microbiological processes are also patentable.

Applications can be made, in English, by the inventor, his heirs or legal representatives.

Under the *International Convention* applications claiming priority must be filed within 12 months of earliest filing date in a Convention country. A certified copy of the basic application along with a verified translation must be provided within six months of the application being filed in the Philippines. Priority must be claimed at the time of filing.

The new code adopts the deferred examination procedure. A search report showing prior art must be provided by the applicant before a substantive examination of the application is carried out. Applications are examined as to novelty, inventiveness and utility. United States examination and allowance may be sufficient for Philippines examiners to dispense with examination, other than formal examination.

Applications are published in the official gazette 18 months after the filing or priority date.

There is no provision for opposition.

THOMSON SCIENTIFIC INPUT

DWPI includes the following:

A	Old Law Granted Patent (ended June 1999)
B	New Law Granted Patent (started October 1999)
B1	New Law Granted Patent (started October 1999)
B2	Amended New Law Granted Patent

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Date of inclusion: 1995 (199511)

Effective publication dates	
CPI	29.01.1992
EPI/EngPI	13.01.1992

NUMERATION

Old Law PH(A) patent numbers comprise a 5-digit serial number separate from the application numbe, e.g. PH-30000-A.

New Law PH(B) patent numbers published from October 1999 onwards are in the format:

1-YYYY-NNNNN, where 1= patent, YYYY= year (e.g. 2000) and NNNNN= 5-digit serial (e.g. 01234)

For example, PH 1-2000-02873 B1 is input in *DWPI* as PH-1200002873-B1.

The serial number also corresponds to the application number, which is input in *DWPI* as 2000-PH-002873.

PORTUGAL (PT)

PATENT OFFICE DETAILS

Campo das Cebolas
1114-035 Lisboa

www.inpi.pt

The official gazette of the Portuguese Patent Office is *Boletim da propriedade industrial* which is published monthly.

KINDS OF PROTECTION

These are patents of invention and patents of addition. Industrial models, industrial designs and utility models are protectable.

Patents of invention are granted for a period of 15 years commencing from the issue date of the patent. Patents of addition are granted for the unexpired term of the original patent.

As of 02.01.1998, pharmaceutical patents can be extended for a period of up to five years by way of a Supplementary Protection Certificate.

A new Industrial Property Code (Decree Law 36/2003) has become effective from 01.07.2003.

CONVENTION & TREATY MEMBERSHIP

Portugal became a member of the Patent Cooperation Treaty on 24.11.1992 and the European Patent Convention on 01.01.1992. Portugal is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the Convention Establishing the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Patents are granted for inventions which have industrial utility, new methods of manufacture, developments of any new means or processes, improvements of inventions already patented. Apparatus or systems for the manufacture of foodstuffs and pharmaceutical products and the processes for obtaining products of the chemical industry are also patentable.

Applications may be made, in Portuguese, by the inventor or his legal successors. Applications are examined as to form and novelty. Examination takes place after publication of the application.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing date in a Convention country. A certified copy of the application may be requested by the Patent Office, but the date and number of the original application must be given. As of 01.01.1992, Portugal may be designated in a European patent and a Portuguese translation must be filed at the Portuguese Patent Office within three months of publication of grant in the European Patent Bulletin. As of 24.11.1992, Portuguese citizens may file PCT applications under the *Patent Cooperation Treaty* but through a European patent only.

Publication of a notice of filing will occur in the Industrial Property Bulletin, after the application has been filed. Where priority is claimed, publication will not take place until 18 months from the priority date. Grant of a patent is announced by publication.

Opposition to the grant of a patent of invention can be made within 90 days of the date of publication in the Industrial Property Bulletin. Once the patent is granted, opposition may be lodged until publication of the notice of grant occurs.

THOMSON SCIENTIFIC INPUT

Initial input comes from the official patent office gazette (*Boletim da Propriedade Industrial*). *DWPI* includes the following:

A	Application open for public inspection
A1	Application open for public inspection (from 200238)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	-	-
Bibliographic	Eq	B+Eq	B+Eq
Manual Code	B	B*	
Fragmentation Code	-	-	
Markush Code	-	-	

Abstracts provided for CPI basics from 198308. EPI basics are assigned Manual Codes only if the entry is also included in CPI with an abstract.

Date of Inclusion: 1974 (197452)

Effective publication dates:	
CPI (Sections A-M):	04.10.1974
EPI/EngPI (Sections P-X):	04.10.1974

NUMERATION

Application numbers comprise a continuous series of numbers currently just over 100000.

Publication numbers are derived from the application numbers. Thus application number 101007 filed in 1992 is input in *DWPI* as application 1992-PT-0101007 and publication PT-101007-A.

Utility models exist but are only input in *DWPI* when claimed as priorities on non-Portuguese publications. Thus, utility model application 9636 filed 30/06/000 is input as 2000PT-U009636.

RESEARCH DISCLOSURE (RD)

PUBLISHER DETAILS

UK,EUROPE& REST OF THE WORLD

(c) Kenneth Mason Publications Ltd
The Book Barn
Westbourne
Hants.
PO10 8RS
UK

www.researchdisclosure.com

USA, CANADA & SOUTH AMERICA

Emsworth Design Inc
200 Park Avenue South
Room 1101
NY 10003
USA

DESCRIPTION

Research Disclosure is a defensive-type publication, serving the scientific and patent communities worldwide. The journal, which also formerly incorporated the "*IBM Technical Disclosure Bulletin*" is published every month as a paper journal and online database product and contains abstracts describing new discoveries or inventions. The pages of the journal are available to companies who, due to the special nature of the invention, seek a low cost alternative, or supplement, to obtaining patents and require prompt publication whilst maintaining freedom for their own use of that invention.

In effect, the act of publication bars others from obtaining patent rights on the invention described, because the effective date of publication (which is the 10th of each month) establishes prior art. Disclosures in the journal may be accredited or published anonymously in order to protect company confidentiality.

In many case companies use the publication to supplement the filing of a patent application, especially as the journal is circulated monthly to every patent office worldwide that search it on a regular basis. Over 50 years of continuous publication many companies and inventors have successfully relied on Research Disclosure's publication date in subsequent legal proceedings.

THOMSON SCIENTIFIC INPUT

Input is directly from the contents of Research Disclosures. *DWPI* includes the following:

A	Scientific literature disclosure

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI	
Bibliographic & Abstract	B	B	B	
Bibliographic	-	-	-	
Manual Code	B	B	-	
Fragmentation Code	B	-	-	(up to March 10th 2001)
Markush Code	B	-	-	(up to March 10th 2001)

All entries are basic.

The International Patent Classification codes for the relevant subject matter are assigned by Thomson Scientific staff.

The status letter "A" is assigned to indicate first disclosure.

Date of Inclusion: 1978 (197809) – 2001 (200135)

2006 (200644) onwards

Effective publication dates:

CPI (Sections A-M):	01.1978
EPI/EngPI (Sections P-X):	01.1978

NUMERATION

Thomson Scientific uses the disclosure numbers for input into the system as both patent numbers and application numbers. For example, a Research Disclosure in journal number 502 (corresponding to February 2006) with disclosure number 502001 is input as:

Patent number = RD-502001-A

Priority number = 2006-RD-502001

Padding with the extra zeros to give a consistent 6-digit format was previously necessary for the earliest publications covered.

For the original RD coverage from 1978 to 2001, the *DWPI* publication and application dates were based on the printed Research Disclosures "copy received by" and "copy published" dates, whereby material received by the 20th of each month was published by the 10th of the following month (weekends and Bank holidays excepted). Hence the *DWPI* publication dates were always the 10th of each journal publication month and the corresponding application dates were the 20th of the previous month.

For the latest RD coverage, restarted in 2006 and including data from April 2001 to date, the *DWPI* publication dates and application dates have now both been made 10th of the relevant publication month, as with the advent of electronic filing the old "copy received by" date is no longer valid.

ROMANIA (RO)

PATENT OFFICE DETAILS

5, Ion Ghica Street, Sect. 3
PO Box 52
70018 Bucharest

The official gazette of the Romanian Patent Office is the *Buletin Oficial de Proprietate Industriala*

KINDS OF PROTECTION

These are patents of invention and patents of addition.

Patents of invention are granted for a period of 20 years commencing from the date when all necessary documentation is filed. Patents of addition are limited to the patent term of the original invention but it is not less than 10 years.

There is no provision for extension.

CONVENTION & TREATY MEMBERSHIP

Romania became a member of the Patent Cooperation Treaty on 23.07.1979. Romania is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, and the World Intellectual Property Organisation.

FILING FOR PATENTS

Inventions that are new and have industrial application are patentable. New inventions of plants, hybrids and new animal breeds are patentable if they are distinct.

Applications may be made, in Romanian, by the inventor or his legal successor. The applicant must request a substantive examination on the filing date of the application or within 30 months of the filing date. A decision by the Office of Patents and Trademarks to grant a patent is published within 30 days. The specification and claims of the patent are published within three months.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing date in a Convention country. Priority must be claimed at the time of filing in Romania or within two months of the date of registration of the application. A certified copy of the application may be filed within three months. Priority documents must be in English, French, German or Russian.

Unexamined patent applications (A) will be laid open to public inspection within 18 months from the date of filing or the priority date. The complete specification of the patented inventions (B or B1) will be published within three months from the publication of the decision to grant. The complete specification of the issued patent (C or C1) will be published within three months from the issuance of the patent. (Normal procedure: A = first publication; B = second publication; C = third publication. Where the patent application is not published: B1 = first publication; C1 = second publication)

Any opposition will be considered within three months.

THOMSON SCIENTIFIC INPUT

Initial input comes from the official patent office gazette (*Buletin Oficial de Proprietate Industriala)*. *DWPI* includes the following:

A	Granted patent according to 1997 law
B	Granted patent (1991 Law) (from 199349)
B1	Granted patent (1991 Law) (from 199349)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	-	-
Bibliographic	Eq	Eq	Eq
Manual Code	B	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Abstracts provided for CPI basics from 198307. EPI basics are assigned Manual Codes only if the entry is also included in CPI with an abstract.

Date of Inclusion: 1975 (197532)

Effective publication dates:	
CPI (Sections A-M):	01.06.1975
EPI/EngPI (Sections P-X):	01.06.1975

NUMERATION

Patent numbers for the 'A' documents are a continuous series of (currently) 6-digit numbers, e.g. RO-102041-A, although they are not published in a consecutive number range. The application numbers are a separate range of 6-digit serial numbers.

The patent numbers for the 'B1' documents (1991 Law) continue on from the previous series starting with number 105544 (published 25.09.92). Newer style application numbers are in the formats:

92-0762 input by Thomson Scientific as 1992RO-0000762

92-200715 input by Thomson Scientific as 1992RO-0200715

RUSSIAN FEDERATION (RU)*

PATENT OFFICE DETAILS

30-1 Berezhkovskaya nab.
123995 Moscow

The official gazette of the Russian Federation Patent Office is *Izobreteniia (zayavki patenty)* which is published three times a month (10th, 20th and 27th).

Former State of the Soviet Union (SU)

The Russian Patent Office acting for the Russian Federation was established on 01.02.1992. The Patent Law of the Russian Federation became effective on 14.10.1992. In September 1997, the reorganisation of the existing structure of the State Patent Service took place resulting in the establishing of the Federal Institute of Industrial Property which together with the Central Body of the Agency for Patents and Trademarks assumed all the functions of the Russian Patent Office. The Russian Patent Office is one of the eight International Searching Authorities that carries out international searches for more than 20 states.

Following is a complete list of the former USSR states. All are PCT members.

INDEPENDENT STATES

Armenia	AM
Azerbaijan	AZ
Belorussia	BY
Estonia	EE
Georgia	GE
Kazakhstan	KZ
Kyrgyzstan	KG
Latvia	LV
Lithuania	LT
Moldova, Rep. of	MD
Russian Federation	RU
Tajikistan	TJ
Turkmenistan	TM
Ukraine	UA
Uzbekistan	UZ

ROSPATENT is a federal executive body in charge of execution, control, authorisation, regulation and organisation in the field of industrial property rights protection such as inventions, industrial designs, utility models, trademarks, service marks as well as in the field of legal protection of computer software, databases and topographies of integrated circuits.

KINDS OF PROTECTION

These are patents of invention and designs and utility model are also patentable.

Patents are granted for a period of 20 years beginning on the date of filing with the Patent Office. Patents in force on 01.07.1991 were extended from 15 years to 20 years. Utility models have a term of five years from the date of filing of the application.

The amendments to the Russian Patent Law, adopted in February 2003, came into force on 12.03.2003. The amendments brought the Russian Patent Law in alignment with the provisions of the TRIPs Agreement.

According to the 2003 amendments, the law allows the extension of up to five years of the term of patent protection for an invention that is a drug, pesticide or agrochemical product which is subject to special regulation.

CONVENTION & TREATY MEMBERSHIP

The Russian Federation became a member of the Patent Cooperation Treaty on 29.03.1978. The Russian Federation is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty and International Convention for the Protection of New Varieties of Plants. On 17.02.1994 the Russian Federation, along with ten other member States of the Commonwealth of Independent States, adopted an agreement establishing the Eurasian Patent Convention

FILING FOR PATENTS

Inventions that are novel, represent an inventive step and have industrial application are patentable.

Applications may be made, in Russian, by the author of the invention, his legal successor or the author's employee. Foreign applicants must designate a Russian representative who is registered with the Patent Office of the Russian Federation.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing in a Convention country. Priority documents are required.

A formal examination of the patent application is made two months from the date of filing. The applicant can request earlier examination. At the request of the applicant, or a third party, the Patent Office will undertake a substantive examination. The request for this examination must be made within three years of the filing date.

It is possible to prolong the term for the presenting of amended or missing documents on a request of a Preliminary Examination from two months up to 10 months by a proper request from a patent owner.

An applicant has the right to apply to the Patent Office for extension of the term for the filing request for Substantive Examination that is three years from the filing date up to two months.

An applicant may convert his application for an invention into an application for a utility model prior to publication of the patent application or prior to the decision of grant (which is earlier).

Patent applications for inventions and utility models created in the Russian Federation may be filed abroad not earlier than six months after the filing of the corresponding application with the Russian Patent Office.

A PCT application designating the Russian Federation will enter the national phase 31 months from the priority date.

The bibliographic data and claims of an application are published in the official gazette after formal examination on the expiration of a period of 18 months from the date of filing. After the decision to grant a patent has been taken, the Patent Office shall publish the particulars of the patent grant in the official gazette.

The applicant may, within two months from the date of receipt of the unfavourable decision of the formal examination and three months from the date of the unfavourable decision of the substantive examination lodge an appeal with the Board of Appeal of the Patent Office. A patent may be contested and revoked entirely or in part, at any time during its period of validity.

Many Eastern European countries, particularly those that were under Communist rule, made available a form of legal protection that enabled an inventor to enjoy remuneration for invention without incurring cost for maintenance or development. In exchange for this privilege the inventor was required to assign all rights to the invention to the State for the benefit of society. The State then issued an Inventor's Certificate and these were published in the Official Gazette. A new law entered into force on 01.07.1991 which abolished Inventor's Certificates.

THOMSON SCIENTIFIC INPUT

Initial input comes from the patent documents. *DWPI* includes the following:

Soviet Union	*Russian Federation*
C	Patent
C1	Patent
C2	Patent
C9	Reissued Patent

DWPI Data Elements included Online:

Data Elements	**CPI**	**EPI**	**EngPI**
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1963 (Soviet Union)
1994 (199406) (Russia)

Effective publication dates:

pre-CPI:	FARMDOC	Jan 1963
	AGDOC	Apr 1965
	PLASDOC	Jun 1966
CPI (Sections A-M):		Dec 1969
EPI/EngPI (Sections P-X)		1974

NUMERATION

Russian patent numbers comprise a continuous series of numbers starting at 2000001. The status code is C1 (no examined application published) or C2 (unexamined A-type application published).

Thus RU2180346C2 is input in *DWPI* as RU2180346-C2.

Unexamined applications are not included in *DWPI*.

Application numbers from 1992 to 1994 are in the form YYNNNNNN/CC, e.g. 92003039/15 which would be input by Thomson Scientific as 1992RU-0003039.

From 1995, the application number format changed to YY1NNNNN/CC, e.g. 97118230/04. This would be input in *DWPI* as 1997RU-0118230.

From 2000, the full year format is used in the application number, 200118277/15 being input in *DWPI* as 2000RU-0118277.

SINGAPORE (SG)

PATENT OFFICE DETAILS

51 Bras Basah Road
04.01 Plaza By The Park
Singapore 189554

www.ipos.gov.sg

The official gazettes of the Singapore Patent Office are *Patents Journal A* and *Patents Journal B*.

KINDS OF PROTECTION

These are patents of invention.

A patent takes effect on the date on which notice of its grant is published in the official gazette. It has a duration of 20 years from filing date.

There is no provision for extension.

For applications filed on or after 01.07.2004 patent term extensions are available under the new law or special conditions, e.g. delays caused by the Patent Office.

CONVENTION & TREATY MEMBERSHIP

Singapore became a member of the Patent Cooperation Treaty on 23.02.1995. Singapore is also a signatory of the Paris Convention, the Budapest Treaty and the World Intellectual Property Organisation.

FILING FOR PATENTS

Patents are granted for inventions that are new, involve an inventive step and are capable of industrial application.

Applications may be made, in English, by the inventor, his successors or assignees. Applications are first examined to determine whether they comply with all formal requirements. When the Registrar is satisfied that all the conditions for patentability have been met, and all fees have been paid, he will grant the patent.

Under the *International Convention*, applications being filed in Singapore may claim priority. A certified copy of the basic application should be filed at the time of filing of the application in Singapore. Under the *Patent Cooperation Treaty*, international applications designating Singapore must be filed at the Singapore Registry of Patents within 30 months of the international priority date (or 30 months if an international preliminary examination has been requested).

Where an application has a date of filing, the Registrar shall publish the application as filed and the date of its publication in the Journal. As soon as practicable after a patent has been granted, a notice must be published in the Journal. At the same time the Registrar will publish the specification and any other details relating to the patent. Oppositions to applications for amendment may be submitted.

Applications filed in Singapore on or after 01/07/2004 are governed by the Patents (Amendment) Act 2004 and the Patent (Amendment) Rules 2004. They will be published as soon as possible after 18 months from the filing or priority date.

Applications filed after 01.07.2004 will follow one or two examination tracks (fast or slow). Fast Track is the default role, but the slow track can be followed on payment of a fee. The slow track process defers all due dates by 18 months. The new law stipulates specific terms and conditions that apply to the Corresponding Applications in relation to the new two track system.

THOMSON SCIENTIFIC INPUT

DWPI includes the following:

A	Registrations via GB or EP designating GB (from 199513)
A1	Patent application (from 199631)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Date of inclusion: 1995 (199513)

Effective publication dates	
CPI	13.01.1995
EPI/EngPI	13.01.1995

NUMERATION

New Law patent numbers have the format of a five digit serial number. The year of filing is not included.

Patent number 75235 input by Thomson Scientific as SG—75235-A.

Application numbers consist of a two digit year of filing followed by a serial number of up to five characters.

Application number 9601234 input by Thomson Scientific as 1996SG-0001234.

Old Law patent numbers are of the format YYNNNNN where YY is the year of filing and NNNNN is a continuous serial number beginning at 1 each year. Thus patent number 9500325 is input by Thomson Scientific as SG9500325-A. This has an application number identical to the patent number, which is input by Thomson Scientific as 1995SG-0000325.

SLOVAKIA (SK)

On 01.01.1993, the Czech and Slovak Federal Republic (CSFR) split into two separate nations: The Czech Republic and Slovakia. Under the Slovakian Constitution, all rights attaching under the laws of the former Czech and Slovak Federal Republic continue to apply in Slovakia.

PATENT OFFICE DETAILS

ul. Jána Svermu 43
974 04 Banská Bystrica 4

www.upv.sk

The official gazette of the Slovakian Patent Office is *Vestnik UPV SR* which is published monthly.

KINDS OF PROTECTION

These are patents of invention and process patents. Industrial designs are registerable. Solutions relating to occupational health and safety and environmental protection may be protected under the new law. Inventors' certificates have been abolished under the new law.

Patents are granted for a period of 20 years from the filing date of the application. Patents granted before 01.01.1991 (as Czechoslovakian patents) continue in force for a duration of 15 years from the filing date of the application.

There is no provision for extension.

CONVENTION & TREATY MEMBERSHIP

Slovakia became a member of the Patent Cooperation Treaty on 01.01.1993. Slovakia is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Inventions that are new, involve an inventive step and have industrial application are patentable. Industrial production micro organisms, and the biological processes and products obtained with their help are also patentable.

Applications may be made, in Slovak, by the inventor or his legal successor.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing date in a Convention country. A certified copy of the basic application must be filed within three months of filing in Slovakia. A Slovak translation must be supplied if requested. Priority must be claimed at the time of filing.

Slovakia has a two tiered examination system. The preliminary examination verifies that all application requirements have been met. Once the Patent Office is satisfied, the application is published. The full examination looks at the novelty and inventive step of the application. If the application complies with the requirements of patentability, the patent is granted. Full examination may be initiated at the request of the applicant or a third party. Requests for full examination must be made within 36 months from the application's filing date.

Applications are published 18 months after the filing, or if priority is claimed, the priority date, of the application. Following formal examination, the grant of a patent is announced in the Official Gazette. Publication of the application accords provisional protection.

Formal opposition procedures have been abolished by the new Act. However, third parties may file observations concerning the patentability of invention, after the application is published.

THOMSON SCIENTIFIC INPUT

Initial input comes from the official gazette *Vestnik*. *DWPI* includes the following:

A3	Patent Applications according to Law 527/90
B6	Granted Applications according to Law 527/90

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	-	-
Bibliographic	B+Eq	B+Eq	B+Eq
Manual Code	B*	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Manual Codes have been assigned to all CPI and EPI basics from week 199519.

Date of Inclusion: 1994 (199417)

Effective publication dates	
CPI	07.07.1993
EPI/EngPI	07.07.1993

NUMERATION

SK application numbers started in 1993 and comprise the four digits of the year (two-digits pre-2000) of application followed by a number of up to 4 digits.

Thus application number 1234-93 is input by Thomson Scientific as 1993SK-0001234 and application number 1234-2000 as 2000SK-0001234..

SK examined accepted patent numbers are of the same format as the application numbers. Thus SK patent 1234-93 is input by Thomson Scientific as SK9301234-A3 and SK patent 1234-2000 is input by Thomson Scientific as SK200001234-Ax.

SK granted patent numbers comprise a 6-digit continuous serial the first number being that immediately following the last granted patent in the old Czechoslovakia. Thus SK granted patent 277681 is input by Thomson Scientific as SK-277681-B6.

PCT transfers are numbered in the same series, the application date being that of the PCT document.

SK-A documents published from 07.07.1993. SK-B documents published from 08.12.1993.

SOUTH AFRICA (ZA)

PATENT OFFICE DETAILS

Companies and Intellectual Property Registration Office (CIPRO)
The Dti campus (Block F - Entfutfukweni)
77 Meintjies Street,
Sunnyside
Pretoria

The official gazette of the South African Patent Office is the *Official Journal of Patents* which is published monthly.

KINDS OF PROTECTION

These are patents of invention, patents of addition and design patents.

Patents of invention are granted for a period of 20 years from the date of filing of the application. Patents of addition are valid for the unexpired term of the original patent.

CONVENTION & TREATY MEMBERSHIP

South Africa became a member of the Patent Cooperation Treaty on 16.03.1999. South Africa is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Any invention which involves an inventive step and which has application in trade or industry or agriculture may be patented.

Applications may be made, in English and Afrikaans, by the inventor, anyone acquiring the rights from the inventor, or the inventor's legal successor.

Under the *International Convention* applications claiming priority must be filed within one year of the earliest filing date in a Convention country and must be accompanied by a complete specification. A certified copy of the basic application together with a verified translation may be filed within three months of the date of application in South Africa.

There is no examination as to the patentability of the application. The only examination ensures that all formal requirements have been complied with.

When the application is accepted, the applicant will be notified by the Patent Office. Within three months of notification the applicant must advertise the acceptance in the Patent Journal. Applicants may delay acceptance by up to 18 months. On the date of publication the patent is deemed to have been sealed.

There is no provision for opposition. The patent is granted and sealed upon publication of the acceptance of the complete specification in the gazette (should be within 18 months of the acceptance date).

THOMSON SCIENTIFIC INPUT

Initial input comes from the Patent Journal followed by the complete specification. *DWPI* includes the following:

A	Unexamined patent specification
AA	Second patent specification with same number

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq*	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Abstracts provided 1987.

Date of Inclusion: 1963

Effective publication dates:

pre-CPI:	FARMDOC	23.01.1963
	AGDOC	07.04.1965
	PLASDOC	03.05.1966
CPI (Sections A-M):		Feb. 1970
EPI/EngPI (Sections P-X):		Feb. 1974

NUMERATION

Thomson Scientific includes all unexamined specifications as published in the gazette. The format of the application number is YYYY/NNNNN (YY/NNNNN prior to 2000) where YYYY is the year of application and NNNNN is the serial number commencing at 1 annually. Thus application number 2000/12345 is input by Thomson Scientific as 2000ZA-0012345 and application 88/3637 is input by Thomson Scientific as 1988ZA-0003637.

Publication numbers are derived from the application numbers e.g. 2000/12345 has publication number ZA200012345-A and application 88/3637 has a publication number ZA8803637-A.

PCT transfers to South Africa are numbered in the same series as the national applications but take the PCT application date.

SPAIN (ES)

PATENT OFFICE DETAILS

Paseo de la Castellana 75,
28020 Madrid

www.oepm.es

The official gazette of the Spanish Patent Office is *Boletin Oficial de la Propiedad Industrial* which is published twice monthly. Also *Boletin de Resumenes de Patentes* (Old Law)

KINDS OF PROTECTION

These are patents of invention, patents of addition, utility models and industrial models.

Patents of invention are granted for a period of 20 years from the filing date of the application.

Extensions are not available except in those cases where Community legislation relating to Supplementary Protection Certificates (medicinal and plant protection products) is applicable in Spain.

CONVENTION & TREATY MEMBERSHIP

Spain became a member of the Patent Cooperation Treaty on 16.11.1989 and the European Patent Convention on 01.10.1986. Spain is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Patents are granted for inventions which have industrial application, are new and which involve an inventive step.

Applications may be made, in Spanish, by the inventor or his legal successor. Firms and corporations may also apply.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing date in a Convention country. Priority must be claimed at the time of filing. A certified copy of the priority document and a Spanish translation must be filed within four months from the time of filing in Spain. A European patent application which has a filing date and a European patent are equivalent to a regular national filing and to a national patent respectively. After publication, European patent applications will only be given provisional protection in Spain equivalent to that given to the publication of patent applications filed in Spain from the date on which a translation of the claims is made available after being submitted to the patent office. Protection of a European patent is subject to the translation being submitted to the Patent Office within three months of the date of publication in the European Patent Journal.

Applications are examined to ensure they meet the formal requirements and the requirements of patentability and utility. They are not examined for novelty and inventiveness. If all requirements are met, the applicant will be informed so he can request a State of the Art Report not more than 15 months from the filing date or the priority date, if priority is claimed.

Once the formal examination has been passed, and the report has been requested, the application will be published in the Official Gazette. This will occur 18 months from the application's filing date or priority date. In the case of a secret patent, the law allows the content of the application to be kept secret for two months after the filing date.

Any third party may submit observations on the State of the Art Report within two months of the publication.

THOMSON SCIENTIFIC INPUT

Initial input comes from the Gazette (*Informacion Technologica de Patentes - pre-1989*), the official patent office gazette (*Boletin Oficial de la Propriedad* and *Industrial - II Patentes y Modelos de Utilidad*). *DWPI* includes the following:

A	Unexamined granted patent (old law)
A1	Open for public inspection application (New Law) - from 1987
A2	Certificate of addition
A6	OPI application published without search report
B	Granted patent from 1987
B1	Granted patent with search report
B2	Granted patent with previous examination
T1	Translation of the claims with drawings of European patent
T3	Translation of granted European patent

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	-	-
Bibliographic	Eq	B+Eq	B+Eq
Manual Code	B	B*	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Abstracts provided for CPI basics from 198911. From 198911 to 199519, EPI basics were assigned Manual Codes if the entry was also included in CPI with an abstract. From week 199519 all EPI basics have been assigned Manual Codes.

Date of Inclusion: 1983 (198334)

Effective publication dates:	
CPI (Sections A-M):	01.07.1983
EPI/EngPI (Sections P-X):	01.07.1983

NUMERATION

Prior to 25.06.1986 application numbers comprised a continuous series e.g. 545412 filed in 1985. This is input in *DWPI* as 1985ES-0545412.

Application numbers between 25/06/1986 and 1999 were of the format YYNNNNN, e.g. 8802068 input by Thomson Scientific as 1988ES-0002068.

From 2000, application numbers have been of format YYYYNNNNN e.g. 2000000137 which is input by Thomson Scientific as 2000ES-0000137.

Utility models are not covered in *DWPI* but can be claimed as priorities on patents filed outside Spain. Pre-25.06.1986 utility model applications comprised a continuous 6-figure series. Utility modes applications filed after 25.06.1986 are of similar format to patent applications. When the application is known to be a utility model, *DWPI* input replaces the first zero in the number with a "U".

PCT transfers have a separate series of application numbers beginning at 50001 annually, e.g. application number 9050006 is input in *DWPI* as 1990ES-0050006.

Old law publication numbers were of the format YYNNNNN, where YY was the year of publication and NNNNN was the serial beginning at 1 annually. Thus publication number 8305972 was input as ES8305972-A.

New Law publication numbers comprise a 7-character number above 2000000. These documents are input by Thomson Scientific as ES (publication number) A, T or B depending on document type (see above). For example, patent 2000306A6 is input as ES2000306-A6. "T" type patents do not carry Spanish application numbers.

SWEDEN (SE)

PATENT OFFICE DETAILS

Patent- och registreringsverket
Box 5055
S-102 42 Stockholm

www.prv.se

The official gazette of the Swedish Patent Office is *Bilaga till Svensk patenttidning* (Status A) which is published weekly and *Svensk Patenttidning* (Status B).

KINDS OF PROTECTION

These are patents of invention. Patents of addition were not granted after 31.05.1978.

Patents are granted for a period of 20 years from the filing date of the application. Patents granted on applications filed before 01.06.1966 have a duration of 17 years provided they were granted before 01.06.1978. The duration of patents obtained within 12 years prior to 01.06.1978 may be extended to 20 years upon payment of the required fee.

There is no provision for extension. However, supplementary protection is available for an active ingredient, or combination of active ingredients, in a medicinal product. Supplementary protection takes effect at the end of the term of a patent. It can be maintained for a period equal to the time elapsed between the application's filing date and the date of the first authorisation of the medicinal product, reduced by five years. The duration of supplementary protection must not exceed five years.

CONVENTION & TREATY MEMBERSHIP

Sweden became a member of the Patent Cooperation Treaty on 17.05.1978 and the European Patent Convention on 01.05.1978. Sweden is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Inventions which are new in relation to what was known before the filing of the application are patentable.

Applications may be made, in Swedish, Norwegian and Danish by the inventor or his legal successor. Inventors not resident in Sweden must appoint a local agent.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing date in a Convention country. Priority may be claimed within three months of filing in Sweden. A certified copy and any translation must be filed within 16 months of the priority date. As a member of the *European Patent Convention*, Swedish translation of the European patent must be made and filed with the Swedish Patent Office together with a fee within three months from the grant of the European patent to enjoy protection in Sweden. Under the Patent Cooperation Treaty, international patents designating Sweden have the same effect as a national application, provided the relevant documentation is filed with the Swedish Patent Office within 20 months of the international filing, or priority, date.

After formal examination, the Patent Office will examine the application as to novelty and substance. If the application is complete and meets all requirements, the Patent Office will notify the applicant that the patent can be granted.

From the day of grant the patent specification is available at the Patent Office. After a period of 18 months from the date of filing, or if priority has been claimed, from the priority date the documents will be made available to the public. The applicant can request the documents be made available earlier. The applicant is granted exclusive rights once the application has been laid open to the public.

Opposition to the grant of a patent may be made within nine months from the date on which the patent was granted.

THOMSON SCIENTIFIC INPUT

Initial input comes from the Swedish Patent Gazette (*Svensk Patenttidning*) and claims journal (*Svensk Bilaga A-H Samtliga Utdrag*) supplemented by the full specifications. *DWPI* includes the following:

A	Unexamined Application open for public inspection
B	Examined application (from 198701)
C2	Granted patent (new law)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1974 (197442)

Effective publication dates:	
CPI (Sections A-M):	23.09.1974
EPI/EngPI (Sections P-X):	23.09.1974

NUMERATION

Swedish application numbers are of format: YYNNNNN-Z where 'YY' is the year of application, 'NNNNN' is the serial number and 'Z' is a computer check digit. Thomson Scientific input removes the check digit.

Application number 9203456-3 is input in *DWPI* as 1992SE-0003456 and application number 0002696-3 is input as 2000SE-0002696.

Publication numbers of unexamined patents are derived from the application numbers. Thus application number 9203456-3 is input with publication number SE9203456-A and application number 002696-3 is input with publication number SE20000369-A.

Examined "B" document publication numbers comprise a continuous 6-character series. Examined number 463291 is input as SE-463291-B.

New law granted patents are now C2-type with numbers above 500000. Patent 503169 is input as SE503169-C2.

SWITZERLAND (CH)

PATENT OFFICE DETAILS

Einsteinstrasse 2
CH-3003 Berne

www.ige.ch

The official gazette of the Swiss Patent Office is *Schweizerisches Patent-, Muster-und Marken blatt* which is published bi-monthly.

KINDS OF PROTECTION

These are patents of invention and microbiological processes. Industrial designs and industrial models can be registered. Under the Federal Statute on the Protection of Plant varieties, plant varieties are admitted for protection.

Patents filed at the national level, and European patents designating Switzerland are granted for a period of 20 years. All patents in force on 01.01.1978 were extended to 20 years. After examination and preparation for the market, drugs and medications are protected for a period of 15 years.

There is no provision for extension. However, after the original 20 years duration, a certificate granting protection will be issued. This will compensate for the time spent on obtaining permission to market the medication. Supplementary Protection Certificates for medications are available if the first permission for marketing was granted after 01.01.1982.

CONVENTION & TREATY MEMBERSHIP

Switzerland became a member of the Patent Cooperation Treaty on 24.01.1978 and the European Patent Convention on 07.10.1977. Switzerland is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation, and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Inventions which have industrial application are patentable.

Applications may be made, in French, German, English or Italian, by the inventor or his legal successor. Persons having no residence in Switzerland must appoint a Swiss agent to represent them.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing date in a Convention country. Priority may be claimed by stating the country and filing date along with a verified translation. Under the *European Patent Convention*, European patents designating Switzerland confer the same rights as a Swiss patent from the date of publication of grant in the European Patent Bulletin. Under the Patent Cooperation Treaty, international applications designating Switzerland confer the same rights as national applications from the international filing, or priority, date providing the application is filed in French or German. If not filed in one of these languages, a translation must be filed within 20 months of the priority date.

All applications are examined as to form, patentability and utility of invention. If the application meets all the requirements the patent is granted. After successful examination the patent is registered, the grant published in the Patent List and the specification is printed. The date of publication is the date of grant.

THOMSON SCIENTIFIC INPUT

Initial input comes from the Official Patent Office gazette (*Schweizerisches Patent-, Muster- und Markenblatt)*. *DWPI* includes the following:

A	Granted unexamined patent
A3	Searched and examined application (1978-)
A5	Granted unexamined patent
A8	Correction of A5 document (biblio only)
A9	Correction of A5 document (full text)
B	Examined accepted specification (from 197837)
B5	Examined accepted specification

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1963

Effective publication dates:

pre-CPI:	FARMDOC	15.02.1963
	AGDOC	15.04.1965
	PLASDOC	15.01.1969
CPI (Sections A-M):		27.02.1970
EPI/EngPI (Sections P-X):		15.05.1974

NUMERATION

Swiss application numbers are of format: NNNNN/YYYY where 'NNNNN' is the (up to) 5-digit serial number and 'YYYY' is the year of application. This changed from the 2-digit year format during 1999.

Application number 1234/91 is input by Thomson Scientific as 1991CH-0001234 and 1234/2000 as 2000CH-0001234.

Swiss patent numbers comprise a 6-digit continuous series. Swiss patent number 686291 is input by Thomson Scientific as CH-686291-A (or B).

TAIWAN (TW)

PATENT OFFICE DETAILS

Intellectual Property Office
Ministry of Economic Affairs
3rd Floor, 185 Hsin-hai Road
Sec. 2, Taipei, Taiwan, 10637
R.O.C

www.tipo.gov.tw

The official gazette of the Taiwanese Patent Office is the *Patent Gazette of Taiwan*.

KINDS OF PROTECTION

These are patents of invention, designs and utility models.

Patents of invention published after 23.01.1994 have a term from the date of publication and do not exceed 20 years from the date of application. Patents published before 23.01.1994 have a term of 15 years from the publication date, but do not exceed 18 years from the date of filing. Patents of addition are granted for the unexpired term of the main patent.

Extensions of up to five or ten years are available in cases where loss can be shown. When a patentee wishes to place any patent relating to a pharmaceutical or agricultural chemical or a process to manufacture the same on the market, a certificate of approval from the Government is required. If it takes more than two years to obtain such a certificate an extension can be requested up to a maximum of five years. This second rule applies only to patents filed after 23.01.1994 and so first requests will only arise 20 years after 23.01.1994.

CONVENTION & TREATY MEMBERSHIP

Although Taiwan is not a member of any convention, it has adopted the 12 month priority system found in the Paris Convention and Taiwanese nationals may use mainland China's membership in the Convention to claim priority in foreign countries.

FILING FOR PATENTS

Inventions that are novel, and have a utilisation value in industry, are patentable.

Applications may be made, in Chinese, by the inventor or his heir or assignee. Foreigners may apply on a reciprocity basis. Applicants not resident in Taiwan must appoint a local agent. There is a law amendment (October 2001) pending approval by the executive for relaxing the reciprocity requirements for claiming priority. According to the 2001 law amendment, the first to file and one application principle applies. A domestic priority claim practice is introduced. Also a patent application is laid open for public access 18 months from the day following the date of patent filing. For applications filed after 26.10.2001, applications will be published within 18 months from filing. In addition, within three years from the day following the patent filing date, the applicant may file a request with the patent authority for a substantive examination. Such a request cannot be withdrawn. Where no such request has been made within the statutory period, the patent application shall be deemed as having been withdrawn.

Applications are examined as to industrial applicability, novelty and non-obviousness.

Applications may claim priority abroad only by reciprocal agreements. Australia, Germany, USA, Japan, Switzerland, France, Liechtenstein and the UK (from 24.05.2000) have either an agreement or the exchange of letters for the mutual granting of patent priority right with the Republic of China. Their nationals can claim priority for their Republic of China application based on certain priority documents.

The decision to grant a patent will be published in the Patent Gazette. Provisional protection dates from this publication. The applicant may seek the postponement of publication for up to six months.

Opposition may be filed by a third party, at the Patent Office, within three months of the date of publication.

THOMSON SCIENTIFIC INPUT

Initial input comes from the bibliographic data supplied in electronic form by the Taiwanese Patent Office supplemented by the official gazette and patent documents. *DWPI* includes the following:

A	Examined patent (old law) (from 1993 to 01.08.2004)
A	Unexamined application (New Law) - from 200553
B1	Granted patent (New Law) (from 01.08.2004)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	-	-	-
Markush Code	-	-	-

Date of Inclusion: 1993 (199324)

Effective publication dates:	
CPI (Sections A-M):	01.01.1993
EPI/EngPI (Sections P-X):	01.01.1993

NUMERATION

From 01.08.2004 the new examined patent number format consists of seven-digits: TW-XNNNNNN where "X" indicates the patent document type:

- I for Invention patent e.g. I220001
- M for Utility Model e.g. M240001
- D for Design patent e.g. D100001

This is followed by a six-digit serial number, with the new serial number range starting at 220001 as of the publication data 01.08.2004.

The first of these new publications appeared in *DWPI FirstView* and *DWPI* in early March 2005 (update 200516).

The following number standards will be used for the New Law documents in *DWPI* to avoid creating duplicates with the existing TW patent number series in *DWPI*.

TW Examined Patents	DWPI Kind Code	DWPI Patent Number Format	DWPI Application Number Format
Old Law	A	TW-NNNNNN-A	YYYYTW-nnnnnn
New Law	B1	TW-NNNNNN-B1	YYYYTW-nnnnnn

Example:

Old Law Gazette Entry	592636
DWPI Patent Number	TW592936A
DWPI Application Number	2003TW118606
New Law Gazette Entry	I220010
DWPI Patent Number	TW220010B1
DWPI Application Number	2003TW101562

New Law unexamined patent applications have been published from 01.05.2003 onwards and were first included in *DWPI* from update 200553. At present the coverage only extends only as far as August 2004 due to problems with the data supply. We are actively looking to bring the coverage as up to date as possible in the near future.

TW Examined Patents	DWPI Kind Code	DWPI Patent Number Format	DWPI Application Number Format
New Law	A	TW-YYYYNNNNNN-A	YYYYTW-nnnnnn

where YYYY= year, NNNNN= 5-digit serial number

e.g. TW-200408352-A

The application number remains separate from the patent number serial and, as shown above, comprises a 6-digit serial number input in *DWPI* as YYYY-TW-nnnnnn, e.g. 2003-TW-129334

SUMMARY

Law Status	DWPI Kind Code	DWPI Patent Number Format	DWPI Patent Number Format Example	DWPI Application Number Format
Unexamined New Law	A	TWYYYYNNNNNA	TW20424132A	YYYYTWnnnnnn
Examined Old Law	A	TWNNNNNNA	TW47287A	YYYYTWnnnnnn
Examined New	B1	TWNNNNNNB1	TW226310B1	YYYYTWnnnnnn

UNITED KINGDOM (GB)

PATENT OFFICE DETAILS

Concept House
Cardiff Road
Newport,
South Wales NP10 8QQ

www.patent.gov.uk

The official gazette of the British Patent Office is *The Official Journal (Patents)* which is published weekly.

KINDS OF PROTECTION

These are patents of invention only. Designs may be registered. Patents of addition and utility models are not provided for.

Patents are issued for a period of 20 years beginning on the date of filing of the application. Applications filed between 01.06.1967 and 31.05.1978 had a term of 16 years, extended to 20 years by endorsed "licences of right" except for pharmaceuticals.

Pharmaceutical applications may be extended for a period of up to five years by means of a Supplementary Protection Certificate (maximum 15 years from marketing).

CONVENTION & TREATY MEMBERSHIP

The United Kingdom became a member of the Patent Cooperation Treaty on 24.01.1978 and the European Patent Convention on 07.10.1977. The United Kingdom is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Inventions which are new, have industrial application and involve an inventive step can be patented.

Applications may be made, in English, by the inventor or his legal successor.

Under the *International Convention* applications claiming priority must be filed within 12 months of the earliest filing date in a Convention country. A certified copy of the priority document must be filed within 16 months of the priority date and a verified translation must be filed within 21 months. Under the *Patent Cooperation Treaty*, international applications designating the United Kingdom have the effect of national applications provided the relevant documentation is filed with the Patent Office within 31 months of the priority date. Under the *European Patent Convention*, European patent applications may be filed with the UK Patent Office. Granted European patents designating the UK confer the same rights as a national patent. However, if published in a language other than English, an English translation must be filed within three months of grant.

Applications are subject to a preliminary examination, at the request of the applicant and within 12 months of the filing date, or if priority is claimed, the priority date. Substantive examination must be requested within six months of publication.

Applications are published 18 months after filing, or if priority is claimed, after the priority date. A notice of grant will be published in the Official Gazette.

After the application is published, any interested party can make written observations regarding the patentability of the invention. There is no provision for opposition after the patent has been granted.

The Patent Act 2004 is an amendment to bring the UK patent law into line with the European Patent Convention agreed in 2000 regarding the infringement proceedings.

THOMSON SCIENTIFIC INPUT

Initial input comes from *The Official Journal (Patents)*. *DWPI* includes the following:

A	Examined granted specification (<2000000)
A	Open for public inspection application (2000000+)
B	Examined granted patent (from 198206)

DWPI Data Elements included Online:

Data Elements	CPI	EPI	EngPI
Bibliographic & Abstract	B(GB-A)	B(GB-A)	B(GB-A)
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

From Thomson Scientific update 198301 until Thomson Scientific update 199801 the main claim was used as the abstract for granted patents (GB-B).

Date of Inclusion: 1963

Effective publication dates:

pre-CPI:	FARMDOC	06.02.1963 (Exam.)
	AGDOC	07.04.1965 (Exam.)
	PLASDOC	27.04.1966 (Exam.)
CPI (Sections A-M):		07.01.1970 (Exam.)
		04.01.1979 (Unexam.)
		06.01.1982 (Granted)
EPI/EngPI (Sections P-X):		13.03.1974 (Exam.)
		04.01.1979 (Unexam.)
		06.01.1982 (Granted)

NUMERATION

Applications prior to 1979 were of type: NNNNN/YY where 'NNNNN' is the application number (beginning at 1 each year) and 'YY' is the year of application. Since 1979, applications have been of the type: YYNNNNN.Z where 'YY' and 'NNNNN' have the same meanings as above and 'Z' is a computer check digit. For input, Thomson Scientific removes the check digit.

Application number 12345/77 is input by Thomson Scientific as 1977GB-0012345.

Application number 9200046.3 is input by Thomson Scientific as 1992GB-0000046 and 0000046.3 is input as 2000GB-0000046.

Old Law (1949) patent numbers comprised a continuous series below 2000000.

Current (1977) Law unexamined patent numbers comprise a continuous series above 2000000.

Old Law examined patent 1587245 and unexamined patent 2036294 are input by Thomson Scientific as GB1587245-A and GB2036294-A, respectively.

On grant the patent number of the unexamined document is retained, but the document kind changes to 'B'.

Granted patent 2036294 is input by Thomson Scientific as GB2036294-B.

UNITED STATES OF AMERICA (US)

PATENT OFFICE DETAILS

P.O. Box 1450
Alexandria, VA 22313-1450

www.uspto.gov/

The official gazette of the US Patent Office is *Official Gazette* which is published weekly.

KINDS OF PROTECTION

These are utility patents, plant patents, design patents and reissue patents.

Prior to the Uruguay Round Agreements Act, the term of a patent was 17 years from the date of grant. The expiration date for patents in force or pending on 08.06.1995, and for patents extended or subject to extension, is the longer of:

a 17 years from grant, supplemented by the extension period

b 20 years from the relevant filing date

For an original application, the term expires 20 years from the filing date of the orginal application. For a continuing application, the term expires 20 years from the filing date of the original application. This applies whether the continuing application is a straight continuation or a combination of continuations, continuations in part or divisional applications.

An extension of up to five years may be granted where there are delays in issuing a patent because of an interference proceeding, a successful appellate review or a secrecy order. It may also be possible to extend the term by up to five years as a result of pre-marketing regulatory delays after the patent has been issued.

CONVENTION & TREATY MEMBERSHIP

The United States became a member of the Patent Cooperation Treaty on 24.01.1978. The United States is also a signatory of the Paris Convention (Stockholm wording), the Budapest Treaty, the World Intellectual Property Organisation and the International Convention for the Protection of New Varieties of Plants.

FILING FOR PATENTS

Inventions granted utility patents include new, nonobvious and useful processes, machines, manufacture, or compositions of matter. Inventions granted design patents include new, original and nonobvious design for articles of manufature. Plant patents are granted to distinct and new varieties of plants. Computer programs may also be protected by patent.

Applications may be made, in English, by the inventor, a person authorised by the inventor or the inventor's legal successor.

Applications claiming priority must be filed within 12 months of the earliest filing date in a foregin country. A certified copy of the first application must be submitted within six months of filing in the United States.

Applications are classified according to subject matter and its examination occurs in regular order of filing. A paper is considered to be filed as of it's date of receipt by the USPTO. Applications are examined as to novelty and the results of the examination are communicated to the applicant in writing. If on examination a patent is granted, a notice of allowance is sent to the applicant.

Patents are published upon grant. Reissue applications are published in the official gazette.

There is no period of opposition. However, in the event of two or more inventors claim substantially the same invention, an "interference proceeding" can be held to determine which applicant was the "first to invent" and a reexamination request can be made.

The *American Inventors Protection Act of 1999* provides for publication of applications at eighteen months from the earliest filing date. The Act applies to applications filed on or after 29.11.2000, with the first utility application to be filed in March 2001. The Act also provides, at the applicant's request for voluntary publication (for applications pending on 29.11.2000) and early publication for applications earlier than the eighteen months from the earliest filing date. The eighteen month publication is *prior art*.

Lengthy sequence listings that are not completely included in the US patent specifications are available in electronic form from the USPTO web site: http://seqdata.uspto.gov

THOMSON SCIENTIFIC INPUT

The USPTO supplies Thomson Scientific with data in electronic format. Input for re-examinations is taken from the official gazette. *DWPI* includes the following:

A	Granted patent (prior to 02.01.2001)
A1	Patent application publication - from March 2001
A2	Patent application publication (Republication) - from March 2001
A9	Patent application publication (Corrected publication) - from March 2001
B1, B2, B3, etc.	Re-examination certificate - prior to 2001 (replaced by C1, C2, etc., from 2001)
B1	Granted patent with no previously published application - from 2001
B2	Granted patent having a previously published application - from March 2001
C1, C2, C3, etc.	Reexamination certificate - from 2001
E	Reissue patent
H	Defensive specification (replaced by Statutory Invention Registration)
N	Kind code assigned by Thomson Scientific to NTIS published invention application (from 198841)

DWPI Data Elements included Online:

Data Elements	**CPI**	**EPI**	**EngPI**
Bibliographic & Abstract	B	B	B
Bibliographic	Eq	Eq	Eq
Manual Code	B	B	-
Fragmentation Code	B	-	-
Markush Code	B	-	-

Date of Inclusion: 1963

Effective publication dates:

pre-CPI:	FARMDOC	29.01.1963
	AGDOC	06.04.1965
	PLASDOC	26.04.1966
CPI (Sections A-M):		06.01.1970
EPI/EngPI (Sections P-X):		05.03.1974

NUMERATION

United States granted patent numbers comprise 7-characters followed by the status code. This status code was A for documents published prior to 2001 but was changed to B1 or B2 at the beginning of 2001 to allow gor the publication of unexamined applications which commenced 15.03.2001 and which were assigned the status code A1. Thus granted patent 5123432, published prior to 2001, is input in *DWPI* as US5123432-A and US6378082, published after 2001 is input as US6378082-B1.

Unexamined Patent Application Publications have a publication number of format YYYY/NNNNNNN, where YYYY is the year of publication and NNNNNNN is the serial beginning at 1 annually. They are given the status code A1. Thus unexamined application US2002/0012345A1 is input in *DWPI* as US20020012345-A1. On grant, the application is assigned a 7-character number and the status code B2.

Secondary publications and corrections carry a new publication number with a different kind code (A9 if correction is initiated by the USPTO, A2 for republications initiated by the applicants). All PTO family members will be linked by a single US application serial number.

US application numbers comprise a continuous series of 999999 numbers each series itself being assigned a number. Thus the series which began on 01.01.1978 was assigned 06, that which began on 01.01.1987 was assigned 07, that which began 01.01.1993 was assigned 08, 09 was assigned to the series beginning 01.01.1998 and 10 has been assigned to the series beginning 05.12.2001.

Provisional applications, introduced on 08.06.1995 are assigned a series code of 60. In *DWPI*, these application numbers are distinguished from the regular applications by following the number (prefixing by some Online hosts) with the letter "P". Thus, provisional application 60/136451 filed 28.05.1999 is input in *DWPI* as 1999US-136451P (or 1999US-P136451).

US Government-owned inventions under the jurisdiction of the National Technical Information Service (NTIS) are available for licensing to the private sector and are listed in the Government Inventions for Licensing. These are indexed by Thomson Scientific and as they are applications, have no publication number as such. Thomson Scientific therefore uses a publication number derived from the application number. Thus NTIS application 08/23543 filed in 1993 is input in *DWPI* as US8023543-A. IPCs relevant to the subject matter are assigned by Thomson Scientific staff. NTIS applications were coverd from 1983 (Update 198341). During 2001 Thomson Scientific has changed the format of these NTIS numbers on its databases to avoid clashes with forthcoming granted patent publications currently in the 6 million series. NTIS publication numbers now lead with the letter "N" and have been given the status code "N" to replace the previously assigned "A".For example NTIS number 06/142951 filed in 1983 is now recorded as USN6142951-N.

Re-examination certificates are issued as a result of a party, other than the patentee, who seeks a new examination of the patent's validity. If granted, these retain the original patent number, however, status letter "B1, B2", and from 2001, Cx (where x is 1 or 2), is used to differentiate it from the "A" status patent . Thomson Scientific follows this pattern.

An inventor can request, due to a defect or error in the patent specification, that the patent be reissued. The re-issued patent receives the current numerical sequence as its publication number, is effective beginning from the unexpired part of the term of the original patent and expires on the expiry date of the original patent. Re-issue patent 34692 is input by Thomson Scientific as US—34692-E (USRE36492-E on some databases).

Statutory Invention Registrations (SIRs) have their own continuous series of patent numbers currently between 1000 and 2000. SIR with patent number H1263 is input by Thomson Scientific as US—1263-H (or USH001263H on some databases). The US Commissioner of Patents at the request of a patentee can publish the SIR. This document is not examined, and is for the establishment of prior art over another applicant. An abstract is published in the Official Gazette and the contents are available from the USPTO. The applicant irrevocably waives the right to receive a US patent. Thomson Scientific has covered these since 1980.

Prior to 1980, a system of Defensive Publications existed. These were numbered according to the volume of the Official Gazette in which they appeared. Thus, the first Defensive Publication of Volume 896 of the Official Gazette was numbered T896001, the second T896002, and so on. Thomson Scientific input US T896001 as US806001-H.

In 1975 and 1976, a short program called the Trial Voluntary Protest Program (TVPP) was initiated comprising patents which had been examined but not granted. There were three issues of these documents, the publication numbers of which comprised the application number preceded by a 'B', e.g. B337823 published 23.03.1976. These were covered in *Derwent World Patents Index* and appear online with status type 'A' and with the 'B' absent. Thus B337823 appears online as US-337823-A.

4 Putting It Together

4.1 Introduction

The Thomson Scientific portfolio of patents products and services available worldwide takes the pain out of obtaining the valuable information contained in patents. Each week Thomson Scientific processes more than 35,000 patent documents from 40 of the world's more important patent issuing authorities and one literature source. Thomson Scientific analyzes, classifies, indexes, abstracts and collates information from these sources enabling you quickly and conveniently to access our value-added information. As a result of the intellectual effort expended by Thomson Scientific technical staff, you can easily create your own search criteria and obtain results uniquely tailored to your requirements. We provide:

- Comprehensive coverage of all technologies.
- Technical experts who analyze the main points of the invention.
- Titles of new inventions written in English that, regardless of the language of the patent, are more informative than the original title on the specification.
- Abstracts written in English, regardless of the language of the patent, that provide a detailed description of the invention, as well as its use and advantage.
- Easy-to-understand classification and indexing system that is industry-based for ease of use.
- Special indexing for precise and complete retrieval, applied to patents disclosing chemical structures in the pharmaceutical, agrochemical, polymer and plastics, and general chemical industries.
- Grouping of related patents into a patent family record to eliminate redundant analysis of the same invention.
- Unique patentee codes assigned to over 21,000 organisations worldwide that patent frequently.
- Complete online retrieval of Thomson Scientific value-added information including patent images - the accuracy of which is facilitated by the Thomson Scientific classification and indexing system.

The information that Thomson Scientific provides will keep you and your company ahead of the competition.

4.2 The Thomson Scientific System: An Overview of How Thomson Scientific Produces Patents Products

At the core of the Thomson Scientific system for producing patents products are internal files which store all data for all records we process . The two most important tasks of the Thomson Scientific system are:

a The creation of the patent family by identifying the basics and equivalents; this process includes the validation, normalization and correction of bibliographic data.

b The creation of the other elements of value-added data to be used for the online services and printed publications.

Thomson Scientific technical specialists identify the patentees, IPCs, patent numbers (including the country and status codes), local filing dates and priority details (priority application country, number, inventors and publication date) from the source documents.

The priority and filing information is searched against our internal file. Quite simply, if the priority data searched from any newly arrived document does not match the priority data of any previously processed document, then the new document is considered **basic** and is assigned a unique accession number. If additional documents are received that match priority data already contained in our internal file, then we considers them **equivalent**. This invention is now considered to have at least two specifications as part of its **patent family**. A common misunderstanding of the Thomson Scientific system is to assume that the basic document is the first to publish. This need not be so. The designation **basic** means that it is the first member of a patent family that Thomson Scientific *has processed*.

Next, there is a manual check of the remaining documents, which comprise a mix of true basics, i.e. those for which no earlier counterpart has been processed by Thomson Scientific, and apparent basics which have been filed out of priority convention. The manual check sorts out the non-convention equivalents using the inventor's name as the primary search key, but taking into account the specific subject matter of the invention, against an extensive file of non-convention families. This identification of non-convention equivalents is a particularly strong aspect of the work that we do; about 5% of the documents identified by computer as basics are, in this manner, identified as equivalents. Overall, about 55% of the weekly input is identified as equivalents.

The basics/equivalent data are then re-input to the master file, and the files updated with information on the newly published non-convention equivalents. At this time the equivalents are available for the next Thomson Scientific update to be sent to the online hosts and for creating products.

The second task is writing the Thomson Scientific titles and abstracts, and assigning the detailed classification and Manual Codes for chemical and electrical/engineering technologies. This work is achieved by technical experts in the fields of chemistry and engineering many of whom have good working knowledge of more than one language. An abstractor prepares both the alerting abstracts (shorter, around 120 words) and the documentation abstracts (longer, between 250-500 words). Abstractors recommend which graphics (diagrams) are selected from the source documents to be included in the abstracts and produce custom drawings of structural chemical formulae. Classification and Manual Codes are applied to reflect the novelty and application of the invention. For more on alerting and documentation abstracts, see Section 4.5 and for more information on classification and Manual Codes see Section 4.7.

The final task is indexing chemical structures. Chemical structures are indexed for inventions from the following technologies: plastics and polymers, pharmaceuticals, agrochemicals, and general chemical structures. The indexers work from the complete specifications and Thomson Scientific documentation abstracts. This group also prepares Markush chemical indexing and sends compounds for registering in *Chemistry Resource*.

4.3 More on Basics and Equivalents

It is important to understand the significance of the Thomson Scientific term 'basic'. It does not relate to the first filing with an issuing authority (although it may be if the first filing is also the first to be published). For example specifications which are first filed in a slow-publishing country and which are subsequently filed in faster-publishing countries, will therefore normally appear with the fast-publishing country as the 'basic', and later as an equivalent.

Once identified, a basic document is assigned a Thomson Scientific accession number of the format: YYYY-NNNNNN e.g. 2000-123456; where the first four numbers represent the year. Accession numbers in earlier years had different formats. See Section 4.6 for more details. This accession number is also called the primary accession number (PAN), to distinguish it from the secondary accession number (SAN), applied for microfilm retrieval purposes.

Non-Convention Filings

Most of the specifications received are convention filings. They are said to be equivalent if all convention (or priority) dates, countries, and numbers of the specifications match those of a document already on file. Computer checks are made on the details (patentees, classification etc.) to confirm this. [Before update week 199216, only the latest convention (or priority) year, country, and number of the specification needed to match a document already on file in order for it to be considered equivalent.]

Sometimes a patent document will not claim a priority because, having been filed too late (i.e. more than a year after the original filing), it cannot. This document is referred to as a non-convention filing and would appear to be basic.

In order to identify these, and ensure that they are related to the relevant original filings, Thomson Scientific looks through the new entries for those with a patent assignee who is not a national of the country issuing the patent, and which do not claim convention priorities. For each of these, various manual and online searches are performed in order to find a corresponding patent document, if one exists. In this way, Thomson Scientfic is the only information provider who identifies and captures non-convention equivalents.

Divisions, Continuations (and-in-part), and Multiple Priorities

If a patent application contains more than one invention the Patent Office notifies the applicant who can decide to file a division or divisional patent application. The divisional application claims a different invention to the one claimed in the original patent application but benefits from the filing date of the original application as its priority date. A patent application can be followed by several divisions.

In the opposite process, a number of applications from one country may be combined into a single patent in another country. Japanese applications filed abroad are often combined in this way. Since all the original priorities will be claimed, this gives rise to patents with multiple priorities when combined.

Continuation and continuation-in-part applications occur mainly under US patent law. The continuation application is subsequent to a pending application, whose filing date is claimed as priority . Although the continuation does not contain new material its claims are modified, usually following relevant communication from the Patent Office.

The continuation-in-part applications contain additional new material not disclosed in the original patent and claims the filing date of the original patent application as priority.

4.4 The Thomson Scientific Title

Titles of original patent documents are of considerable importance e.g. to those who wish to scan an Official Gazette for developments in their own particular areas of interest. However, in practice, the title appearing on a specification is often uninformative and unsuitable as a means for technical intelligence. This may be because, in some instances, the applicant does not want to do any more than is absolutely necessary to help competitors learn of the information which has had to be disclosed in order to obtain protection.

Therefore, Thomson Scientific replaces the original author title with a comprehensive **English language title** for the basic abstract. The Thomson Scientific title is designed to provide key information about the invention. The title also serves as a high-level summary of the abstract content to enable users to make a judgement as to the relevance of the complete record to their search. Both the content and style of the title ensures that long lists of titles are easy to scan.

All words in the title, together with a few additionally applied terms, are computer checked against a standard thesaurus of Thomson Scientific Title Terms.

The Thomson Scientific title includes the SCOPE, USE and NOVELTY of the invention.

The Scope is defined as the subject of what we have identified as the 'main' independent claim. The Use is defined as the specific application of the invention. The Novelty is defined as what the inventor alleges distinguishes the current invention from existing technology in the field and has led to the improvements that the invention achieves.

The following examples of Thomson Scientific title include all the information necessary to make them easily understood:

> Breath test for assessing hepatic mitochondrial function in diagnosis of liver disorders, comprises administering carbon-labeled methionine metabolite and measuring labeled carbon in breath
>
> Portable radio receiver with three orthogonal antennas, for remote vehicle unlocking, combines phase-shifted outputs from two antennas to feed RF amplifier with third aerial feeding separate amplifier, and selects optimum signal path
>
> Thin film transistor electrophoretic display has substrate layer of pixel electrodes, fluid suspended electrophoretic rotating balls and organic based FETs solvent printed on second substrate and protected by polymeric layer
>
> Stabilization of pharmaceutical, particularly ophthalmic, compositions against decomposition by heat, light and/or oxygen, by contacting with a polymeric material which is insoluble in the composition and comprises an antioxidant

Hydrocyanation of diolefins and olefins involves reaction with hydrogen cyanide in the presence of a catalyst precursor comprising zero-valent nickel and bidentate phosphorus amide ligand(s)

Utility power line cable selector system, for use by lineman, has low power pulse generator feeding pulses to de-energized cable for remote identification by portable receiver with signal pick up clamp and filtered detector unit

New basal endosperm transfer cell layer (BETL)-specific nucleic acid for producing transgenic plants with e.g. increased disease resistance and for identifying modulators useful as growth regulators and herbicides

Prior to 1999, the Thomson Scientific title was written in two parts separated by a hyphen. The first part of this two-part title contains the invention and its applications; the second part contains a description of the novelty of the invention. For example:

Oil sealed pump for gas circuit of gas laser – pumps gas through catalytic converter and oil filter associated with pump to remove oil from gas flow.

In order to highlight the value of the Thomson Derwent titles, the following compares some examples with the original title of the patent specification.

Table 8 Comparision of the Thomson Scientific Title with the official title taken from the patent specification

Author Title:	Phenol derivatives for treating multiple sclerosis
Thomson Scientific Title:	Use of 4-aminoalkyl-phenol derivatives, 4-hydroxybenzamide derivatives and (4-hydroxy-phenyl)-alkanamide derivatives for treatment of multiple sclerosis
Author Title:	A method for conditioning organic pigments.
Thomson Scientific Title:	Pigmentation composition for macromolecular substances, coatings and inks contains an organic pigment conditioned with a surfactant
Author Title:	Flexible connecting pipe for fire extinguishing equipment
Thomson Scientific Title:	Connection pipe for sprinkler fire extinguishers includes a connection adapter which is reinforced by braided metal
Author Title:	Autonomous local vertical determination apparatus and methods for a ballistic body
Thomson Scientific Title:	Navigation system for gun fired artillery shells includes an on-board processor to evaluate positioning of roll rate gyro, pitch rate gyro and yaw rate gyro

4.5 The Thomson Scientific Abstract

Thomson Scientific abstractors prepare two types of abstracts, the short Thomson Scientific alerting abstract, and the longer documentation abstract. The abstractor considers both the claims and the disclosure of the patent when preparing abstracts following precise rules. Abstracting rules are enforced to ensure consistent coverage of the information.

During 1999/2000, important changes were introduced to the structure and content of these abstracts. The abstracts are still written in plain English, removing unnecessary wordiness and legal jargon found in the original, but now contain more detail than before. As well as containing improved technical content, the abstracts also make use of several informative paragraph headings, which make the description of the invention easier to read. The new abstracts began to be produced by Thomson Scientific in February 1999

The Claims

The claims define and limit the scope of the invention. From the legal point of view they are all that matters, the rest of the specification merely serves to interpret the claims and to justify them. There is popular belief that Claim 1 is the broadest claim, but this is by no means always true. For many specifications, there may be a series of product, process, and composition claims each with its own main claim. With US patents, there may be a number of independent claims with no clearly defined broadest claim. In general, however, for any series of claims, there will be a main claim whose conditions are essential to the Novel feature, and a series of subordinate claims which the abstract will report as being preferred or optional characteristics of the invention.

Description Part:

The "body" of the specification is relatively unimportant from the legal point of view. However, for the research worker and novelty searcher, the disclosure made in the description is just as important as the claims. The text of the "body" of the specification normally follows the familiar pattern of stating the subject to which the invention relates, the prior art and its disadvantages, the widest disclosure of the invention, some preferred conditions and finally some specific examples. In the case of new compounds, properties and uses are given.

Alerting Abstract

The alerting abstract is published by Thomson Scientific shortly after the appearance of the patent to which it refers and is intended to give the reader a rapid indication of whether the patent is likely to be of interest. Abstracts are written in concise English covering the widest scope of the invention as set out in the main claim. They are concise, accurate, and relevant; approximately 120 words long, and include the use and advantage of the invention.

The current alerting abstracts introduced in 1999/2000 contain a series of titled paragraphs. The layout style of the data may vary from product to product. For example, an engineering abstract printed in *World Patents Abstracts* and *Tailor-Made Patents Profiles* will contain sections: Novelty, Detailed Description, Use, Advantage, and Description of Drawings, in this order. In printed *Industry and Technology Patents Profiles* the Use, Advantage, and Description of Drawings appears before the abstract Novelty and Detailed Description, for emphasis.

Drawings/Images

In the abstract, (a) the figure number of drawing used from total drawings present is expressed as Dwg. No. 3/5, (b) no drawing used from total drawings present (5) expressed as Dwg. No. 0/5, and (c) no drawings present expressed as Dwg. No. 0/0. A similar indication of drawings is included at the end of the Thomson Scientific-generated titles for entries where no abstract is provided.

Images are available online in *DWPI*. The majority of these cover patents of an electrical and engineering nature. Users can presently access the drawings in these technologies as far back as 1988. Formulae in the chemical area are taken from Thomson Scientific's Alerting Abstracts Bulletins (rather than the *Documentation Abstracts*) and date back to the beginning of 1992 (Update 199201). There are about 25,000 drawings each year exclusively from this source. As of mid-2006 there were 8.2 million records containing drawings and chemical formulae (some records can contain more than one drawing).

Table 9 Fields in the current Alerting Abstracts

Novelty	provides a succinct description of how the invention claims to be a non-obvious improvement over previous technology (the "prior art"). This forms the opening paragraph of the new Alert Abstract, and will often be expanded upon within the Detailed Description.
Detailed Description	this is an optional paragraph, and will be included when it is not possible to summarise the main independent claim(s) of the invention within the limits of the Novelty paragraph. Whenever there are other independent claims these will be included within the Detailed Description preceded by the phrase **An Independent Claim** or **Independent Claims.**
Activity	used to describe the biological activity of chemical or biological entities. This is used especially for pharmaceutical, veterinary and agrochemical inventions.
Mechanism of action	will cover the biological mechanism-of-action for chemical or biological entities (where given). This is used for pharmaceutical, veterinary and agrochemical inventions.
Use	this paragraph is always present, and covers all the uses (applications) of the invention in terms of its different technology areas. If there are no disclosed uses, this is stated.
Advantage	will cover all the advantages of the invention resulting from the 'novelty', as described by the author.
Description of Drawings	this paragraph will be present in the online abstract whenever a technical drawing is referenced by the Thomson Derwent Abstractor and will be of particular interest to Engineering customers. A caption type description of the drawing(s), with an explanation of any reference numerals, will be included.

Figure 9 Sample Alerting Abstract (chemical)

A B C D E F

★BAXT B07 2000-543877/49 ★WO 200050108-A1

Syringe for injection of various liquid media comprises a sealing element in the form of a cylindrical plug located between the face of the cannula connection unit and a ring shoulder in the cap cavity (Ger) — L

G — BAXTER AG 1999.02.23 1999AT-000117 — H

A96 P34 (A17 A23) (2000.08.31) A61M 5/31, A61M 5/28 — J

I — 2000.02.22 2000WO-AT00045 N(AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN — M
MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW) R(AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW)

K

Novelty: Syringe, with a body (1), a cannula connection unit (6, 27) and a cap (9) comprises a sealing element (24) which takes the form of a cylindrical plug located between the face of the cannular connection unit and a ring shoulder (39) in the cavity of the elongate cap section (11).

Detailed Description: An INDEPENDENT CLAIM is also included for a cannula connection unit which consists of sections (6, 27), and is provided with an axial bore (33).

Use: For injection of various liquid media.

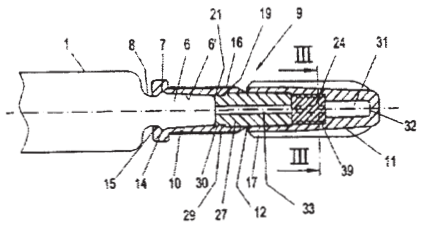
Advantage: The unit serving for connection of a cannula to the syringe body is reliably sealed and protected against contamination. It is simply handleable both during manufacture and filling of the syringe body, and during subsequent preparation of the syringe for connection of a cannula.

Description of Drawing(s): The drawing shows the proposed syringe.

Syringe body 1
Cannula connection unit 6, 27
Cap 9
Cap sections 10, 11
Cap fracture notch 12
Sealing element 24
Bore 33
Ring shoulder 39

P — (32pp Dwg.No.2/12)

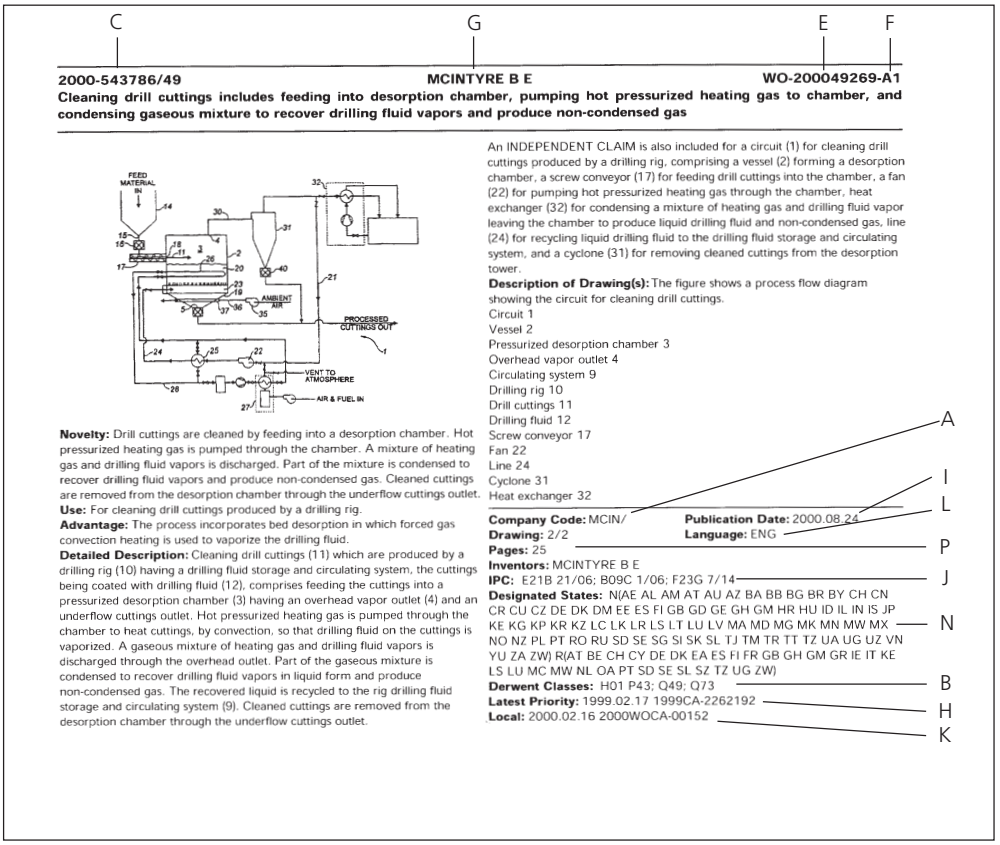
C2000-161916



Key to Flagged Terms

A	Thomson Scientific Patentee Codes	I	Publication date of patent document
B	Thomson Scientific Classification	J	International Patent Classification
C	Primary Accession Number (Year, Serial, Update)	K	Local filing details
D	Basic (★) or Equivalent (=) indicator	L	Language of Application
E	Patent Number	M	Designated States (N-National, R-Regional)
F	Patent Status (A-1st, B-2nd, C-3rd Publication)	P	Number of Pages & Drawing Reference
G	Patentee Name		
H	Priorities (Date, Country, Number)		

Figure 10 Sample Industry and Technology Patents Profile Abstract



C G E F

2000-543786/49 **MCINTYRE B E** **WO-200049269-A1**

Cleaning drill cuttings includes feeding into desorption chamber, pumping hot pressurized heating gas to chamber, and condensing gaseous mixture to recover drilling fluid vapors and produce non-condensed gas

Novelty: Drill cuttings are cleaned by feeding into a desorption chamber. Hot pressurized heating gas is pumped through the chamber. A mixture of heating gas and drilling fluid vapors is discharged. Part of the mixture is condensed to recover drilling fluid vapors and produce non-condensed gas. Cleaned cuttings are removed from the desorption chamber through the underflow cuttings outlet.

Use: For cleaning drill cuttings produced by a drilling rig.

Advantage: The process incorporates bed desorption in which forced gas convection heating is used to vaporize the drilling fluid.

Detailed Description: Cleaning drill cuttings (11) which are produced by a drilling rig (10) having a drilling fluid storage and circulating system, the cuttings being coated with drilling fluid (12), comprises feeding the cuttings into a pressurized desorption chamber (3) having an overhead vapor outlet (4) and an underflow cuttings outlet. Hot pressurized heating gas is pumped through the chamber to heat cuttings, by convection, so that drilling fluid on the cuttings is vaporized. A gaseous mixture of heating gas and drilling fluid vapors is discharged through the overhead outlet. Part of the gaseous mixture is condensed to recover drilling fluid vapors in liquid form and produce non-condensed gas. The recovered liquid is recycled to the rig drilling fluid storage and circulating system (9). Cleaned cuttings are removed from the desorption chamber through the underflow cuttings outlet.

An INDEPENDENT CLAIM is also included for a circuit (1) for cleaning drill cuttings produced by a drilling rig, comprising a vessel (2) forming a desorption chamber, a screw conveyor (17) for feeding drill cuttings into the chamber, a fan (22) for pumping hot pressurized heating gas through the chamber, heat exchanger (32) for condensing a mixture of heating gas and drilling fluid vapor leaving the chamber to produce liquid drilling fluid and non-condensed gas, line (24) for recycling liquid drilling fluid to the drilling fluid storage and circulating system, and a cyclone (31) for removing cleaned cuttings from the desorption tower.

Description of Drawing(s): The figure shows a process flow diagram showing the circuit for cleaning drill cuttings.

Circuit 1
Vessel 2
Pressurized desorption chamber 3
Overhead vapor outlet 4
Circulating system 9
Drilling rig 10
Drill cuttings 11
Drilling fluid 12
Screw conveyor 17
Fan 22
Line 24
Cyclone 31
Heat exchanger 32

Company Code: MCIN/ **Publication Date:** 2000.08.24
Drawing: 2/2 **Language:** ENG
Pages: 25
Inventors: MCINTYRE B E
IPC: E21B 21/06; B09C 1/06; F23G 7/14
Designated States: N(AE AL AM AT AU AZ BA BB BG BR BY CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW) R(AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW)
Derwent Classes: H01 P43; Q49; Q73
Latest Priority: 1999.02.17 1999CA-2262192
Local: 2000.02.16 2000WOCA-00152

A I L P J N B H K

Key to Flagged Terms

- A Thomson Scientific Patentee Codes
- B Thomson Scientific Classification
- C Primary Accession Number (Year, Serial, Update)
- D Basic (★) or Equivalent (=) indicator
- E Patent Number
- F Patent Status (A-1st, B-2nd, C-3rd Publication)
- G Patentee Name
- H Priorities (Date, Country, Number)
- I Publication date of patent document
- J International Patent Classification
- K Local filing details
- L Language of Application
- M Citations
- N Designated States (N-National, R-Regional)

For Basics Only

- P No of Pages and Drawing Reference
- Q Secondary Accession Number (Microfilm auto-indexing number)

Documentation Abstract

The documentation abstract is produced for patents from Sections A-M only and is published by Thomson Scientific shortly after the appearance of the patent to which it refers. It is between 250-500 words and is intended to give the reader more detail than the alerting abstract.

The documentation abstract presents in an easy-to-scan fashion, not only the general novelty of the invention as indicated by the main claim and any independent claims which may exist, specific uses and advantages, typical compounds, preferred features as indicated in subordinate claims, any further useful information given in the disclosure and a summary of one or more of the most useful specific examples chosen from the many which may appear in the patent document.

Chemical preparation methods are often presented as reaction schemes to aid rapid scanning, and display formulae are extensively used. Distinct sections are headed to allow rapid scanning for particular features of interest. Irrelevant and conventional material given in the document is eliminated, giving a concise but highly informative abstract which is specifically designed for use in retrospective searching but is also highly informative if used as a source of current awareness.

The current *Documentation Abstracts* format, introduced in 1999/2000, covers the invention in full and includes all possible abstract fields (where relevant). This is available as the Extension Abstract. The Alert Abstract includes only those fields as mentioned under 'Alerting Abstract', and the Technology Focus abstract includes the Alert Abstract fields plus the technology focus field.

The main change to the records is the introduction of more paragraph headings and text within the existing abstract.

The following headings are the same as for the Alerting abstract and descriptions can be found on page 179.

- Novelty.
- Detailed Description.
- Activity, Mechanism of Action.
- Use.
- Advantage.
- Description of Drawings.

The Extension Abstract contains series of titled paragraphs, as described below, and is only used for inventions classified in CPI. When taken together the Alert, Technology Focus, and Extension Abstract fields represent the online implementation of Thomson Scientific's in-depth *Documentation Abstracts* (previously only available in print and CD-ROM).

The following headings are the extension abstract fields which are found only in the documentation abstract.

Table 10 Extension abstract fields only available in Documentation Abstracts

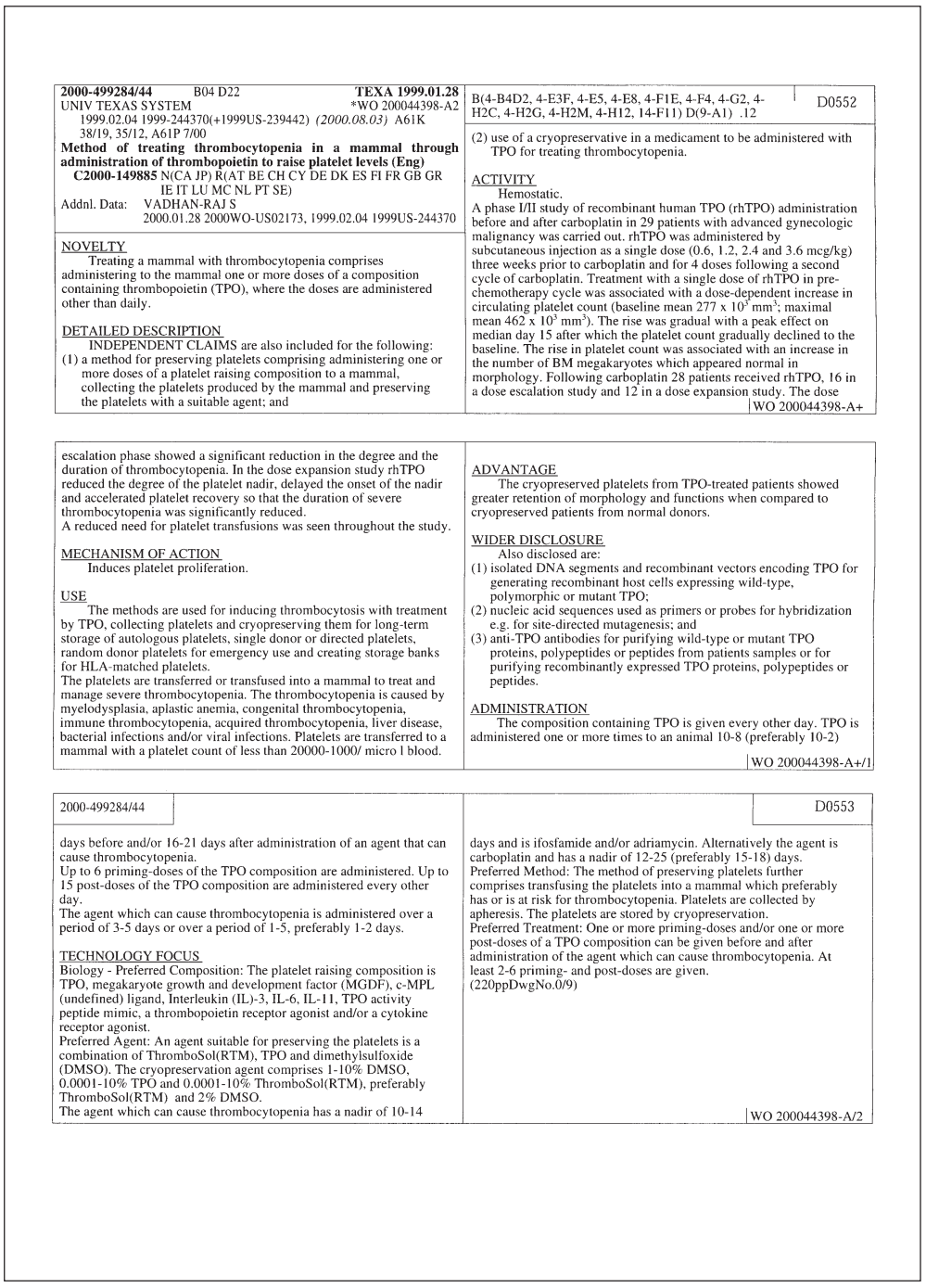
Wider Disclosure	used when the scope and/or novelty of the invention, as defined in the body of the specification, is broader than that of the main independent claim(s). The paragraph will contain those novel features and/or applications which fall outside the definition of the invention, as described in the legal claims. The wider disclosure paragraph is not used for patents which are related to other patents or applications, which have already been published, e.g. United States 'continuation-in-part' documents.
Administration	used to cover details of dosages and methods of administration for pharmaceutical/veterinary patents, or rates of application and application methods in agrochemical patents.
Specific 'Substances'	this is used for specific substances which relate to, or exemplify, the novel features of the invention, and not to cover all specific substances. The information is grouped together under one or more headings selected from a controlled list, depending on the 'substances' being defined, e.g. specific compounds, specific sequences, specific cells specific materials, etc.
Example	a summary of an example which provides data in support of the advantages of the claimed invention, or details about how the invention is carried out in practice. The paragraph is not included if it does not add any information to that already reported in the Technology Focus Abstract.
Definitions	this is normally immediately followed by the phrase 'preferred definitions:'. The paragraph is used to detail the preferred options for Markush chemical formulae defined in the Detailed Description paragraph of the Alert Abstract.

The paragraph headings available in the Technology Focus field are described below.

Table 11 Paragraph headings available in the Technology Focus field

Agriculture	Covers pesticides, herbicides, fungicides, fertilisers, etc, but not their preparation - see Organic Chemistry.
Biology	Covers naturally occurring biological materials (i.e. not engineered), immunoassays, etc.
Biotechnology	Covers genetic engineering (recombinant DNA technology), etc.
Ceramics and Glass	Covers glass, refractories, ceramics, cement, etc.
Chemical Engineering	Covers large scale, industrial processing of chemicals.
Computing and Control	Covers automotive, environmental, manufacturing processes, etc.
Electrical Power and Energy	Covers power generation, nuclear power, radioactivity.
Electronics	Covers electronic circuits and devices.
Environment	Covers pollution control, water treatment, sewage treatment, etc.
Food	Covers human foodstuffs, brewing, animal feed, etc.
Imaging & Communication	Covers imaging technologies, inks, printing, electrophotography, recording media, broadcasting and telecommunications.
Industrial Standards	Used when comparison to industrial standards are made.
Inorganic Chemistry	Covers all inorganic materials, except Ceramics and Glass.
Instrumentation and Testing	Covers chemical analysis, testing, medical equipment.
Mechanical Engineering	Covers polymer processing machinery, mechanical equipment, etc.
Metallurgy	Covers metal treatment/production/refining/working/ finishing, alloys, solders, etc.
Organic Chemistry	Covers the preparation of all organic chemicals, including pharmaceuticals and agrochemicals, but not polymers - see Polymers.
Pharmaceuticals	Covers pharmaceutically active compounds and compositions, including veterinary drugs, but not their preparation - see Organic Chemistry.
Polymers	Covers all polymer types, preparation of polymers, etc.
Textiles and Paper	Covers paper/cardboard, natural/synthetic textiles, and their processing.

Figure 11 Sample printed Documentation Abstract



2000-499284/44 B04 D22 **TEXA 1999.01.28**
UNIV TEXAS SYSTEM *WO 200044398-A2
1999.02.04 1999-244370(+1999US-239442) *(2000.08.03)* A61K 38/19, 35/12, A61P 7/00
Method of treating thrombocytopenia in a mammal through administration of thrombopoietin to raise platelet levels (Eng)
C2000-149885 N(CA JP) R(AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE)
Addnl. Data: VADHAN-RAJ S
2000.01.28 2000WO-US02173, 1999.02.04 1999US-244370

B(4-B4D2, 4-E3F, 4-E5, 4-E8, 4-F1E, 4-F4, 4-G2, 4-H2C, 4-H2G, 4-H2M, 4-H12, 14-F11) D(9-A1) .12 D0552

NOVELTY
Treating a mammal with thrombocytopenia comprises administering to the mammal one or more doses of a composition containing thrombopoietin (TPO), where the doses are administered other than daily.

DETAILED DESCRIPTION
INDEPENDENT CLAIMS are also included for the following:
(1) a method for preserving platelets comprising administering one or more doses of a platelet raising composition to a mammal, collecting the platelets produced by the mammal and preserving the platelets with a suitable agent; and
(2) use of a cryopreservative in a medicament to be administered with TPO for treating thrombocytopenia.

ACTIVITY
Hemostatic.
A phase I/II study of recombinant human TPO (rhTPO) administration before and after carboplatin in 29 patients with advanced gynecologic malignancy was carried out. rhTPO was administered by subcutaneous injection as a single dose (0.6, 1.2, 2.4 and 3.6 mcg/kg) three weeks prior to carboplatin and for 4 doses following a second cycle of carboplatin. Treatment with a single dose of rhTPO in pre-chemotherapy cycle was associated with a dose-dependent increase in circulating platelet count (baseline mean 277 x 10^3 mm^3; maximal mean 462 x 10^3 mm^3). The rise was gradual with a peak effect on median day 15 after which the platelet count gradually declined to the baseline. The rise in platelet count was associated with an increase in the number of BM megakaryotes which appeared normal in morphology. Following carboplatin 28 patients received rhTPO, 16 in a dose escalation study and 12 in a dose expansion study. The dose

WO 200044398-A+

escalation phase showed a significant reduction in the degree and the duration of thrombocytopenia. In the dose expansion study rhTPO reduced the degree of the platelet nadir, delayed the onset of the nadir and accelerated platelet recovery so that the duration of severe thrombocytopenia was significantly reduced.
A reduced need for platelet transfusions was seen throughout the study.

MECHANISM OF ACTION
Induces platelet proliferation.

USE
The methods are used for inducing thrombocytosis with treatment by TPO, collecting platelets and cryopreserving them for long-term storage of autologous platelets, single donor or directed platelets, random donor platelets for emergency use and creating storage banks for HLA-matched platelets.
The platelets are transferred or transfused into a mammal to treat and manage severe thrombocytopenia. The thrombocytopenia is caused by myelodysplasia, aplastic anemia, congenital thrombocytopenia, immune thrombocytopenia, acquired thrombocytopenia, liver disease, bacterial infections and/or viral infections. Platelets are transferred to a mammal with a platelet count of less than 20000-1000/ micro l blood.

ADVANTAGE
The cryopreserved platelets from TPO-treated patients showed greater retention of morphology and functions when compared to cryopreserved patients from normal donors.

WIDER DISCLOSURE
Also disclosed are:
(1) isolated DNA segments and recombinant vectors encoding TPO for generating recombinant host cells expressing wild-type, polymorphic or mutant TPO;
(2) nucleic acid sequences used as primers or probes for hybridization e.g. for site-directed mutagenesis; and
(3) anti-TPO antibodies for purifying wild-type or mutant TPO proteins, polypeptides or peptides from patients samples or for purifying recombinantly expressed TPO proteins, polypeptides or peptides.

ADMINISTRATION
The composition containing TPO is given every other day. TPO is administered one or more times to an animal 10-8 (preferably 10-2)

WO 200044398-A+/1

2000-499284/44 D0553

days before and/or 16-21 days after administration of an agent that can cause thrombocytopenia.
Up to 6 priming-doses of the TPO composition are administered. Up to 15 post-doses of the TPO composition are administered every other day.
The agent which can cause thrombocytopenia is administered over a period of 3-5 days or over a period of 1-5, preferably 1-2 days.

TECHNOLOGY FOCUS
Biology - Preferred Composition: The platelet raising composition is TPO, megakaryote growth and development factor (MGDF), c-MPL (undefined) ligand, Interleukin (IL)-3, IL-6, IL-11, TPO activity peptide mimic, a thrombopoietin receptor agonist and/or a cytokine receptor agonist.
Preferred Agent: An agent suitable for preserving the platelets is a combination of ThromboSol(RTM), TPO and dimethylsulfoxide (DMSO). The cryopreservation agent comprises 1-10% DMSO, 0.0001-10% TPO and 0.0001-10% ThromboSol(RTM), preferably ThromboSol(RTM) and 2% DMSO.
The agent which can cause thrombocytopenia has a nadir of 10-14 days and is ifosfamide and/or adriamycin. Alternatively the agent is carboplatin and has a nadir of 12-25 (preferably 15-18) days.
Preferred Method: The method of preserving platelets further comprises transfusing the platelets into a mammal which preferably has or is at risk for thrombocytopenia. Platelets are collected by apheresis. The platelets are stored by cryopreservation.
Preferred Treatment: One or more priming-doses and/or one or more post-doses of a TPO composition can be given before and after administration of the agent which can cause thrombocytopenia. At least 2-6 priming- and post-doses are given.
(220ppDwgNo.0/9)

WO 200044398-A/2

Figure 12 Equivalent online sample Abstract

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L1    ANSWER 1 OF 1  WPIX COPYRIGHT 2006  THE THOMSON CORP on STN
AN    2000-499284 [44]     WPIX   Full-text
ED    20050411
DNC   C2000-149885 [44]
TI    Method of treating thrombocytopenia in a mammal through
      administration of thrombopoietin to raise platelet levels
DC    B04; D22
IN    VADHAN-RAJ S
PA    (TEXA-C) UNIV TEXAS SYSTEM
CYC   19
PI    WO 2000044398 A2 20000803 (200044)* EN 220[9] A61K038-19
      EP 1146895    A2 20011024 (200171)  EN        A61K038-19
      JP 2002535373 W  20021022 (200301)  JA 235    A61K038-22
      EP 1146895    B1 20031112 (200380)  EN        A61K038-19
      DE 60006487   E  20031218 (200407)  DE
      EP 1374890    A2 20040102 (200409)  EN        A61K038-19
ADT   WO 2000044398 A2 WO 2000-US2173 20000128; DE 60006487 E DE
      2000-60006487 20000128; EP 1146895 A2 EP 2000-913278 20000128;
      EP 1146895 B1 EP 2000-913278 20000128; DE 60006487 E EP 2000-
      913278 20000128; EP 1374890 A2 Div Ex EP 2000-913278 20000128;
      JP 2002535373 W JP 2000-595700 20000128; EP 1146895 A2 WO
      2000-US2173 20000128; JP 2002535373 W WO 2000-US2173 20000128;
      EP 1146895 B1 WO 2000-US2173 20000128; DE 60006487 E WO 2000-
      US2173 20000128; EP 1374890 A2 EP 2003-21505 20000128
FDT   DE 60006487 E Based on EP 1146895 A; EP 1374890 A2 Div ex EP
      1146895 A; EP 1146895 A2 Based on WO 2000044398 A; JP
      2002535373 W Based on WO 2000044398 A; EP 1146895 B1 Based on
      WO 2000044398 A; DE 60006487 E Based on WO 2000044398 A
PRAI  US 1999-244370 19990204
      US 1999-239442 19990128
IC    ICM A61K038-19; A61K038-22
      ICS A61K031-282; A61K031-675; A61K031-704; A61K035-12;
          A61K035-14; A61K045-00; A61K009-19; A61P035-00; A61P007-00
AB    WO 2000044398 A2    UPAB: 20050411
          NOVELTY - Treating a mammal with thrombocytopenia comprises
      administering to the mammal one or more doses of a composition
      containing thrombopoietin (TPO), where the doses are
      administered other than daily.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included
      for the following:
          (1) a method for preserving platelets comprising
      administering one or more doses of a platelet raising
      composition to a mammal, collecting the platelets produced by
      the mammal and preserving the platelets with a suitable agent;
      and
          (2) use of a cryopreservative in a medicament to be
      administered with TPO for treating thrombocytopenia.
          ACTIVITY - Hemostatic.
          A phase I/II study of recombinant human TPO (rhTPO)
      administration before and after carboplatin in 29 patients
      with advanced gynecologic malignancy was carried out. rhTPO
      was administered by subcutaneous injection as a single dose
      (0.6, 1.2, 2.4 and 3.6 mcg/kg) three weeks prior to
      carboplatin and for 4 doses following a second cycle of
      carboplatin. Treatment with a single dose of rhTPO in pre-
      chemotherapy cycle was associated with a dose-dependent
      increase in circulating platelet count (baseline mean 277 x 10
      power 3 cubic mm; maximal mean 462 x 10 power 3 cubic mm). The
      rise was gradual with a peak effect on median day 15 after
      which the platelet count gradually declined to the baseline.
      The rise in platelet count was associated with an increase in
      the number of BM megakaryotes which appeared normal in
```

morphology. Following carboplatin 28 patients received rhTPO, 16 in a dose escalation study and 12 in a dose expansion study. The dose escalation phase showed a significant reduction in the degree and the duration of thrombocytopenia. In the dose expansion study rhTPO reduced the degree of the platelet nadir, delayed the onset of the nadir and accelerated platelet recovery so that the duration of severe thrombocytopenia was significantly reduced.

A reduced need for platelet transfusions was seen throughout the study.

MECHANISM OF ACTION - Induces platelet proliferation.

USE - The methods are used for inducing thrombocytosis with treatment by TPO, collecting platelets and cryopreserving them for long-term storage of autologous platelets, single donor or directed platelets, random donor platelets for emergency use and creating storage banks for HLA-matched platelets.

The platelets are transferred or transfused into a mammal to treat and manage severe thrombocytopenia. The thrombocytopenia is caused by myelodysplasia, aplastic anemia, congenital thrombocytopenia, immune thrombocytopenia, acquired thrombocytopenia, liver disease, bacterial infections and/or viral infections. Platelets are transferred to a mammal with a platelet count of less than 20000-1000/microliter blood.

ADVANTAGE - The cryopreserved platelets from TPO-treated patients showed greater retention of morphology and functions when compared to cryopreserved patients from normal donors.

TECH BIOLOGY - Preferred Composition: The platelet raising composition is TPO, megakaryote growth and development factor (MGDF), c-MPL (undefined) ligand, Interleukin (IL)-3, IL-6, IL-11, TPO activity peptide mimic, a thrombopoietin receptor agonist and/or a cytokine receptor agonist.

Preferred Agent: An agent suitable for preserving the platelets is a combination of ThromboSol(RTM), TPO and dimethylsulfoxide (DMSO). The cryopreservation agent comprises 1-10% DMSO, 0.0001-10% TPO and 0.0001-10% ThromboSol(RTM), preferably ThromboSol(RTM) and 2% DMSO.

The agent which can cause thrombocytopenia has a nadir of 10-14 days and is ifosfamide and/or adriamycin. Alternatively the agent is carboplatin and has a nadir of 12-25 (preferably 15-18) days.

Preferred Method: The method of preserving platelets further comprises transfusing the platelets into a mammal which preferably has or is at risk for thrombocytopenia. Platelets are collected by apheresis. The platelets are stored by cryopreservation.

Preferred Treatment: One or more priming-doses and/or one or more post-doses of a TPO composition can be given before and after administration of the agent which can cause thrombocytopenia. At least 2-6 priming- and post-doses are given.

ABEX Also disclosed are:(1) isolated DNA segments and recombinant vectors encoding TPO for generating recombinant host cells expressing wild-type, polymorphic or mutant TPO;(2) nucleic acid sequences used as primers or probes for hybridization e.g. for site-directed mutagenesis; and(3) anti-TPO antibodies for purifying wild-type or mutant TPO proteins, polypeptides or peptides from patients samples or for purifying recombinantly expressed TPO proteins, polypeptides or peptides.

ADMINISTRATION - The composition containing TPO is given every other day. TPO is administered one or more times to an animal 10-8 (preferably 10-2) days before and/or 16-21 days after administration of an agent that can cause

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      thrombocytopenia. ADMINISTRATION - Up to 6 priming-doses of
      the TPO composition are administered. Up to 15 post-doses of
      the TPO composition are administered every other day.
          ADMINISTRATION - The agent which can cause thrombocytopenia
      is administered over a period of 3-5 days or over a period of
      1-5, preferably 1-2 days.
IT    UPIT 20050411
      200757-CL 200757-PRD; 123410-CL 123410-USE; 184587-CL 184587-
      NEW; 93605-CL 93605-NEW; 184610-CL 184610-NEW
FS    CPI
MC    CPI:B04-B04D2; B04-E03F; B04-E05; B04-E08; B04-F0100E;
          B04-F04; B04-G02; B04-H02C; B04-H02G; B04-H02M; B04-H12;
          B14-F11; D09-A01
CMC   UPB 20050411
      M1  *01* M423 M720 N135 N136 Q233  M905
               DCN: RA00GT-K RA00GT-P
               DCR: 200757-K 200757-P 200799-K 200799-P
      M1  *02* M423 M781 N135 P812 Q233  M905
               DCN: RA0JW7-K RA0JW7-T RA0JW7-U
               DCR: 123410-K 123410-T 123410-U
      M1  *03* M423 M710 N135 Q233  M905
               DCN: RA00C8-N
               DCR: 184587-N
      M1  *04* M423 M710 N135 Q233  M905
               DCN: RA00NS-N
               DCR: 93605-N
      M1  *05* M423 M710 N135 Q233  M905
               DCN: RA013I-N
               DCR: 184610-N

L1    ANSWER 1 OF 1  WPIX COPYRIGHT 2006     THE THOMSON CORP on STN

Member(0001)
PI    WO 2000044398 A2 20000803 (200044)* EN 220[9] A61K038-19
TIEN METHODS FOR INCREASING CIRCULATING PLATELETS FOR COLLECTION
      AND CRYOPRESERVATION USING THROMBOPOIETIN COMPOSITIONS
TIFR PROCEDES D'AUGMENTATION DE PLAQUETTES CIRCULANTES POUR
      PRELEVEMENT ET CRYOCONSERVATION AVEC DES COMPOSITIONS DE
      THROMBOPOIETINE
AG    HURT, Jonathan, D.
      AGA: Arnold White & Durkee, 750 Bering Drive, Houston, TX
      77057-2198, US
IN    VADHAN-RAJ S
          INO: VADHAN-RAJ, Saroj
          INA: 21 Harbor View Drive, Sugarland, TX 77479, US
PA    (TEXA-C) UNIV TEXAS SYSTEM
          PAO: BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
          PAA: 201 W. 7th Street, Austin, TX 78701, US
          Residence: US
          Nationality: US
ADT   WO 2000044398 A2 WO        2000-US2173   20000128
APTS  2000WO-US0002173
PRAI  US 1999-239442 19990128; US 1999-244370 19990204
PRTS  1999US-000239442; 1999US-000244370
IC    ICM A61K038-19
      ICS A61K035-12; A61P007-00
IIC   IICM     A61K038-19
      IICS     A61K035-12; A61P007-00
ABEN  The present invention relates generally to the fields of
      platelet production in a patient and cryopreservation of
      platelets isolated from a patient. More particularly, it
      concerns transfusion of autologous of allogeneic cryopreserved
      platelets into a patient to prevent or manage
      thrombocytopenia.
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ABFR La presente invention concerne de facon generale la production
     de plaquettes chez un patient, lesquelles sont ensuite isolees
     et conservees a tres basse temperature. Plus particulierement,
     cette invention concerne l'autotransfusion d'un patient avec
     des plaquettes allogeniques conservees a tres basses
     temperatures pour prevenir ou traiter la thrombocytopenie.

Member(0002)
PI   EP 1146895    A2 20011024 (200171)  EN          A61K038-19
TIDE VERFAHREN ZUR VERHOeHUNG VON ZIRKULIERENDEN PLATTCHEN FUR
     GEWINNUNG ODER KRYOKONSERVIERUNG MIT
     THROMBOPOIETINZUSAMMENSETZUNGEN
TIEN METHODS FOR INCREASING CIRCULATING PLATELETS FOR COLLECTION
     AND CRYOPRESERVATION USING THROMBOPOIETIN COMPOSITIONS
TIFR PROCEDES D'AUGMENTATION DE PLAQUETTES CIRCULANTES POUR
     PRELEVEMENT ET CRYOCONSERVATION AVEC DES COMPOSITIONS DE
     THROMBOPOIETINE
AG   Gowshall, Jonathan Vallance
         AGA: FORRESTER & BOEHMERT, Pettenkoferstrasse 20-22, 80336
              Muenchen, DE
IN   VADHAN-RAJ S
         INO: VADHAN-RAJ, Saroj
         INA: 21 Harbor View Drive, Sugarland, TX 77479, US
PA   -
         PAO: BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
         PAA: Office of General Council, 201 West 7th Street,
              Austin, Texas 78701, US
ADT  EP 1146895 A2 EP 2000-913278 20000128; EP 1146895 A2 WO 2000-
     US2173 20000128
APTS 2000EP-000913278; 2000WO-US0002173
FDT  EP 1146895 A2 Based on WO 2000044398 A
PRAI US 1999-239442 19990128; US 1999-244370 19990204
PRTS 1999US-000239442; 1999US-000244370
IC   ICM A61K038-19
     ICS A61K035-12; A61P007-00
IIC  IICM     A61K038-19
     IICS     A61K035-12; A61P007-00
ABEN The present invention relates generally to the fields of
     platelet production in a patient and cryopreservation of
     platelets isolated from a patient. More particularly, it
     concerns transfusion of autologous of allogeneic cryopreserved
     platelets into a patient to prevent or manage
     thrombocytopenia.

Member(0003)
PI   JP 2002535373 W  20021022 (200301)  JA 235     A61K038-22
ADT  JP 2002535373 W JP 2000-595700 20000128; JP 2002535373 W WO
     2000-US2173 20000128
APTS 2000JP-000595700; 2000WO-US0002173
FDT  JP 2002535373 W Based on WO 2000044398 A
PRAI US 1999-239442 19990128; US 1999-244370 19990204
PRTS 1999US-000239442; 1999US-000244370
IC   ICM A61K038-22
     ICS A61K009-19; A61K031-282; A61K031-675; A61K031-704;
         A61K035-14; A61K045-00; A61P007-00; A61P035-00
IIC  IICM     A61K038-22
     IICS     A61K009-19; A61K031-282; A61K031-675; A61K031-704;
              A61K035-14; A61K045-00; A61P007-00; A61P035-00

Member(0004)
PI   EP 1146895     B1 20031112 (200380)  EN          A61K038-19
TIDE ERHOeHUNG VON ZIRKULIERENDEN PLATTCHEN MIT
     THROMBOPOIETINZUSAMMENSETZUNGEN
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TIEN THROMBOPOIETIN COMPOSITIONS FOR INCREASING CIRCULATING
     PLATELETS
TIFR AUGMENTATION DE PLAQUETTES CIRCULANTES AVEC DES COMPOSITIONS
     DE THROMBOPOIETINE
AG   Gowshall, Jonathan Vallance
         AGA: FORRESTER & BOEHMERT, Pettenkoferstrasse 20-22, 80336
              Muenchen, DE
IN   VADHAN-RAJ S
         INO: VADHAN-RAJ, Saroj
         INA: 21 Harbor View Drive, Sugarland, TX 77479, US
PA   -
         PAO: BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
         PAA: Office of General Council, 201 West 7th Street,
              Austin, Texas 78701, US
ADT  EP 1146895 B1 EP 2000-913278 20000128; EP 1146895 B1 WO 2000-
     US2173 20000128
APTS 2000EP-000913278; 2000WO-US0002173
FDT  EP 1146895 B1 Based on WO 2000044398 A
PRAI US 1999-239442 19990128; US 1999-244370 19990204
PRTS 1999US-000239442; 1999US-000244370
IC   ICM A61K038-19
     ICS A61K035-12; A61P007-00
IIC  IICM    A61K038-19
     IICS    A61K035-12; A61P007-00
CLMDE Verwendung einer Zusammensetzung umfassend TPO
     (Thrombopoietin) zur Herstellung eines Medikaments zur
     Behandlung eines Menschen, der eine Thrombozytopenie oder ein
     Risiko dafuer aufweist, wobei die Behandlung die Schritte
     umfasst von: (a) Verabreichung eines Mittels an einen
     Menschen, das fruehe-Nadir Thrombozytopenie verursachen kann;
     und (b) Verabreichung einer oder mehrerer vorbereitender
     Dosen einer Zusammensetzung umfassend TPO an den Menschen, vor
     der Verabreichung des Mittels.
CLMEN Use of a composition comprising TPO (thrombopoietin) for the
     manufacture of a medicament for treating a human having or at
     risk of thrombocytopenia, wherein the treatment is to comprise
     the steps of: (a) administration to a human of an agent which
     can cause early-nadir thromobocytopenia; and (b)
     administration to the human of one or more priming doses of a
     composition comprising TPO prior to administering the agent.
CLMFR Utilisation d'une composition comprenant de la TPO
     (thrombopoietine) pour la fabrication d'un medicament destine
     a traiter un humain presentant ou risquant de presenter une
     thrombocytopenie, dans laquelle le traitement doit comprendre
     les etapes consistant a: (a) administrer a un etre humain un
     agent qui peut provoquer une thrombocytopenie a nadir precoce;
     et (b) administrer a l'etre humain une ou plusieurs doses
     d'amorcage d'une composition comprenant de la TPO avant
     l'administration de l'agent.

Member(0005)
PI   DE 60006487 E 20031218 (200407) DE
PA   (TEXA-C) UNIV TEXAS SYSTEM
         PAA: US
ADT  DE 60006487 E DE 2000-60006487 20000128; DE 60006487 E EP
     2000-913278 20000128; DE 60006487 E WO 2000-US2173 20000128
APTS 2000DE-600006487; 2000EP-000913278; 2000WO-US0002173
FDT  DE 60006487 E Based on EP 1146895 A; DE 60006487 E Based on WO
     2000044398 A
PRAI US 1999-239442 19990128; US 1999-244370 19990204
PRTS 1999US-000239442; 1999US-000244370

Member(0006)
PI   EP 1374890   A2 20040102 (200409) EN        A61K038-19
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TIDE Thrombopoietinzusammensetzungen zur Verhoehung von
     zirkulierenden Plaettchen
TIEN Thrombopoietin compositions for increasing circulating
     platelets
TIFR Compositions de thrombopoietine pour l'augmentation de
     plaquettes circulantes
AG   Gowshall, Jonathan Vallance
         AGA: Forrester & Boehmert, Pettenkoferstrasse 20-22, 80336
              Muenchen, DE
PA   (TEXA-C) UNIV TEXAS SYSTEM
         PAO: BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
         PAA: Office of General Council, 201 West 7th Street,
              Austin, Texas 78701, US
ADT  EP 1374890 A2 Div Ex EP 2000-913278 20000128; EP 1374890 A2 EP
     2003-21505 20000128
APTS 2000EP-000913278; 2003EP-000021505
FDT  EP 1374890 A2 Div ex EP 1146895 A
PRAI US 1999-239442 19990128; US 1999-244370 19990204
PRTS 1999US-000239442; 1999US-000244370
IC   ICM A61K038-19
     ICS A61K035-12; A61P007-00
IIC  IICM     A61K038-19
     IICS     A61K035-12; A61P007-00
ABEN The present invention relates generally to the fields of
     platelet production in a patient and cryopreservation of
     platelets isolated from a patient. More particularly, it
     concerns transfusion of autologous of allorgeneic
     cryopreserved platelets into a patient to prevent or manage
     thrombocytopenia.
CLMENA method for treating a mammal having or at risk of
     thrombocytopenia, comprising the steps of: (a) administering
     to a mammal an agent which can cause thromobocytopenia; and
     (b) administering to the mammal one or more priming doses of a
     composition comprising TPO prior to administering the agent;
     and  (c) admininstering to the mammal one or more post-doses
     of a TPO composition after administering the agent.

L1   ANSWER 1 OF 1  WPIX COPYRIGHT 2006     THE THOMSON CORP on STN
AN   2000-499284 [44]    WPIX
DC   B04; D22
IC   ICM      A61K038-19; A61K038-22
     ICS A61K031-282; A61K031-675; A61K031-704; A61K035-12;
         A61K035-14; A61K045-00; A61K009-19; A61P035-00; A61P007-00
MC   CPI:     B04-B04D2; B04-E03F; B04-E05; B04-E08; B04-F0100E;
              B04-F04; B04-G02; B04-H02C; B04-H02G; B04-H02M;
              B04-H12; B14-F11; D09-A01
CMC  UPB 20050411
     M1  *01* M423 M720 N135 N136 Q233  M905
              DCN: RA00GT-K RA00GT-P
              DCR: 200757-K 200757-P 200799-K 200799-P
     M1  *02* M423 M781 N135 P812 Q233  M905
              DCN: RA0JW7-K RA0JW7-T RA0JW7-U
              DCR: 123410-K 123410-T 123410-U
     M1  *03* M423 M710 N135 Q233  M905
              DCN: RA00C8-N
              DCR: 184587-N
     M1  *04* M423 M710 N135 Q233  M905
              DCN: RA00NS-N
              DCR: 93605-N
     M1  *05* M423 M710 N135 Q233  M905
              DCN: RA013I-N
              DCR: 184610-N
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L1    ANSWER 1 OF 1  WPIX COPYRIGHT 2006        THE THOMSON CORP on STN
AN    2000-499284 [44]     WPIX   Full-text
ED    20050411
DNC   C2000-149885  [44]
TI    Method of treating thrombocytopenia in a mammal through
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DC    B04;  D22
IN    VADHAN-RAJ  S
PA    (TEXA-C)  UNIV  TEXAS  SYSTEM
CYC   19
PI    WO  2000044398 A2  20000803  (200044)*  EN  220[9]  A61K038-19
      EP  1146895    A2  20011024  (200171)   EN          A61K038-19
      JP  2002535373 W   20021022  (200301)   JA  235     A61K038-22
      EP  1146895    B1  20031112  (200380)   EN          A61K038-19
      DE  60006487   E   20031218  (200407)   DE
      EP  1374890    A2  20040102  (200409)   EN          A61K038-19
ADT   WO 2000044398 A2 WO 2000-US2173 20000128; DE 60006487 E DE
      2000-60006487 20000128; EP 1146895 A2 EP 2000-913278 20000128;
      EP 1146895 B1 EP 2000-913278 20000128; DE 60006487 E EP 2000-
      913278 20000128; EP 1374890 A2 Div Ex EP 2000-913278 20000128;
      JP 2002535373 W JP 2000-595700 20000128; EP 1146895 A2 WO
      2000-US2173 20000128; JP 2002535373 W WO 2000-US2173 20000128;
      EP 1146895 B1 WO 2000-US2173 20000128; DE 60006487 E WO 2000-
      US2173 20000128; EP 1374890 A2 EP 2003-21505 20000128
FDT   DE 60006487 E Based on EP 1146895 A; EP 1374890 A2 Div ex EP
      1146895 A; EP 1146895 A2 Based on WO 2000044398 A; JP
      2002535373 W Based on WO 2000044398 A; EP 1146895 B1 Based on
      WO 2000044398 A; DE 60006487 E Based on WO 2000044398 A
PRAI  US  1999-244370  19990204
      US  1999-239442  19990128
IC    ICM A61K038-19;  A61K038-22
      ICS A61K031-282;  A61K031-675;  A61K031-704;  A61K035-12;
          A61K035-14;  A61K045-00;  A61K009-19;  A61P035-00;  A61P007-00
AB    WO 2000044398 A2    UPAB: 20050411
          NOVELTY - Treating a mammal with thrombocytopenia comprises
      administering to the mammal one or more doses of a composition
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      for the following:
          (1) a method for preserving platelets comprising
      administering one or more doses of a platelet raising
      composition to a mammal, collecting the platelets produced by
      the mammal and preserving the platelets with a suitable agent;
      and
          (2) use of a cryopreservative in a medicament to be
      administered with TPO for treating thrombocytopenia.
          ACTIVITY - Hemostatic.
          A phase I/II study of recombinant human TPO (rhTPO)
      administration before and after carboplatin in 29 patients
      with advanced gynecologic malignancy was carried out. rhTPO
      was administered by subcutaneous injection as a single dose
      (0.6, 1.2, 2.4 and 3.6 mcg/kg) three weeks prior to
      carboplatin and for 4 doses following a second cycle of
      carboplatin. Treatment with a single dose of rhTPO in pre-
      chemotherapy cycle was associated with a dose-dependent
      increase in circulating platelet count (baseline mean 277 x 10
      power 3 cubic mm; maximal mean 462 x 10 power 3 cubic mm). The
      rise was gradual with a peak effect on median day 15 after
      which the platelet count gradually declined to the baseline.
      The rise in platelet count was associated with an increase in
      the number of BM megakaryotes which appeared normal in
      morphology. Following carboplatin 28 patients received rhTPO,
      16 in a dose escalation study and 12 in a dose expansion
```

study. The dose escalation phase showed a significant reduction in the degree and the duration of thrombocytopenia. In the dose expansion study rhTPO reduced the degree of the platelet nadir, delayed the onset of the nadir and accelerated platelet recovery so that the duration of severe thrombocytopenia was significantly reduced.

A reduced need for platelet transfusions was seen throughout the study.

MECHANISM OF ACTION - Induces platelet proliferation.

USE - The methods are used for inducing thrombocytosis with treatment by TPO, collecting platelets and cryopreserving them for long-term storage of autologous platelets, single donor or directed platelets, random donor platelets for emergency use and creating storage banks for HLA-matched platelets.

The platelets are transferred or transfused into a mammal to treat and manage severe thrombocytopenia. The thrombocytopenia is caused by myelodysplasia, aplastic anemia, congenital thrombocytopenia, immune thrombocytopenia, acquired thrombocytopenia, liver disease, bacterial infections and/or viral infections. Platelets are transferred to a mammal with a platelet count of less than 20000-1000/microliter blood.

ADVANTAGE - The cryopreserved platelets from TPO-treated patients showed greater retention of morphology and functions when compared to cryopreserved patients from normal donors.

TECH BIOLOGY - Preferred Composition: The platelet raising composition is TPO, megakaryote growth and development factor (MGDF), c-MPL (undefined) ligand, Interleukin (IL)-3, IL-6, IL-11, TPO activity peptide mimic, a thrombopoietin receptor agonist and/or a cytokine receptor agonist.

Preferred Agent: An agent suitable for preserving the platelets is a combination of ThromboSol(RTM), TPO and dimethylsulfoxide (DMSO). The cryopreservation agent comprises 1-10% DMSO, 0.0001-10% TPO and 0.0001-10% ThromboSol(RTM), preferably ThromboSol(RTM) and 2% DMSO.

The agent which can cause thrombocytopenia has a nadir of 10-14 days and is ifosfamide and/or adriamycin. Alternatively the agent is carboplatin and has a nadir of 12-25 (preferably 15-18) days.

Preferred Method: The method of preserving platelets further comprises transfusing the platelets into a mammal which preferably has or is at risk for thrombocytopenia. Platelets are collected by apheresis. The platelets are stored by cryopreservation.

Preferred Treatment: One or more priming-doses and/or one or more post-doses of a TPO composition can be given before and after administration of the agent which can cause thrombocytopenia. At least 2-6 priming- and post-doses are given.

ABEX Also disclosed are:(1) isolated DNA segments and recombinant vectors encoding TPO for generating recombinant host cells expressing wild-type, polymorphic or mutant TPO;(2) nucleic acid sequences used as primers or probes for hybridization e.g. for site-directed mutagenesis; and(3) anti-TPO antibodies for purifying wild-type or mutant TPO proteins, polypeptides or peptides from patients samples or for purifying recombinantly expressed TPO proteins, polypeptides or peptides.

ADMINISTRATION - The composition containing TPO is given every other day. TPO is administered one or more times to an animal 10-8 (preferably 10-2) days before and/or 16-21 days after administration of an agent that can cause thrombocytopenia. ADMINISTRATION - Up to 6 priming-doses of the TPO composition are administered. Up to 15 post-doses of the TPO composition are administered every other day.

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          ADMINISTRATION - The agent which can cause thrombocytopenia
      is administered over a period of 3-5 days or over a period of
      1-5, preferably 1-2 days.
IT    UPIT     20050411
      200757-CL 200757-PRD; 123410-CL 123410-USE; 184587-CL 184587-
      NEW; 93605-CL 93605-NEW; 184610-CL 184610-NEW
FS    CPI
MC    CPI:     B04-B04D2; B04-E03F; B04-E05; B04-E08; B04-F0100E;
               B04-F04; B04-G02; B04-H02C; B04-H02G; B04-H02M;
               B04-H12; B14-F11; D09-A01
CMC   UPB 20050411
      M1  *01* M423 M720 N135 N136 Q233  M905
               DCN: RA00GT-K RA00GT-P
               DCR: 200757-K 200757-P 200799-K 200799-P
      M1  *02* M423 M781 N135 P812 Q233  M905
               DCN: RA0JW7-K RA0JW7-T RA0JW7-U
               DCR: 123410-K 123410-T 123410-U
      M1  *03* M423 M710 N135 Q233  M905
               DCN: RA00C8-N
               DCR: 184587-N
      M1  *04* M423 M710 N135 Q233  M905
               DCN: RA00NS-N
               DCR: 93605-N
      M1  *05* M423 M710 N135 Q233  M905
               DCN: RA013I-N
               DCR: 184610-N

L1    ANSWER 1 OF 1  WPIX COPYRIGHT 2006     THE THOMSON CORP on STN
AN    2000-499284 [44]    WPIX
DC    B04; D22
IC    ICM A61K038-19; A61K038-22
      ICS A61K031-282; A61K031-675; A61K031-704; A61K035-12;
          A61K035-14; A61K045-00; A61K009-19; A61P035-00; A61P007-00
MC    CPI:     B04-B04D2; B04-E03F; B04-E05; B04-E08; B04-F0100E;
               B04-F04; B04-G02; B04-H02C; B04-H02G; B04-H02M;
               B04-H12; B14-F11; D09-A01
CMC   UPB 20050411
      M1  *01* M423 M720 N135 N136 Q233  M905
               DCN: RA00GT-K RA00GT-P
               DCR: 200757-K 200757-P 200799-K 200799-P
      M1  *02* M423 M781 N135 P812 Q233  M905
               DCN: RA0JW7-K RA0JW7-T RA0JW7-U
               DCR: 123410-K 123410-T 123410-U
      M1  *03* M423 M710 N135 Q233  M905
               DCN: RA00C8-N
               DCR: 184587-N
      M1  *04* M423 M710 N135 Q233  M905
               DCN: RA00NS-N
               DCR: 93605-N
      M1  *05* M423 M710 N135 Q233  M905
               DCN: RA013I-N
               DCR: 184610-N

L1    ANSWER 1 OF 1  WPIX COPYRIGHT 2006     THE THOMSON CORP on STN

Member(0001)
PI    WO 2000044398 A2 20000803 (200044)* EN 220[9] A61K038-19
TIEN METHODS FOR INCREASING CIRCULATING PLATELETS FOR COLLECTION
      AND CRYOPRESERVATION USING THROMBOPOIETIN COMPOSITIONS
TIFR PROCEDES D'AUGMENTATION DE PLAQUETTES CIRCULANTES POUR
      PRELEVEMENT ET CRYOCONSERVATION AVEC DES COMPOSITIONS DE
      THROMBOPOIETINE
AG    HURT, Jonathan, D.
          AGA: Arnold White & Durkee, 750 Bering Drive, Houston, TX
               77057-2198, US
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IN    VADHAN-RAJ  S
          INO: VADHAN-RAJ,  Saroj
          INA: 21 Harbor View Drive, Sugarland, TX 77479, US
PA    (TEXA-C)  UNIV  TEXAS  SYSTEM
          PAO: BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
          PAA: 201 W. 7th Street, Austin, TX 78701, US
          Residence: US
          Nationality:  US
ADT   WO 2000044398 A2 WO 2000-US2173 20000128
APTS  2000WO-US0002173
PRAI  US 1999-239442 19990128; US 1999-244370 19990204
PRTS  1999US-000239442;  1999US-000244370
IC    ICM A61K038-19
      ICS A61K035-12;  A61P007-00
IIC   IICM      A61K038-19
      IICS      A61K035-12;  A61P007-00
ABEN  The present invention relates generally to the fields of
      platelet production in a patient and cryopreservation of
      platelets isolated from a patient. More particularly, it
      concerns transfusion of autologous of allogeneic cryopreserved
      platelets into a patient to prevent or manage
      thrombocytopenia.
ABFR  La presente invention concerne de facon generale la production
      de plaquettes chez un patient, lesquelles sont ensuite isolees
      et conservees a tres basse temperature. Plus particulierement,
      cette invention concerne l'autotransfusion d'un patient avec
      des plaquettes allogeniques conservees a tres basses
      temperatures pour prevenir ou traiter la thrombocytopenie.

Member(0002)
PI    EP 1146895     A2  20011024  (200171)  EN          A61K038-19
TIDE  VERFAHREN ZUR VERHOeHUNG VON ZIRKULIERENDEN PLATTCHEN FUR
      GEWINNUNG ODER KRYOKONSERVIERUNG MIT
      THROMBOPOIETINZUSAMMENSETZUNGEN
TIEN  METHODS FOR INCREASING CIRCULATING PLATELETS FOR COLLECTION
      AND CRYOPRESERVATION USING THROMBOPOIETIN COMPOSITIONS
TIFR  PROCEDES D'AUGMENTATION DE PLAQUETTES CIRCULANTES POUR
      PRELEVEMENT ET CRYOCONSERVATION AVEC DES COMPOSITIONS DE
      THROMBOPOIETINE
AG    Gowshall,  Jonathan  Vallance
          AGA: FORRESTER & BOEHMERT, Pettenkoferstrasse 20-22, 80336
               Muenchen,  DE
IN    VADHAN-RAJ  S
          INO: VADHAN-RAJ,  Saroj
          INA: 21 Harbor View Drive, Sugarland, TX 77479, US
PA    -
          PAO: BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
          PAA: Office of General Council, 201 West 7th Street,
               Austin,  Texas  78701,  US
ADT   EP 1146895 A2 EP 2000-913278 20000128; EP 1146895 A2 WO 2000-
      US2173  20000128
APTS  2000EP-000913278;  2000WO-US0002173
FDT   EP 1146895 A2 Based on WO 2000044398 A
PRAI  US 1999-239442 19990128; US 1999-244370 19990204
PRTS  1999US-000239442;  1999US-000244370
IC    ICM A61K038-19
      ICS A61K035-12;  A61P007-00
IIC   IICM      A61K038-19
      IICS      A61K035-12;  A61P007-00
ABEN  The present invention relates generally to the fields of
      platelet production in a patient and cryopreservation of
      platelets isolated from a patient. More particularly, it
      concerns transfusion of autologous of allogeneic cryopreserved
      platelets into a patient to prevent or manage
      thrombocytopenia.
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Member(0003)
PI   JP 2002535373 W  20021022 (200301)  JA 235    A61K038-22
ADT  JP 2002535373 W JP 2000-595700 20000128; JP 2002535373 W WO
     2000-US2173 20000128
APTS 2000JP-000595700; 2000WO-US0002173
FDT  JP 2002535373 W Based on WO 2000044398 A
PRAI US 1999-239442 19990128; US 1999-244370 19990204
PRTS 1999US-000239442; 1999US-000244370
IC   ICM A61K038-22
     ICS A61K009-19; A61K031-282; A61K031-675; A61K031-704;
         A61K035-14; A61K045-00; A61P007-00; A61P035-00
IIC  IICM     A61K038-22
     IICS     A61K009-19; A61K031-282; A61K031-675; A61K031-704;
              A61K035-14; A61K045-00; A61P007-00; A61P035-00

Member(0004)
PI   EP 1146895    B1 20031112 (200380)  EN         A61K038-19
TIDE ERHOeHUNG VON ZIRKULIERENDEN PLATTCHEN MIT
     THROMBOPOIETINZUSAMMENSETZUNGEN
TIEN THROMBOPOIETIN COMPOSITIONS FOR INCREASING CIRCULATING
     PLATELETS
TIFR AUGMENTATION DE PLAQUETTES CIRCULANTES AVEC DES COMPOSITIONS
     DE THROMBOPOIETINE
AG   Gowshall, Jonathan Vallance
         AGA: FORRESTER & BOEHMERT, Pettenkoferstrasse 20-22, 80336
              Muenchen, DE
IN   VADHAN-RAJ S
         INO: VADHAN-RAJ, Saroj
         INA: 21 Harbor View Drive, Sugarland, TX 77479, US
PA   -
         PAO: BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
         PAA: Office of General Council, 201 West 7th Street,
              Austin, Texas 78701, US
ADT  EP 1146895 B1 EP 2000-913278 20000128; EP 1146895 B1 WO 2000-
     US2173 20000128
APTS 2000EP-000913278; 2000WO-US0002173
FDT  EP 1146895 B1 Based on WO 2000044398 A
PRAI US 1999-239442 19990128; US 1999-244370 19990204
PRTS 1999US-000239442; 1999US-000244370
IC   ICM A61K038-19
     ICS A61K035-12; A61P007-00
IIC  IICM     A61K038-19
     IICS     A61K035-12; A61P007-00
CLMDE Verwendung einer Zusammensetzung umfassend TPO
      (Thrombopoietin) zur Herstellung eines Medikaments zur
      Behandlung eines Menschen, der eine Thrombozytopenie oder ein
      Risiko dafuer aufweist, wobei die Behandlung die Schritte
      umfasst von: (a) Verabreichung eines Mittels an einen
      Menschen, das fruehe-Nadir Thrombozytopenie verursachen kann;
      und  (b) Verabreichung einer oder mehrerer vorbereitender
      Dosen einer Zusammensetzung umfassend TPO an den Menschen, vor
      der Verabreichung des Mittels.
CLMEN Use of a composition comprising TPO (thrombopoietin) for the
      manufacture of a medicament for treating a human having or at
      risk of thrombocytopenia, wherein the treatment is to comprise
      the steps of: (a) administration to a human of an agent which
      can cause early-nadir thromobocytopenia; and  (b)
      administration to the human of one or more priming doses of a
      composition comprising TPO prior to administering the agent.
CLMFR Utilisation d'une composition comprenant de la TPO
      (thrombopoietine) pour la fabrication d'un medicament destine
      a traiter un humain presentant ou risquant de presenter une
      thrombocytopenie, dans laquelle le traitement doit comprendre
      les etapes consistant a: (a) administrer a un etre humain un
      agent qui peut provoquer une thrombocytopenie a nadir precoce;
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      et   (b) administrer a l'etre humain une ou plusieurs doses
      d'amorcage d'une composition comprenant de la TPO avant
      l'administration de l'agent.

Member(0005)
PI    DE 60006487   E  20031218 (200407)  DE
PA    (TEXA-C) UNIV TEXAS SYSTEM
          PAA: US
ADT   DE 60006487 E DE 2000-60006487 20000128; DE 60006487 E EP
      2000-913278 20000128; DE 60006487 E WO 2000-US2173 20000128
APTS  2000DE-600006487; 2000EP-000913278; 2000WO-US0002173
FDT   DE 60006487 E Based on EP 1146895 A; DE 60006487 E Based on WO
      2000044398 A
PRAI  US 1999-239442 19990128; US 1999-244370 19990204
PRTS  1999US-000239442; 1999US-000244370

Member(0006)
PI    EP 1374890    A2 20040102 (200409)  EN          A61K038-19
TIDE  Thrombopoietinzusammensetzungen zur Verhoehung von
      zirkulierenden Plaettchen
TIEN  Thrombopoietin compositions for increasing circulating
      platelets
TIFR  Compositions de thrombopoietine pour l'augmentation de
      plaquettes circulantes
AG    Gowshall, Jonathan Vallance
          AGA: Forrester & Boehmert, Pettenkoferstrasse 20-22, 80336
               Muenchen, DE
PA    (TEXA-C) UNIV TEXAS SYSTEM
          PAO: BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
          PAA: Office of General Council, 201 West 7th Street,
               Austin, Texas 78701, US
ADT   EP 1374890 A2 Div Ex EP 2000-913278 20000128; EP 1374890 A2 EP
      2003-21505 20000128
APTS  2000EP-000913278; 2003EP-000021505
FDT   EP 1374890 A2 Div ex EP 1146895 A
PRAI  US 1999-239442 19990128; US 1999-244370 19990204
PRTS  1999US-000239442; 1999US-000244370
IC    ICM A61K038-19
      ICS A61K035-12; A61P007-00
IIC   IICM     A61K038-19
      IICS     A61K035-12; A61P007-00
ABEN  The present invention relates generally to the fields of
      platelet production in a patient and cryopreservation of
      platelets isolated from a patient. More particularly, it
      concerns transfusion of autologous of allorgeneic
      cryopreserved platelets into a patient to prevent or manage
      thrombocytopenia.
CLMEN A method for treating a mammal having or at risk of
      thrombocytopenia, comprising the steps of: (a) administering
      to a mammal an agent which can cause thromobocytopenia; and
      (b) administering to the mammal one or more priming doses of a
      composition comprising TPO prior to administering the agent;
      and  (c) admininstering to the mammal one or more post-doses
      of a TPO composition after administering the agent.
```

4.6 *DWPI First View*[SM]

While the Thomson Scientific value-added information described in the previous sections is being created, you can get an early look at for the latest patent documents using *Derwent World Patents Index First View*[SM] *(DWPI First View)* — the fast-alerting companion file to *DWPI*.

DWPI First View contains previews of the latest published patent documents in advance of their inclusion in *Derwent World Patents Index*. The *DWPI First View* file contains enhanced bibliographic data for all new patent documents, along with original titles, abstracts, technical drawing images, and English-language abstracts for patents from China, Japan, Korea, Taiwan, and Russia.

As soon as the complete value-added information is available, the patents are promoted from *DWPI First View* into the main *DWPI* file. As a result, *DWPI First View* is a rolling file which is continuously updated to contain only those patents not yet in *DWPI*.

By searching *DWPI First View* in combination with *Derwent World Patents Index*, you can maximize your retrieval of important patent information and ensure that you get the complete picture of worldwide patenting activity. *DWPI First View* is available on Dialog, STN and on Questel.Orbit.

DWPI First View Patent Coverage

Patent documents are included in *DWPI First View* when they fall into one of the following categories:

- Basic patents which have not yet been added to the main DWPI file.
- Equivalent patents where the corresponding Basic has not yet been released into *DWPI*.
- Equivalent patents where the corresponding Basic has already been added to *DWPI*. This can occur where production schedules mean that the patents in question are not available in time for inclusion in the latest *DWPI* update. Instead, they are picked up in the corresponding *DWPI First View* update and will typically move into the main *DWPI* file in the next update.

DWPI First View Record Content

Each record in *DWPI First View* is uniquely enhanced to help you easily locate and understand the information. *DWPI First View* records include:

- Searchable text.
- English-language author title and abstract for major authorities, including WO, US, EP, JP, CN, KR, RU, TW.
- Flag to indicate original or machine-translated abstract.
- Technical drawings.
- Front page drawing image for most authorities*.
- Classifications.
- IPCs.
- US Classes (US).
- Bibliographic data.
- Patent Number, Publication Date.
- Patent type (basic, equivalent).
- Language, Number of pages.
- Standardized patent assignee name and patent assignee code.
- Inventors**.
- Attorneys***.
- Application details, Filing details, Priorities.
- Designated States (EP, WO).

*basics only

**Excludes Japan

***US only

4.7 Other Thomson Scientific Patent Descriptions

Much of the patent data handled by Thomson Scientific contains references to the year, be that as an actual date or as a serial number such as an application number or accession number, which contains reference to the year. Until the arrival of year 2000, these years had always been represented by two-digits i.e. the '19' in 1998 was ignored.

At the approach to the year 2000, Thomson Scientific, along with many of the patent offices, changed all dates and numbers containing year references to four-digit years. Examples of data elements affected are publication and application dates, application numbers, accession numbers, priority data and the Thomson Scientific update. Treatment of patent numbers containing a year element was handled by the individual patent offices.

Thomson Scientific changed all two-digit year references to four-digit year references. In our online databases the backfile was also converted to the YYYY format, but any print or CD products records issued prior to 2000 will still contain a two-digit year.

Patent Number

Thomson Scientific inputs the two-character WIPO country code of the publishing country, followed by the serial number (up to ten characters), and the status code indicating the document type or publication stage. On Thomson Scientific printed products, patent numbers can be preceded by the following symbols; an equals sign (=) for true equivalents; a hash sign (#) for non-convention equivalents; an asterisk (*) for basics. Prior to week 199216, a slash (/) preceding the patent number indicated a reissued abstract. In the online files, the first member of the family is the basic; and members that follow are equivalent.

Priority Application Numbers and Dates

Table 12 The different priority application numbers and dates

The Latest Priority	Most patents claim only a single priority, in which case there can be no confusion. However, for the 5% of cases where more than one priority is claimed all priorities must match for a patent to be equivalent. Prior to week 199216, the effective priority used for determining family relationships was the latest only. The priority takes the form of date (1990.10.17), country code (JP=Japan) then priority application number to six or seven characters (277620). Since 2000, the date contains a four-digit year, rather than a two-digit year. In our online files all date formats have been modified to contain four-digit years, but in print and CD products records issued prior to 2000 will still contain a two-digit year.
The Earliest Priority	Present in the abstract headings for multiple priority cases, the earliest priority has the same format as the latest priority. For US continuations-in-part, the original application is regarded as an earlier priority provided that it was not based upon a foreign application. For continuations not based on a foreign priority, from 198601, the continuation application is regarded as an earlier priority and the original filing (parent) effective priority to determine equivalents. For divisional application, only the earliest priority is used for determining equivalency.
Priorities in the Headings of the Alerting Abstracts (chemical)	The latest, or only, priority is given directly after the patentee and is followed by the earliest priority in brackets, when present. Alerting abstracts carry the filing date and application number of the current document and any intermediate priorities at the start of the abstract.
Priorities in the Headings Documentation Abstracts	The documentation abstract has the patentee code and priority date at the top right hand corner of the heading. For single priorities, the full priority is given in standard format at the start of the indented line of the heading. When two priorities are present the indented line gives the full latest priority followed by the application country and number of the earliest priority, in brackets. When more priorities are cited, they are given under the heading "Additional Data."
Priorities in Industry and Technology Profile Abstracts	The priorities in the ITP abstracts are given in the footer at the end of the abstract. The latest priority is listed first, followed by the earliest priority when claimed.

Utility Models

Utility models are registered rights for technical inventions, designed to prevent others from commercially exploiting the protected inventions (without authorization) for a limited period of time. They supplement the patent system by providing protection for innovations that are not regarded as inventive enough to warrant a patent grant. In some countries, patents referred to as "petty patents" or "innovation patents" are similar in concept to utility models.

The main differences between utility models and patents are outlined below:-

- While "novelty" and an "inventive step" are required absolutely to file a patent, the level of inventiveness required for the granting of a utility model is generally lower.
- The term of protection for utility models is shorter than for patents, generally 6 to 10 years, without the possibility of extension or renewal.
- Utility model applications are subjected to state-of-the-art searches but not usually to full substantive examinations. This means that the registration process is significantly simpler and faster.
- Utility models can be obtained more quickly and more economically than patents.
- In some countries, utility model protection can only be obtained for certain technological fields and only for products but not for processes.
- Of the countries covered in *DWPI*, only the following offer utility model protection : AT, AU, BE, BR, CN, CZ, DK, ES, FI, FR, DE, HU, IE, IT, JP, MX, NL, PH, PT, KR, RU, SK.
- German (DE) utility models (Gebrauchsmuster) are the only "U" type patent kinds (U1, U8 & U9) currently included in *DWPI*. However, also included as part of the overall *DWPI* patent coverage are French (FR) Certificat d'Utilite (kind A3), Australian (AU) Innovation Patents (kinds A4 & B3), Irish (IE kind B3) short-term (10-year) patents and Dutch (NL kind C6) 6-year petty patents.

DWPI coverage of DE utility models began in mid-1996. The first utility models covered had the registration date (Eintragungstag) 23/05/1996, with the publication date (Bekanntmachung) following 6 weeks later. A typical week's coverage will comprise approx. 400 utility models of which about 90% will be basic. The typical subject matter coverage for these utility models breaks down as roughly 70% GMPI, 20% EPI and 10% CPI.

A detailed description of the DE (U) patent number and application number formats, including the New Law formats introduced in 2004, is given on pages ?? to 97.

Utility model applications from any country offering such protection may appear as +priorities on patents covered in *DWPI*.

Application Numbers

All national application numbers and dates for all patents entering *DWPI* since 1992 (update 199216) have been included as part of the patent family record.

Prior to 1992 not all applications numbers were included as part of the patent records, particularly for patents containing foreign priority data. However, from 1984 (update 198409) onwards application numbers are available online for the majority of countries included in *DWPI*.

Accession Numbers

All new basics are assigned unique accession numbers to indicate the order in which they are added to *DWPI*. Each number comprises a year element, a hyphen and a six-digit serial but the format has changed slightly over time as described below. The year element of the accession number must be searched using a four digit format.

Currently each year numbering begins at 000001 with the new year prefix. This format has been in use since *DWPI* update 198327. At *DWPI* update 198327, re-numbering began at 1983-700001.

From *DWPI* update 197001 to 198327 chemical basics were assigned accession numbers that indicated the year of entry by a letter at the end of the number rather than the four-digit year prefix, e.g. 45982C. To standardise the format of these accession numbers online, the four-digit year and a hyphen have been inserted before the old format number, e.g. 1980-45982C.

For electrical and engineering basics in this period, a letter was also added to the beginning of the number to distinguish them from chemical records, e.g. 1975-C7954W.

The following letters were used to indicate the year:

Table 13 Accession numbers – Post 1969 assigned letters indicating the year

Letter	Year	Letter	Year	Letter	Year
R	1970	W	1975	C	1980
S	1971	X	1976	D	1981
T	1972	Y	1977	E	1982 (*DWPI* updates 198201-198246)
U	1973	A	1978	J	1982 (*DWPI* updates 198247-198252)
V	1974	B	1979	K	1983 (*DWPI* updates 198301-198326)

Prior to 1970, accession numbers ended in a letter indicating the printed service where the record appeared. These letters have been assigned artificial year numbers that have been added as prefixes to the accession numbers as follows:

Table 14 Accession Numbers – Pre-1969 assigned letters indicating the year

Letter	Service	Year
F	FARMDOC (*DWPI* Section B)	1966
G or H	AGDOC (*DWPI* Section C)	1967
P or Q	PLASDOC (*DWPI* Section A)	1968
Z	'Pre-*CPI*' Data	1969

The pre-*CPI* data has not appeared in any printed journal and the pre-1970 accession numbers are not associated with *DWPI* updates - the online file shows these updates as '00'.

Secondary accession numbers have been assigned to all records with abstracts since the start of 1983 (*DWPI* update 198301) for the purpose of identifying records in microfilm and CD-ROM series.

Secondary accession numbers of CPI documents (*DWPI* chemical sections A to M and labeled XRAM) are indexed with a "C" before the year, i.e. CYYYY-NNNNNN. Secondary accession numbers of records classified into the electrical and engineering sections (*DWPI* sections P, Q, and S-X and labeled XRPX) are indexed with an "N" before the year, i.e. NYYYY-NNNNNN. If a record is classified into both chemical and non-chemical sections, it is assigned two document numbers, one in each series.

If a basic is reissued, a new secondary accession number is added within the reissue update. Also if an abstract is added to a record that originally did not have an abstract, a secondary accession number is then added.

DWPI Update

The *DWPI* Update indicates when a particular patent was added to the database and displays in the patent family table. All dates are in the four-digit year format (YYYY).

Patentee

To standardise company names, Thomson Scientific assigns a standard four letter code to approximately 21,000 companies worldwide. These codes retrieve the worldwide holdings of a company and its easily recognisable subsidiaries. Smaller companies are assigned non-standard company codes which are usually based on the four letters of the name but are not unique to any one company. Non-standard codes are distinguished by a following hyphen (-). For Russian companies and Institutes, a code is assigned which ends with an equals (=) sign. Private individuals who retain the ownership of their invention are assigned a code which ends with a slash (/) mark.

For retrieval purposes it is important to note the different formats of codes which exist in Thomson Scientific indexes and online files over different periods:

Table 15 Patentee Codes – Format of codes from 1974 (update 197403) to date

ABCD	Standard companies and all pre-1970 companies
ABCD- or ABC-N	Non-standard companies (except "Soviet")
ABCD= or ABCD-R	"Soviet non-standard institutions from update 197517
ABCD/ or ABCD-1	Individuals

Table 16 Patentee Codes – Format of codes from 1970-1974 (update 197402)

ABCD	Standard companies and all pre -1970 companies
ABC- or ABC-N	All non-standard companies
ABC/ or ABC-1	Individuals

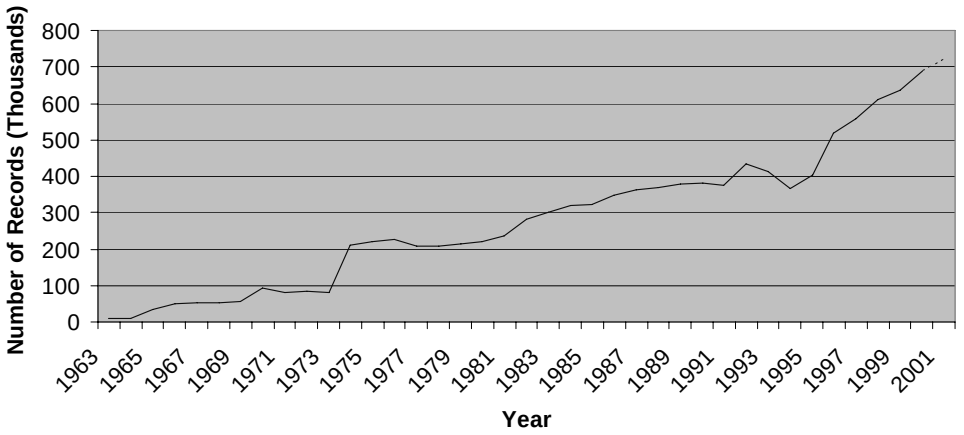
Table 17 Patentee Codes – Format of codes pre-1970

ABCD	All patentees (companies and individuals)

Both the actual patentee name and the company code appear in all records. Patentee names are indexed up to 24 characters prior to Thomson Scientific week 199216; and were expanded to 40 characters after Thomson Scientific week 199216.

The assignment of company codes is explained in more detail in the Patentee Code User Manual which lists all of the "standard" company codes and the companies and subsidiaries linked to them. A detailed explanation also can be obtained on the effective dates of patentee codes and how they can be time ranged. A Patentee Code look up facility is also available on the Thomson Scientific web site.

Figure 13 History of Derwent World Patents Index



1963	Pharmaceutical patents only
1965	Agrochemical patents added
1966	Plastics and polymer patents added
1970	All chemistry patents covered
1974	All technology covered

Inventors

Since Thomson Scientific update 197804, inventor names have been recorded from the basic specification for all countries. Up to 10 characters of the surname were indexed, followed by a space, and up to three initials. The total number of names indexed during this time period was a maximum of three. This was increased in 1980 to a maximum of eight inventors (with the exception of Soviet basics which retained a limit of three inventor names).

From Thomson Scientific update 199216, the number of characters indexed increased to up to 30 characters, followed by a space, and up to three initials. The limit on the total number of names indexed was removed (with the exception of Russian names), and inventor names were also included for equivalents.

Citations

Examiner citations have been included in ***Derwent World Patents Index*** from 1978-1997 for EP and PCT patents only. Where no references are cited, the entry "No-Citns." is provided. In cases where no search report is available, the entry "No-SR.Pub" is provided. Also included are delayed search reports (EP-A3 documents) and supplementary search reports (EP-A4 documents) as they became available.

Examiner citations from the six major patenting authorities: DE, EP, GB, JP, US, WO, are included in *Patents Citation Index*. Prior to Thomson Scientific update 199741 both examiner and inventor citations were covered from 16 patent-issuing authorities. See table 16 for citation coverage in *Patents Citation Index*.

Table 18 Citation coverage in Patents Citations Index

Country	Code	Citations Coverage
Austria	AT	Examiner and inventor citations May 1994 - May 1997 (Chemical Basics)
Australia	AU	Examiner and inventor citations May 1994 - May 1997 (Basics only)
Belgium	BE	Examiner and inventor citations May 1994 - May 1997
Canada	CA	Examiner and inventor citations May 1994 - May 1997 (Basics only)
Germany	DE	Examiner and inventor citations May 1994 - May 1997
European Patent Office	EP	Examiner citations from 1978. Inventor citations May 1994 - May 1997
France	FR	Examiner and inventor citations May 1994 - May 1997
Japan	JP	Examiner citations from May 1994. Inventor citations May 1994 - May 1997 (Chemical and electrical examined patents only)
Netherlands	NL	Examiner and inventor citations May 1994 - May 1997
New Zealand	NZ	Examiner and inventor citations May 1994 - May 1997 (Chemical and electrical basics only)
Patent Cooperation Treaty	WO	Examiner citations from 1978. Inventor citations May 1994 - May 1997
South Africa	ZA	Examiner and inventor citations May 1994 - May 1997 (Chemical and electrical basics only)
Sweden	SE	Examiner and inventor citations May 1994 - May 1997
Switzerland	CH	Examiner and inventor citations May 1994 - May 1997
United Kingdom	GB	Examiner citations from May 1994. Inventor citations May 1994 - May 1997
United States	US	Examiner citations from 1973. Inventor citations May 1994 - May 1997

Designated States

States in which applicants have requested their invention be protected by means of a European or PCT application are given as part of the heading details. States in which the invention will be protected by a national patent are given in parentheses preceded by a 'N' e.g. N (GB JP US) and those where protection will be via a European or other regional patent are given in parentheses preceded by an 'R' e.g. R (DE FR GB SE). Prior to update 198727, the letter 'E' was used for the European and other regional states.

In the case of PCT applications, regional states comprise European and OAPI states and were included by Thomson Scientific in alphabetical order of the Country codes until update 198726. From 198727, when one or more OAPI states are designated this is indicated by the code OA alone, which appears after the European states e.g. R (BE CH FR IT SE OA).

Language Indicator

Up to 199216, a single-letter code was applied which indicated the language of the EP/PCT patent specification. The codes were: E = English, F = French, G = German, J = Japanese, R = Russian, and O = Others.

From Thomson Scientific update 199216, language codes are indexed also for specifications that publish in a language other than the major language. This can happen in countries that accept documents in more than one language. For example, Canadian documents are expected to publish in English, however, approximately 5% publish in French. In this case, a language indicator of "Frn" would be indexed in the online files. The codes are:

Table 19 Language indicators used in Derwent World Patents Index

Code	Language	Code	Language
AFR	Afrikaans	HUN	Hungarian
ARB	Arabic	ITL	Italian
CHN	Chinese	JPN	Japanese
CZH	Czech	KOR	Korean
DAN	Danish	MAO	Maori
DUT	Dutch	NOR	Norwegian
ENG	English	POR	Portugese
FIN	Finnish	ROM	Romanian
FLM	Flemish	RUS	Russian
FRN	French	SLK	Slovakian
GER	German	SPN	Spanish
HEB	Hebrew	SWE	Swedish
HIN	Hindi		

Since 198701, for West Germany, European, Japanese and United Kingdom documents based on PCT patents, the language of the original PCT documents is indicated.

4.8 Thomson Scientific Classification and Indexing

Thomson Scientific Classification and Subject Coverage

Thomson Scientific categorises patent documents using a simple classification system designed for all technologies. This unique classification system is consistently applied to all patents by Thomson Scientific subject experts, enabling effective and precise searching in a particular area of technology. Patents are initially divided into three broad areas: Chemical; Engineering; and Electronic and Electrical Engineering. Each broad area is further divided into sections which are further divided into classes. Each class consists of the Section letter; followed by two digits.

Thomson Scientific may apply more than one class to any particular abstract, to ensure that all major areas of technical interest are classified. For instance, a polymer composition used in oil recovery will be classified in both A and H. The complete Thomson Scientific classification system is provided as Appendix 6 of this User Manual. The main divisions of the Thomson Scientific classification system are as follows:

Table 20 Subject coverage within the Chemical division

Section	Subject coverage
A	Plastics and Polymers (Plasdoc)
B	Pharmaceutical (Farmdoc)
C	Agricultural Chemicals (Agdoc)
D	Food, Detergents, Water Treatment and Biotechnology
E	General Chemicals (Chemdoc)
F	Textiles and Paper-Making
G	Printing, Coating, Photographic
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives and Protection
L	Refractories, Ceramics, Cement and Electro(in)organics
M	Metallurgy

Table 21 Subject coverage within the Engineering division

Section	Subject coverage
P	General
Q	Mechanical

Table 22 Subject coverage within the Electronic and Electrical division

Section	Subject coverage
S	Instrumentation, Measuring and Testing
T	Computing and control
U	Semiconductors and Electronic Circuitry
V	Electronic Components
W	Communications
X	Electric Power Engineering

Thomson Scientific subject coverage has increased with time. The graph on page 193 shows how Thomson Scientific's coverage has expanded to its current system, and the number of inventions added annually.

Beginning in 1963, Thomson Scientific launched its FARMDOC service covering pharmaceutical patents. This now corresponds to Thomson Scientific Section B. Coverage increased in 1965 to include patents relevant to agriculture with the launch of the AGDOC service (now Section C), and further still in 1966 to include plastics and polymers (the PLASDOC Service, now Section A). In 1970, Thomson Scientific expanded its coverage of chemical and chemically-related patents, and thus created the *Chemical Patents Index* which includes Thomson Scientific Sections A through M, as shown above. Since 1974, Thomson Scientific has included patents irrespective of subject (for all countries except Japan), and these are divided into three major subject areas:

Table 23 Three major subject areas of Thomson Scientific's patent coverage

CPI	Chemical Patents Index	Sections A-M
EngPI	Engineering Patents Index	Sections P and Q
EPI	Electronic/Electrical Patents Index	Sections S-X

These subject areas form a database that is fully searchable electronically via ***Derwent World Patents Index***. For example X22 is the Thomson Scientific class designation for Automotive Electrics and C04 is the Thomson Scientific class for all Chemical Fertilisers. When used in combination with other search terms e.g. a Keyword Search, these classes allow you to restrict your search precisely and effectively to the relevant subject area. For example, the otherwise ambiguous word WARN can be combined with Thomson Scientific class X22 (Automotive Electrics) to retrieve only those references to automotive warning devices.

Thomson Scientific Manual Codes

Chemical Patents Index (CPI)

Thomson Scientific Manual Codes for chemical technologies have been applied over a period of more than 35 years, having been first introduced in 1963. Chemical Manual Codes are applied to the inventive/significant features of the invention using the Documentation Abstract as the source document. They are assigned by teams of Thomson Scientific analysts who have been specifically trained in the application of the codes. The analysts have specialist knowledge in each of the areas of technology with which they are concerned. There are approximately 10,500 codes.

The CPI Manual Codes are searchable online in ***Derwent World Patents Index***.

Electrical Patents Index (EPI)

Thomson Scientific Manual Codes for electrical technologies have been applied since 1980 (198018). Similar to the CPI Manual Codes, they provide an improved patent information alerting service for users whose interests lie in the electrical field. The Manual Codes are applied to reflect the Novelty (i.e. what is new in the invention which brings about the desired advantage or benefits) and the application/use of the invention.

The EPI Manual Codes are searchable online in ***Derwent World Patents Index***. There are approximately 10,500 codes available to search from the first update of 2005.

Thomson Scientific Chemical Structure Indexing

Thomson Scientific chemical structure indexing is an important tool for searchers because it is the only indexing system available for comprehensively searching the full spectrum of compounds claimed in most of the world's currently active chemical patents. The system is applied to chemicals from the Polymers & Plastics, Pharmaceuticals, Agrochemicals and General Chemical Compounds technologies (or Sections A, B, C and E, respectively). The system has evolved since its beginnings in the early 60s, and is available for searching via the ***Derwent World Patents Index*** online.

The indexing describes both single and Markush compounds found in patent specifications on the basis of the structural fragments found in these compounds. Thomson Scientific indexes all compounds disclosed or claimed in the specification. Each patent is read carefully to find the widest chemical disclosure, that is, the greatest range of compounds the patent could exclude others from making, using or selling. All possible chemical permutations covered by the patent are separated into appropriate chemical fragments, and these fragments are then translated into chemical codes.

In 1998, Thomson Scientific and the French Patent Office (INPI) combined their separate Markush files into the **Merged Markush Service** (MMS), managed by INPI and are indexing both forwards and backwards in time. This is a more precise indexing system available for Sections B, C and E, for graphical chemical structure searching. Patents in these areas of technology have been graphically coded and indexed rather than by chemical fragments. Markush DARC search language can be used to search precisely for both specific and Markush chemical structure references which have been indexed in ***Derwent World Patents Index***, dating back to 1987. This new system gives the searcher more power and flexibility in the retrieval of specific and generic chemical compounds. The system is available only on Questel.Orbit and is open to all Thomson Scientific searchers, without the need for CPI subscription.

Thomson Scientific has developed an easy to use tool for searching chemical structures online called Markush TOPFRAG. Markush stands for Markush structure; and Topfrag stands for Topological Fragmentation. Markush Topfrag allows the searcher to create substructures that utilise free sites and the general chemical terms that are found in patents, e.g. alkyl, heterocycle and halogen.

The *Chemistry Resource* was launched in 1999 and currently contains over 600,000 structure records. The *Chemistry Resource*, available on STN, is a central indexing system for chemical information in Thomson Scientific online files. It has been implemented as an index to *Derwent World Patents Index*, replicating, and running in parallel to, the current chemical indexing for all patents indexed since its launch. Based on chemical structures, the *Chemistry Resource* can be interrogated in the universal language of chemistry, allowing simple access to the Thomson Scientific online bibliographic files by both specialist and non-specialist alike

In early 1993, Thomson Scientific enhanced the indexing for Section A. The system is based on the hierarchical structure existing in the previous system, however, specific compounds are now represented by Specific Compound Numbers; generic codes have been incorporated within the hierarchical structure to retain the ability to search generically; and chemical aspects have been introduced to provide the ability to create searches by combining chemical functional features. Thus, the Enhanced Polymer Indexing System has been designed for both specific and generic searching of compounds encountered in the polymer area.

Polymer and chemical structure coding is initially assigned to online records that have a basic from a major patent-issuing authority and for which an abstract is published. Basics from other authorities and certain Japanese documents, which do not have abstracts, do not have the coding applied until the first appearance of an equivalent from one of the major patent-issuing authorities. Section 3 provides details of whether chemical indexing is applied to a particular country's specification.

4.9 Thomson Scientific Patents Services

Thomson Scientific is the world's leading patent and scientific information provider.

Thomson Scientific helps Fortune 500 companies stay ahead of their competitors by providing them with key technical, scientific and business information drawn from patents, research journals and conference proceedings.

Thomson Scientific delivers essential patent, industry standards and specifications, scientific and technical information that enhance our customers' ability to achieve world-class research and business results.

The major Thomson Scientific value-add patent portfolio includes:

- *Derwent World Patents Index®*
- *Derwent World Patents Index First View℠*
- *Patents Citation Index™*
- *Derwent Innovations Index℠*
- *Tailor-Made Patents Profiles*
- *Industry & Technology Patents Profiles*
- *Patents Preview*
- *Alerting Abstracts*
- *Documentation Abstracts*
- *GENESEQ™*
- *GENESEQ™ FAST Alert*
- *Chemistry Resource*
- *Merged Markush Service*

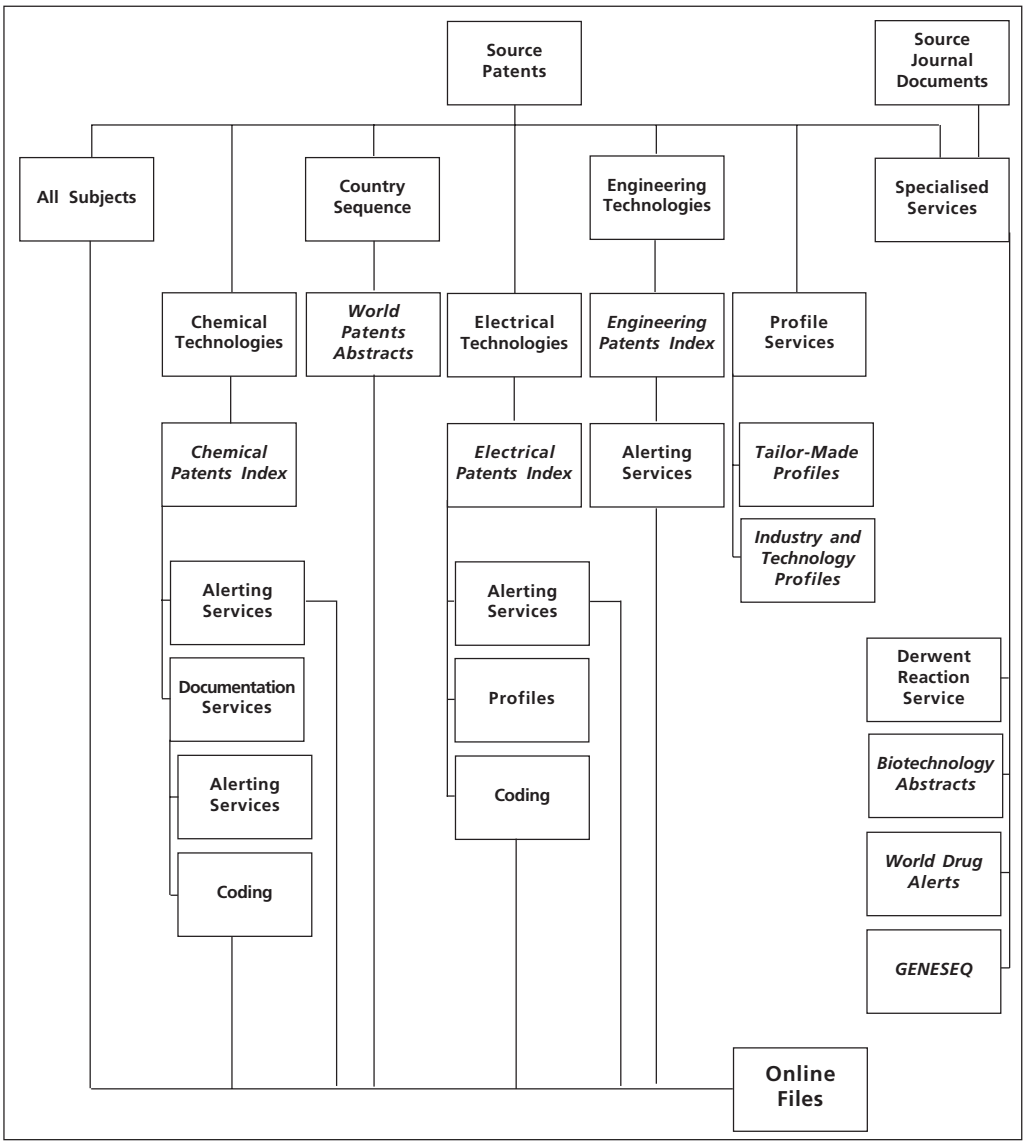
In addition, there are several products containing a mix of patent and nonpatent [journal] source documents.

You can access our value-add patent databases through various Web platforms including *Delphion®* and *ISI Web of Knowledge℠*, plus via online hosts such as Dialog, Questel.Orbit, STN and Westlaw.

We can also custom build information solutions for you. Access is by annual subscription or pay-as-you-go, depending on the product or service. A complete range of customer support services are also available to assist our users in getting the best possible use of our products.

For further product information, please contact your local Thomson Scientific office.

Figure 14 Thomson Scientific patents products overview



4.10 Training and Support

Getting Started – with the Thomson Scientific Online

There are just six simple steps to getting started with the Thomson Scientific patent portfolio Online:

- Contact your local Thomson Scientific office for advice.
- Make sure you have the correct hardware and software.
- Choose the online host(s) most appropriate to your information needs.
- Obtain access to your local telecommunications network.
- Obtain an ID and a password from the host(s) of your choice.
- Enroll in the Thomson Scientific Online Training Programme.

Thomson Scientific Help Desk Assistance

Expert advice and support is available via our Customer Technical Support staff, to provide a fast and efficient response to all your enquiries. Our experienced Technical Support staff has an in-depth knowledge of the products and services offered by Thomson Scientific and are familiar with the various command languages.

From general customer queries through to technical questions, the Technical Support department is there to help you.

Contact your local Help Desk by phone, fax or email or use the following Feedback Form on the Thomson Scientific Web site:
scientific.thomson.com/support/techsupport

Your message will automatically be directed to your nearest Support Center.

Customer Training and End User Education

Our extensive training programme will help you make the best of our products - whatever your current level of knowledge or expertise. Your account manager will be able to advise you of your entitlement to training.

Thomson Scientific provides a selection of face-to-face and Web-based training for both novice and advanced users of our databases. Our expert trainers can help you get more from your information resources.

Thomson Scientific is pleased to offer web-based training programs to help you get the best results from our products. To attend a class all you need is a computer with Internet access and a phone. To view a list of upcoming training classes, visit the following web page:
scientific.thomson.com/support/training/webtraining/

In addition to our public sessions, we provide customized training designed to meet the needs of your organization and help you get the best results from our products. Please contact the Thomson Scientific Training team in your region to request training or discuss your training needs with one of our experts: **http://scientific.thomson.com/support/training/contacttraining/**

With one of our expert trainers visiting your company or organization, you and your colleagues can quickly learn the most efficient and effective ways of using Thomson Scientific databases. The training course(s) or presentation(s) can be precisely tailored to meet your needs.

To help you search our online databases effectively Thomson Scientific provides a comprehensive range of User Guides, all written by specialists in their field.

Many of these guides are available on the Thomson Scientific Web site (**scientific.thomson.com/support/userguides/**) as downloadable .pdf files, giving you instant access to the very latest editions.

Thomson Scientific Search Services

Our expert searchers have over 120 years combined experience in extracting key information from the world's information databases. They possess the skills and know how to quickly and effectively search multiple databases to find precisely what you need. Whether examining our unrivalled, global patents database - *Derwent World Patents Index®* (*DWPI*), using our proprietary indexing, or other relevant information rich databases, our searchers are dedicated to providing you with complete and accurate results.

Our Search Services is completely tailored to your specific search needs. Our experts will work with you continuously, making sure they look for and uncover the exact data you require. This partnership, along with our searcher's extensive searching expertise, is what makes Thomson Scientific Search Services the pre-eminent source for research assistance.

Thomson Scientific understands that you want research information fast and in a format that best suits your needs. This is why we deliver your precise search results in print, on diskette, by fax, or via the Internet in three days or less (depending on search complexity). You decide how and when you want your information, and we'll deliver it. It's that simple.

Rely on our global search expertise for:

- Patentability/Novelty
- Validity/Infringement
- Patent citation
- Patent family/English language equivalents
- State-of-the-art
- Patent assignee
- Current awareness

Thomson Scientific Search Services covers these industries:

- Pharmaceutical
- Chemical
- Electrical
- Polymer
- Biotechnology
- Engineering

Our experts will also conduct manual searches for general and mechanical data.

For further information on this important Thomson Scientific service, or to request a search or quotation please go to: scientific.thomson.com/products/searchservices/

Thomson Scientific Patent Document Delivery

Whatever the patent you are seeking, wherever it has been registered, Thomson Scientific's extensive network of contacts will have the expertise to trace it for you - leaving you to spend time on other projects. Knowing that your search is being undertaken by skilled and dedicated professionals will give you a sense of security that is missing from other patent delivery services.

By using Thomson Scientific you will benefit from:

- Immediate access to a major private collection of international patents, including WO, European, US, UK and Japanese documents
- A global network of contacts to locate otherwise "untraceable" patents
- Experienced patent professionals to carry out your patent copy searches
- Fast and efficient delivery by email, ourier, fax or first-class post.

Legal and Technical Patent Translations

When you wish to study a complete patent document or journal article, which is not in English, we can provide you with a complete translation service. Alternatively, if you require a verified translation for filing purposes we can also provide you with this.

Our technically-qualified translators cover the complete range of scientific, technical and legal disciplines, and are familiar with all areas of patent technology. We regularly prepare high-quality translations of patents for Legal Filing in Japanese, French and German; other languages are also available.

If you do not require a full translation of a patent, we offer comprehensive search facilities allowing for the location and supply of any English-language " Equivalent" filings of foreign language patents (where applicable).

High-quality 'manually-enhanced' machine assisted translations of Japanese patents and Japanese-language WIPO patent documents are also available. These electronically supplied Japanese translations have a faster turnaround and are more cost effective than commissioning a full manual translation.
scientific.thomson.com/products/patenttranslations/

File Histories

Patent File Histories/Wrappers collate all documentation relating to the processing of a specific patent application. They enable detailed tracking of the entire life of a patent from initial application through any amendments to grant, withdrawal, refusal or opposition, allowing you to develop effective arguments for or against patent validity.

Documentation within the file includes the original filed application, priority documents, examination report, communications between the applicant and the patent office/examiner during the application process, any filed opposition to grant and its outcome.

File Histories are essential resources to:

- Uncover references and concessions made during the patent examination process.
- Assist effective evaluation of patent validity.
- Indicate in certain cases, prior art not included in the original patent publication.

scientific.thomson.com/products/filehistories/

5 Appendices

Appendix 1 (A) – World Intellectual Property Organisation (WIPO) Country Codes

Alphabetical listing by *Country Name*

Afghanistan	AF	Cambodia	KH
African Intellectual Property Organization (OAPI)	OA	Cameroon*	CM
		Canada	CA
African Regional Intellectual Property Organization (ARIPO)	AP	Cape Verde	CV
Albania	AL	Central African Republic*	CF
Algeria	DZ	Chad*	TD
Andorra	AD	Chile	CL
Angola	AO	China	CN
Antigua and Barbuda	AG	Colombia	CO
Argentina	AR	Comoros	KM
Armenia	AM	Congo	CG
Australia	AU	Costa Rica	CR
Austria	AT	Côte d'Ivoire*	CI
Azerbaijan	AZ	Croatia	HR
Bahamas	BS	Cuba	CU
Bahrain	BH	Cyprus	CY
Bangladesh	BD	Czech Republic	CZ
Barbados	BB	Democratic People's Republic of Korea	KP
Belarus	BY		
Belgium	BE	Democratic Republic of the Congo	CG
Belize	BZ	Denmark	DK
Benin*	BJ	Djibouti	DJ
Bhutan	BT	Dominica	DM
Bolivia	BO	Dominican Republic	DO
Bosnia and Herzegovina	BA	Ecuador	EC
Botswana	BW	Egypt	EG
Brazil	BR	El Salvador	SV
Brunei Darussalam	BN	Equatorial Guinea	GQ
Bulgaria	BG	Eritrea	ER
Burkina Faso	BF	Estonia	EE
Burundi	BI	Ethiopia	ET

Eurasian Patent Organization (EAPO)	EA	Liechtenstein	LI
European Patent Office (EPO)	EP	Lithuania	LT
Fiji	FJ	Luxembourg	LU
Finland	FI	Madagascar	MG
France	FR	Malawi	MW
Gabon*	GA	Malaysia	MY
Gambia	GM	Maldives	MV
Georgia	GE	Mali	ML
Germany	DE	Malta	MT
Ghana	GH	Mauritania*	MR
Greece	GR	Mauritius	MU
Grenada	GD	Montenegro	ME
Guatemala	GT	Mexico	MX
Guinea	GN	Monaco	MC
Guinea-Bissau	GW	Mongolia	MN
Guyana	GY	Morocco	MA
Haiti	HT	Mozambique	MZ
Holy See (Vatican City State)	VA	Myanmar	MM
Honduras	HN	Namibia	NA
Hungary	HU	Nepal	NP
Iceland	IS	Netherlands	NL
India	IN	New Zealand	NZ
Indonesia	ID	Nicaragua	NI
Iran	IR	Niger*	NE
Iraq	IQ	Nigeria	NG
Ireland	IE	Norway	NO
Israel	IL	Oman	OM
Italy	IT	Pakistan	PK
Jamaica	JM	Panama	PA
Japan	JP	Papua New Guinea	PG
Jordan	JO	Paraguay	PY
Kazakhstan	KZ	Peru	PE
Kenya	KE	Philippines	PH
Kuwait	KW	Poland	PL
Kyrgyzstan	KG	Portugal	PT
Laos	LA	Qatar	QA
Latvia	LV	Republic of Korea	KR
Lebanon	LB	Republic of Moldova	MD
Lesotho	LS	Romania	RO
Liberia	LR	Russian Federation	RU
Libyan Arab Jamahiriya	LY	Rwanda	RW

St. Kitts and Nevis	KN	The Former Yugoslav Republic of Macedonia	MK
St. Lucia	LC	Togo*	TG
St. Vincent and the Grenadines	VC	Tonga	TO
Samoa	WS	Trinidad and Tobago	TT
San Marino	SM	Tunisia	TN
Sao Tome and Principe	ST	Turkey	TR
Saudi Arabia	SA	Turkmenistan	TM
Senegal*	SN	Uganda	UG
Serbia	RS	Ukraine	UA
Seychelles	SC	United Arab Emirates	AE
Sierra Leone	SL	United Kingdom	GB
Singapore	SG	United Republic of Tanzania	TZ
Slovakia	SK	United States of America	US
Slovenia	SI	Uruguay	UY
Somalia	SO	Uzbekistan	UZ
South Africa	ZA	Venezuela	VE
Spain	ES	Vietnam	VN
Sri Lanka	LK	WIPO International Bureau	IB
Sudan	SD	World Intellectual Property Organization (WIPO)	WO
Suriname	SR	Yemen	YE
Swaziland	SZ	Zaire	ZR
Sweden	SE	Zambia	ZM
Switzerland	CH	Zimbabwe	ZW
Syrian Arab Republic	SY		
Tajikistan	TJ		
Thailand	TH		

This is a selective list of country states and other related organizations as per WIPO standard ST.3. It includes all current WIPO member states as of December 2006.

Appendix 1 (B) – World Intellectual Property Organisation (WIPO) Country Codes

Alphabetical listing by 2-letter *country code*

AD	Andorra
AE	United Arab Emirates
AF	Afghanistan
AG	Antigua and Barbuda
AL	Albania
AM	Armenia
AO	Angola
AP	Afican Regional Intellectual Property Organization (ARIPO)
AR	Argentina
AT	Austria
AU	Australia
AZ	Azerbaijan
BA	Bosnia and Herzegovina
BB	Barbados
BD	Bangladesh
BE	Belgium
BF	Burkina Faso
BG	Bulgaria
BH	Bahrain
BI	Burundi
BJ*	Benin
BN	Brunei Darussalam
BO	Bolivia
BR	Brazil
BS	Bahamas
BT	Bhutan
BW	Botswana
BY	Belarus
BZ	Belize
CA	Canada
CF*	Central African Republic
CG	Democratic Republic of the Congo
CH	Switzerland
CI*	Côte d'Ivoire
CL	Chile
CM*	Cameroon
CN	China
CO	Colombia
CR	Costa Rica
CU	Cuba
CV	Cape Verde
CY	Cyprus
CZ	Czech Republic
DE	Germany
DJ	Djibouti
DK	Denmark
DM	Dominica
DO	Dominican Republic
DZ	Algeria
EA	Eurasian Patent Organization (EAPO)
EC	Ecuador
EE	Estonia
EG	Egypt
EP	European Patent Office (EPO)
ER	Eritrea
ES	Spain
ET	Ethiopia
FI	Finland
FJ	Fiji
FR	France
GA*	Gabon
GB	United Kingdom
GD	Grenada
GE	Georgia
GH	Ghana
GI	Gibraltar
GM	Gambia
GN	Guinea
GQ	Equatorial Guinea
GR	Greece
GT	Guatemala
GW	Guinea-Bissau
GY	Guyana
HN	Honduras

HR	Croatia
HT	Haiti
HU	Hungary
IB	WIPO International Bureau
ID	Indonesia
IE	Ireland
IL	Israel
IN	India
IQ	Iraq
IR	Iran
IS	Iceland
IT	Italy
JM	Jamaica
JO	Jordan
JP	Japan
KE	Kenya
KG	Kyrgyzstan
KH	Cambodia
KM	Comoros
KN	St. Kitts and Nevis
KP	Korea, Democratic People's Republic of
KR	Korea, Republic of
KW	Kuwait
KZ	Kazakhstan
LA	Laos
LB	Lebanon
LC	Saint Lucia
LI	Liechtenstein
LK	Sri Lanka
LR	Liberia
LS	Lesotho
LT	Lithiuania
LU	Luxembourg
LV	Latvia
LY	Libyan Arab Jamahiriya
MA	Morocco
MC	Monaco
MD	Republic of Moldova
ME	Montenegro
MG	Madagascar
MK	Former Yugoslav Republic of Macedonia
ML	Mali
MM	Myanmar
MN	Mongolia
MR*	Mauritania
MT	Malta
MU	Mauritius
MV	Maldives
MW	Malawi
MX	Mexico
MY	Malaysia
MZ	Mozambique
NA	Namibia
NE*	Niger
NG	Nigeria
NI	Nicaragua
NL	Netherlands
NO	Norway
NP	Nepal
NZ	New Zealand
OA	African Intellectual Property Organization (OAPI)
OM	Oman
PA	Panama
PE	Peru
PG	Papua New Guinea
PH	Philippines
PK	Pakistan
PL	Poland
PT	Portugal
PY	Paraguay
QA	Qatar
RO	Romania
RS	Serbia
RU	Russia
RW	Rwanda
SA	Saudi Arabia
SC	Seychelles

SD	Sudan
SE	Sweden
SG	Singapore
SI	Slovenia
SK	Slovakia
SL	Sierra Leone
SM	San Marino
SN*	Senegal
SO	Somalia
SR	Suriname
ST	Sao Tome and Principe
SV	El Salvador
SY	Syrian Arab Republic
SZ	Swaziland
TD*	Chad
TG*	Togo
TH	Thailand
TJ	Tajikistan
TN	Tunisia
TO	Tonga
TR	Turkey
TM	Turkmenistan
TT	Trinidad and Tobago
TW	Taiwan, Province of China
TZ	United Republic of Tanzania
UA	Ukraine
UG	Uganda
US	United States of America
UY	Uruguay
UZ	Uzbekistan
VA	Holy See (Vatican City State)
VC	St. Vincent and the Grenadines
VE	Venezuela
VN	Viet Nam
WO	World Intellectual Property Organization (WIPO)
WS	Samoa
YE	Yemen
ZA	South Africa
ZM	Zambia
ZW	Zimbabwe

* Organization Africaine de la Propriete Intellectuelle (OAPI) is a union, consisting of former French colonies, for the protection of intellectual property

As of December 2006 there were 184 members states of the Organization. Other Thomson Scientific coverage includes European Patent Office (EP), International Technology Disclosures (TP), Research Disclosure (RD) and WIPO (PCT) (WO).

Appendix 2 – International Agreed Numbers for the Identification of Data [INID]

[10] Document identification.
- [11] Number of the document
- [12] Plain language. designation of the kind of document.
- [13] Kind of document code according to WIPO Standard ST.16.
- [19] WIPO Standard ST. 3 code, or other identification, of the office publishing the document.

[20] Domestic filing data
- [21] Number(s) assigned to the application(s).
- [22] Date(s) of filing application(s).
- [23] Other date(s), including date of filing complete specification following provisional specification and exhibition filing date.
- [24] Date from which industrial property rights may have effect.
- [25] Language in which the published application was originally filed.
- [26] Language in which the application is published.

[30] Priority Data
- [31] Number(s) assigned to priority application(s).
- [32] Date(s) of filing of priority application(s).
- [33] WIPO Standard ST.3 Code identifying the national patent office allotting the priority application number or the organization allotting the regional priority application number for the international applications filed under the PCT, the Code "WO" is to be used.
- [34] For priority filings under regional or international arrangements, the WIPO Standard ST. 3 Code identifying at least one country party to the Paris Union for which the regional or international application was made.

[40] Date(s) of making available to the public
- [41] Date of making available to the public by viewing, or copying on request, an unexamined document, on which no grant has taken place on or before the said date.
- [42] Date of making available to the public by viewing, or copying on request, an examined document, on which no grant has taken place on or before the said date.
- [43] Date of publication by printing or similar process of an unexamined document, on which no grant has taken place on or before the said date.
- [44] Date of publication by printing or similar process of an examined document on which no grant has taken place on or before the said date.
- [45] Date of publication by printing or similar process of an examined document on which grant has taken place on or before the said date.
- [46] Date of publication by printing or similar process of the claim(s) only of a document.
- [47] Date of making available to the public by viewing, or copying on request, a document on which grant has taken place on or before the said date.

[50] Technical information
- [51] International Patent Classification.
- [52] Domestic or national classification.
- [53] Universal Decimal Classification.
- [54] Title of the invention.
- [55] Keywords.
- [56] List of prior art documents, if separate from descriptive text.
- [57] Abstract or claim.
- [58] Field of search.

[60] References to other legally related domestic patent documents including unpublished applications therefore

[61] Number and, if possible, filing date of the earlier application, or number of the earlier publication, or number of earlier granted patent, inventors' certificate, utility model or the like to which the present document is an addition.

[62] Number and, if possible, filing date, of the earlier application from which the present document has been divided out.

[63] Number and filing date of the earlier application of which the present document is a continuation.

[64] Number of the earlier publication which is "reissued."

[65] Number of a previously published patent document concerning the same application.

[66] Number and filing date of the earlier application of which the present document is a substitute, i.e., a later application filed after the abandonment of an earlier application for the same invention.

[70] Identification of parties concerned with the document

[71] Name(s) of application(s)

[72] Name(s) of inventor(s) if known to be such

[73] Name(s) of grantee(s)

[74] Name(s) of attorney(s) or agent(s)

[75] Name(s) of inventor(s) who is (are) also applicant(s)

[76] Name(s) of inventor(s) who is (are) also applicant(s) and grantee(s)

[80] Identification of data related to International Conventions other than the Paris Convention

[81] Designated state(s) according to the PCT

[82] Elected state(s) according to PCT.

[83] Information concerning the deposit of micro-organisms, e.g. under the Budapest Treaty.

[84] Designated contracting states under regional patent conventions.

[85] Date of fulfilment of the requirements of Articles 22 and/or 39 of the PCT for introducing the national procedure according to the PCT.

[86] Filing date of the regional or PCT application, i.e. application filing date, application number, and, optionally, the language in which the published application was originally filed.

[87] Publication data of the regional or PCT application, i.e. publication date, publication number, and, optionally the language in which the application is published.

[88] Date of deferred publication of the search report.

[89] Document number and country of origin of the original document according to the CMEA Agreement on Mutual Recognition of Inventors' Certificates and other Titles of Protection for Inventions.

Appendix 3 – Patent Kind Codes

Country (Code)	Kind	Explanation (document title) (Thomson Scientific week/Update)
AR	A	Patent [1974 - 1976 only]
AT	A	Examined accepted specification (Old Law)
	A1	Publication of application with search report
	A2	Publication of application without search report
	A3	Publication of search report
	A4	A2 document published on same day as B doc with no corresponding A3 doc.
	A5	Examined patent application laid open
	A8	Corrected title page of Austrian A document
	A9	Complete reprint of Austrian A document
	B	Examined granted patent (from 199303)
	B1	Patent
	B2	Patent amended after opposition
	B8	Corrected title page of Austrian B document
	B9	Complete reprint of Austrian B document
AU	A	Complete spec. OPI
	A1	Complete spec. OPI
	A2	Amended OPI document
	A4	Granted/OPI Innovation Patent
	A5	Amended pre-grant/OPI Innovation Patent
	A6	Amended post-grant/OPI Innovation Patent
	A8	Corrected document (bibliography)
	A9	Corrected document (specification)
	B	Accepted patent
	B1	Patent (Without preceding A1)
	B2	Accepted Standard - previously OPI
	B3	Granted Petty - irrespective of whether previously OPI or not
	B4	Certified Innovation Patent
	B8	Corrected document (bibliographic data) B1-B4
	B9	Republished corrected version of any one of B1 - B4
BE	A	Patent – early years
	A0	Patent awaiting type
	A3	Patent with search report
	A4	Amended/corrected patent with search report
	A5	Patent with amended claims and search report
	A6	Patent – maximum 6 years
	A7	Amended/corrected 6-year patent
	B3	Patent of invention, first published as A0
	B5	Patent of invention, 2nd publication
	B6	Patent of invention, 2nd publication
	B7	Patent of invention, 2nd publication
	T	Transfer to BE national patent from EP application
	T7	Transfer from EP application
BR	A	OPI application - not searched or examined
	A3	Pipeline patent application

Country (Code)	Kind	Explanation (document title) (Thomson Scientific week/Update)
CA	A	Examined granted patent - old law
	A1	Unexamined patent - new law (from 16.10.1990)
	B	Reissue - old law
	C	Granted patent (old & new law) (from 16.10.1990)
	E	Reissue - old & new law (from 16.10.1990)
	F	Re-examination (from 16.10.1990)
CH	A	Granted unexamined patent or examined application
	A3	Searched and examined application (from 1978)
	A5	Granted unexamined patent
	A8	Correction of A5 document (biblio only)
	A9	Correction of A5 document (full text)
	B	Examined accepted specification
	B5	Granted patent with examination
CN	A	Unexamined application
	C	Granted patent (from 01/01/93)
CS	A	Examined accepted specification
	A1	Patent application
	A2	Patent application (from 199232)
	B	Granted patent (from 199301)
CZ	A3	OPI before examination (from 199417)
	B6	Granted patent (from 199417)
DD	A	Examined granted patent
	A5	Patent specification (exclusive patent)
	A7	Patent specification (exclusive and searched)
	A8	Addition to exclusive patent
	A9	OPI application published from 01.05.1992
	B	Re-examined after grant
	B1	Economic patent, searched and examined
	B3	Exclusive patent, searched and examined
	B5	Patent specification following an A7 after an objection
	C	Examined granted patent
	C4	Granted examined exclusive patent
DE	A	OPI application and examined accepted specification
	A1	OPI application and examined accepted specification
	A8	Correction of patent application from 2004 (biblio)
	A9	Correction of patent application from 2004 (text)
	B	Examined accepted specification from 1974
	B3	Patent, first publication, from 200401
	B4	Patent, second publication, from 200401
	B8	Correction of granted patent from 2004 (biblio)
	B9	Correction of granted patent from 2004 (text)
	C	Granted patent from 1981 week 8138 to 199252
	C1	Patent, first publication, from 199301
	C2	Patent, second publication from 199301

Country (Code)	Kind	Explanation (document title) (Thomson Scientific week/Update)
	C5	Modified patent (from 2004)
	C8	Reprint title page
	C9	Reprint complete
	E	Granted EP assigned DE number, EP published in English or French
	G	Granted EP assigned DE number, EP published in German
	T	PCT transfer to DE
	T2	Translation of EP patent – published document (from 2005)
	T5	Translation of WO application (from 2004)
	T8	Reprint title page
	T9	Reprint complete
	U	Gebrauchsmuster (Utility Model)
	U1	Gebrauchsmuster (Utility Model)
	U8	Correction of utility model from 2004 (biblio)
	U9	Correction of utility model from 2004 (text)
DK	A	OPI application
	B	Granted patent (from 199301)
EP	A	OPI application
	A1	OPI application with search report (from 199220)
	A2	OPI application without search report (from 199221)
	A3	Examiner's search report only for A2 (from 199221)
	A4	Supplementary search report
	A8	Corrected title page of an A document
	A9	Complete reprint of an A document
	B	Examined granted specification (pre 199220)
	B1	Examined granted specification (from 199220)
	B2	Amended specification (from 199220)
	B8	Corrected title page of a B document
	B9	Complete reprint of a B document
ES	A	Unexamined granted patent (Old Law)
	A1	OPI application (New Law) - from 1987
	A2	Certificate of addition
	A6	OPI application without search report
	B	Granted patent from 1987
	B1	Granted patent published with search report
	B2	Granted patent with previous examination
	T1	Translation of claims with drawings of EP application
	T3	Translation of EP granted
FI	A	OPI application
	B	Examined patent application (from 199302)
	B1	Granted patent (new law) (from 199733)
FR	A	Granted patent (until 1969)
	A	OPI application (from 1969)
	A1	OPI application
	A2	Application for certificate of addition
	A3	Application for certificate of utility
	E	Certificate of addition (until 1969)
	M	Medicament (until 1979)
	M	Medicament addition (until 1979)
GB	A	Examined granted specification (<2000000)
	A	OPI application (2000000+)
	B	Examined granted specification

Country (Code)	Kind	Explanation (document title) (Thomson Scientific week/Update)
HU	A	OPI application
	A	Patent (new law) not published at application stage
	A1	Publication of patent application with search report (1995 Law)
	A2	Publication of patent application without search report (1995 Law)
	B	Granted patent with search report (from 199302)
	B1	Granted patent
	H	OPI application
	T	Examined accepted specification
IE	A	Patent specification (1963 - 1969 only)
	B	Granted patent (from 199517)
	B3	Short patent (from 199617)
IL	A	Application for patent of invention
IN	B	Pre opposition granted applications
	I1	Application - filed in Delhi
	I2	Application - filed in Kolkata
	I3	Application - filed in Mumbai
	I4	Application - filed in Chennai
	P1	PCT application - national phase - Delhi
	P2	PCT application - national phase - Kolkata
	P3	PCT application - national phase - Mumbai
	P4	PCT application - national phase - Chennai
IT	B	Unexamined granted patent
JP	A	OPI application
	B	Examined application
	B1	Examined patent – not published at A stage
	B2	Examined application (from 199404 to 199618) Registered granted patent (from 199626)
	W	PCT transfer (origin abroad)
	X	PCT transfer (origin Japan)
	Y	PCT transfer to Utility Model (origin abroad)
	Z	PCT transfer to Utility Model (origin Japan)
KR	A	Application
	B	Examined patent specification
	B1	Examined patent specification (from 199252)
	B2	Examined Patent Application (1st publication)
LU	A	Unexamined granted patent
MX	A	Granted (Old Law)
	A1	Application (18 month)
	A2	Application (published earlier 18 month)
	A4	Regional filing - JL (Jalisco)
	A5	Regional filing - NL (Nuevo Leon)
	A6	Regional filing - YU (Yucatan)
	A7	Regional filing - GT (Guanajuato)
	B	Granted (New Law)

Country (Code)	Kind	Explanation (document title) (Thomson Scientific week/Update)
NL	A	Unexamined application
	A1	New law unexamined application
	B	Examined patent
	C	Granted patent (old law)
	C2	20-year new law granted patent
	C6	6-year new law petty patent
NO	A	OPI application
	B	Examined application (from 199301)
	B1	Granted patent (from 199718)
NZ	A	Examined application (from 199301)
PH	A	Old law granted patent (ended June 1999)
	B	New law granted patent (started Oct 1999)
	B1	New law granted patent (started Oct 1999)
	B2	Amended new law granted patent
PT	A	Application for patent of invention
	A1	Application open for public inspection (from 200238)
RD	A	Scientific literature disclosure (Research Disclosure) (c) Kenneth Mason Publications Limited [2006] www.researchdisclosure.com
RO	A	Examined granted patent (1974 Law)
	B	Granted patent according to 1991 law
	B1	Granted patent according to 1991 law
RU	C	Patent
	C1	Patent
	C2	Patent
	C9	Reissued patent
SE	A	OPI application
	B	Examined accepted specification (from 198701)
	C2	Granted patent (new law)
SG	A	Registration (from 199513)
	A1	Patent application (from 199631)
SK	A	Accepted application
	A1	Authors certificate
	A2	Patent application
	A3	Patent applications according to Law 527/90
	B	Description of the invention/patent specification
	B6	Granted applications according to Law 527/90
SU	A	Examined granted patent
	A1	Inventor's Certificate
	A2	Addition to Inventor's Certificate
	A3	Patent
	A4	Patent of Addition
	B	Reissued patent
TP	A	Scientific literature disclosure (International Technology Disclosure)

Country (Code)	Kind	Explanation (document title) (Thomson Scientific week/Update)
TW	A	Examined patent (Old Law)
	A	Unexamined application (New Law)
	B1	Granted patent (New Law)
US	A	Granted patent - prior to 2001
	A1	Patent Application Publication - from March 2001
	A2	Patent Application Publication (Republication) - March 2001
	A9	Patent Application Publication (Corrected Publication) - from March 2001
	Bx	Re-examination certificate - prior to 2001 (replaced by Cx from 2001)
	B1	Granted patent with no previously published application - from 2001
	B2	Granted patent having a previously published application - from March 2001
	Cx	Re-examination certificate - from 2001
	E	Reissue
	H	Defensive specification (replaced by Statutory Invention Registration)
	H	Statutory Invention Registration
	N	Kind code assigned by Thomson Scientific to NTIS published invention application (from 198841)
WO	A	OPI application
	A1	OPI application with search report (from 199220)
	A2	OPI application without search report (from 199220)
	A3	Search report for A2 (from 199220 - 1998 only). Citations not available in DPCI.
ZA	A	Unexamined accepted specification
	AA	Second application with same number

Appendix 4 – Start dates for Thomson Scientific country coverage

Country	Code	pre-CPI			CPI		EPI/EngPI	
		Farmdoc	Agdoc	Plasdoc	Major	Minor	Major	Minor
Argentina	AR					02.1975		02.1975
Australia	AU	18.01.1963	01.04.1965	03.03.1966	21.12.1982		21.12.1982	
Austria	AT				15.12.1992	15.03.1975		15.03.1975
Belgium	BE	25.01.1963	01.04.1965	25.04.1966	16.01.1970		25.02.1974	
Brazil	BR				04.03.1987	16.12.1975		16.12.1975
Canada	CA	29.01.1963	06.04.1965	26.04.1966	06.01.1970		05.03.1974	
China	CN				10.09.1985		10.09.1985	
Czech Republic	CZ					16.03.1994		16.03.1994
Czechoslovakia	CS					28.03.1975		28.03.1975
Denmark	DK				14.10.1974		14.10.1974	
European	EP				20.12.1978		20.12.1978	
Finland	FI					30.09.1974		30.09.1974
France	FR	01.02.1963	02.04.1965	29.04.1966	14.11.1969		18.01.1974	
Germany (East)	DD	01.01.1963	05.04.1965	05.05.1966	20.10.1969		05.01.1974	
Germany	DE	31.01.1963	01.04.1965	28.04.1966	02.01.1970		07.03.1974	
Hungary	HU				23.12.1982	28.05.1975		28.05.1975
India	IN			04.12.2004		04.12.2004		
Int. Tech. Disc.	TP				25.01.1984		25.01.1984	
Ireland	IE	25.01.1963	28.03.1965	01.04.1966	25.01.1995		25.01.1995	
Israel	IL				31.12.1982	13.03.1975		13.03.1975
Italy	IT			19.09.1966		30.09.1977		30.09.1977
Japan	JP	09.01.1963	01.04.1965	08.04.1966	05.01.1970		08.01.1981	
Korea, South	KR				02.05.1989	30.01.1986		30.01.1986
Luxembourg	LU					24.09.1984		24.09.1984
Mexico	MX				01.01.1997		01.01.1997	
Netherlands	NL	15.02.1963	02.04.1965	02.05.1966	31.01.1970		26.02.1974	
New Zealand	NZ				28.10.1992		28.10.1992	
Norway	NO					04.11.1974		04.11.1974
PCT	WO				19.10.1978		19.10.1978	
Philippines	PH				13.01.1992		13.01.1992	
Portugal	PT				30.12.1982	04.10.1974		04.10.1974
Res. Disc.								
(c) Kenneth Mason								
Publications Limited [2006]								
www.researchdisclosure.com	RD				01.1978		01.1978	
Romania	RO				07.1982	01.06.1975		01.06.1975
Russian Federation	RU				30.03.1994		30.03.1994	
Singapore	SG				13.01.1995		13.01.1995	
Slovakia	SK					07.07.1993		07.07.1993
South Africa	ZA	23.01.1963	07.04.1965	03.05.1966	02.1970		02.02.1974	
Soviet Union	SU	01.1963	04.1965	06.1966	12.1969		07.03.1974	
Spain	ES				01.06.1987	01.07.1983		01.07.1983
Sweden	SE				23.09.1974		23.09.1974	
Switzerland	CH	15.02.1963	15.04.1965	15.01.1969	27.02.1970		15.05.1974	
Taiwan	TW				01.01.1993		01.01.1993	
United Kingdom	GB	06.02.1963	07.04.1965	27.04.1966	07.01.1970		13.03.1974	
United States	US	29.01.1963	06.04.1965	26.04.1966	06.01.1970		05.03.1974	

The dates in this table are the publication dates of the actual documents and not the Thomson Scientific issue date.

Appendix 5 - Thomson Scientific coverage of Japanese patents by International Patent Classification (IPC)

IPC	SECTION	THOMSON SCIENTIFIC (Kokai and Kokoku)
A	Human necessities A01, A21-24 A41-47, A 61-64	A01N, *A21, *A22, *A23, *A61K* A61LM, A62D A01JK, A24D, A42BCD, A44B, A47JKL, A61BCF A01GM, A24B, A41FG, A45D, A61J, A62C
B	Performing operations and transporting B01-09, B21-32 B41-44, B60-68	B01,* B29* B21BHK, B22, B23K, B27K, B60C B03, B04, B05, B07B, B32, B65H B21CJ, C41DMN
C	Chemistry, Metallurgy C01-14, C21-23 C25, C30	C*
D	Textiles and Papter D01-07, D21	D*
E	Fixed construction E01-06, E21	E21B
F	Mechanical Lighting Heating, Explosives F01-04, F15-17 F21-28, F41-42	F17C, F42B F25, F27 F22B, F26, F28
G	Physics G01-12, G21	G21,* G01N,* 31/00-33/44, 33/48-50 G03CG
H	Electrical H01-05	H (Nearly all as Derwent expanded titles) (Complete only from 1982) (Kokai only)

NOTES:

1. 100% coverage of all applications from 199548.

2. IPCs marked with asterisks are guaranteed to have Thomson Scientific abstracts. Otherwise entries are either Thomson Scientific abstracts or Thomson Scientific expanded titles.

3. Selection can take place from other IPCs if of CPI importance.

4. From 200450 (publication date 07.07.2004), the *DWPI* coverage of JP-B was extended to include all technologies.

Coverage of Japanese unexamined documents was extended to all technologies during 1995, phased in as follows:

IPC	THOMSON SCIENTIFIC UPDATE
B60, F01, F02N, FO2P, F16, F17, B65-B68	199528
G06, G11, B02-B09	199532
B21-B28, B30-B32, B41-B44, F21-F41	199536
E01-E21, F02-F15, B61-B64	199540
G01-G12	199544
A01-A47, A61-A63	199548

Appendix 6 – The Thomson Scientific Classification for all Technologies

The Thomson Scientific Classification System

Thomson Scientific indexes patent documents using a simple classification system for all technologies. This unique classification is consistently applied to all patents by Thomson Scientific subject experts, enabling effective and precise searching in a particular area of technology. Patents are divided into three broad areas: Chemical; Engineering; and Electronic and Electrical.

Sections

Patents are subsequently divided into 20 broad subject areas or Sections. These are designated A-M (Chemical); P-Q (Engineering); and S-X (Electronic and Electrical).

Classes

These Sections are then further sub-divided. Each Class is comprised of the Section letter, followed by a two digits. For example X22 is the Class designation for Automotive Electrics and C04 is the class for all Chemical Fertilisers.

When used in combination with other online search terms e.g. Keyword Search, these Classes allow you to precisely and effectively restrict your search to the relevant subject area.

For example, the otherwise ambiguous word "WARN" can be combined with X22 (Automotive Electrics) to retrieve only those references to automotive warning devices.

Thomson Scientific cross-classifies entries to ensure that all the patents of interest are located.

International Patent Classification

The International Patent Classification (IPC) is an internationally recognized classification system, which is controlled by the World Intellectual Property Organisation (WIPO) and assigned to patent documents by Patent Officers.

In this brochure we have indicated against the Thomson Scientific Class the equivalent IPC in an abbreviated form (eg A47, F23-5). However, this should only be taken as a guide, since there are areas where the Thomson Scientific Classes are assigned intellectually by our subject experts, and no strict correspondence is claimed.

In Sections P and Q (Engineering) the correlation between the IPC and Thomson Scientific Class is exact.

Prior to the introduction of the separate Electrical service (Sections S-X), in 1980, a direct conversion of the IPC to the Thomson Scientific Class (Section R) was used. Reference to these R-Classes may be seen online, but can be ignored since all records have been converted to the S-X series.

Thomson Scientific Subscriber Organizations

Organizations subscribing to particular Sections may additionally be able to access the Thomson Scientific online databases at "preferential rates" and have access to some or all of the related intellectual indexing e.g. Polymer or Chemical Indexing.

For further information on becoming a Thomson Scientific Subscriber or benefiting from the Thomson Scientific online services simply contact your local Thomson Scientific office.

Patent families

Thomson Scientific assembles information describing a patent family, starting with the new invention (Basic patent) and adding information about the same invention issued in other countries (Equivalents).

Equivalent patent documents are regarded a falling within the same sections as the basic document which Thomson Scientific first classifies.

Main Sections

Chemical patents currently covered by Thomson Scientific are selected for inclusion in one or more of the following twelve sections:

Table 24 Main chemical sections

A	Polymers and Plastics
B	Pharmaceuticals
C	Agricultural Chemicals
D	Food, Detergents, Water Treatment and Biotechnology
E	General Chemicals
F	Textiles, Paper Making
G	Printing, Coating, Photographic
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics, Cement, Electro(in)organics
M	Metallurgy

Classes

These twelve Sections are broken down into 138 well-defined Classes.

These are primarily intended to break down the subject matter simply and unambiguously for greater search precision.

Classification covers the complete patent document taking into account all the claims, particularly references to the use of chemicals or polymers, even when the main subject matter is non-chemical.

Where any patent specification falls logically into more than one section of the Chemical Classification it will be included in each of those Sections. Thus a patent involving a new dyestuff for synthetic textiles will be included in the appropriate classes of Sections A, E and F.

A Polymers and Plastics

Coverage

Table 25 The features selected for inclusion in Polymers and Plastics

Polymers	Synthetic polymers. Selected natural polymers eg rubber. Modified natural polymers. Polymerisation equipment and polymer work-up.
Fabrication	All processes and equipment for fabricating polymers including extrusion, injection moulding and slush moulding. The production, treatment and use of film, sheet and pipe.
Monomers	All patents relating to the production and purification of usefully polymerisable monomers, either known or shown clearly in the specification. Monomers are additionally covered in Section E.
Additives	Preparation and use of catalysts. To be used in polymer processes. Stabilisers, surface-active agents, plasticisers slip agents, antistatic agents etc. for use with polymers. Patents primarily covering the use of colouring and dyeing agents for polymers.
Uses	Wherever specific synthetic polymers or families of polymers are claimed or the specification is clearly concerned with them. Wherever novelty resides in the use of polymers. When the polymer is not specified or can be a range of alternative materials for an application it is not included. Thus the use of rubber (undefined) components for a common application are automatically excluded.

A1 Addition and Natural Polymers

A11	Polysaccharides; natural rubber; other natural polymers *(only a restricted range of (modified) natural polymers are included. Thus starch would be excluded, but chemically modified starch included).*
A12	Of di-and polyunsaturated olefins; acetylenics; nitroso compounds.
A13	Of aromatic mono-olefins; including polystyrene.
A14	Of other substituted mono-olefins; including PVC, PTFE.
A17	Of unsubstituted aliphatic mono-olefins; including polyethylene.
A18	Addition polymers in general.

A2 Condensation Polymers

A21	Epoxides; aminoplasts; phenoplasts.
A23	Polyamides; polyesters. (*including polycarbonates, polyesteramides*); alkyds.
A25	Polyurethanes; polyethers.
A26	Other condensation polymers including inorganic polymers *(mineral silicates and similar materials would not usually appear in Section A).*
A28	Condensation polymers in general.

A3 Processing: General Additives and Applications

A31	Preliminary processes.
A32	Polymer fabrication - such as moulding, extrusion, forming, laminating, spinning.
A35	Other processing and general - including vulcanisation, welding of plastic and adhesive processes.

A41 Monomers and Condensants

These are also included in Section E.

A60 Additives and Compounding Agents

If the usage is restricted to a particular polymer type it may be classified under the individual polymer or process involved, only.

A8/9 Applications

A81	Adhesives and binders - including chipboard.
A82	Coatings, impregnations, polishes - excluding textile finishing.
A83	Clothing, footwear.
A84	Household and office fittings - including carpets.
A85	Electrical applications.
A86	Fancy goods, games, sports, toys.
A87	Textile auxiliaries.
A88	Mechanical engineering and tools e.g. valves, gears and conveyor belts.
A89	Photographic, laboratory equipment, optical - including electrophotographic, thermographic uses.
A91	Ion-exchange resins, polyelectrolytes.
A92	Packaging and containers - including ropes and nets.
A93	Roads, building, construction, flooring.
A94	Semi-finished materials - fibres, films, foams.
A95	Transport - including vehicle parts, tyres and armaments.
A96	Veterinary, medical, dental, cosmetic.
A97	Miscellaneous goods not specified elsewhere - including papermaking, gramophone records, detergents, food and oil well applications.

B Pharmaceuticals

All compounds stated to be of pharmaceutical or veterinary interest, as well as those relating to compounds for use as intermediates in the manufacture of pharmaceutical or veterinary products. Compositions used for diagnosis and analysis in the pharmaceutical and veterinary fields (e.g. stains for bacterial pathogens) are included.

Artificial sweeteners, chemical warfare agents and plaque disclosing compositions are also included.

Patents dealing with the production of tablets, pills, capsules, suppositories etc. are included, as are devices for specifically dispensing pharmaceutical such as syringes, child- proof closures, calendar pill boxes, aerosols etc.

For each compound where more than one of the classifications given below could be assigned, then the order of priority is B1 before B2, B2 before B3.

B01	Steroids - including systems containing carbocyclic and/or heterocyclic rings fused onto the basic steroidal ring structure.
B02	Fused ring heterocyclics.
B03	Other heterocyclics.
B04	Natural products and polymers. Testing of body fluids (other than blood typing or cell counting), pharmaceuticals or veterinary compounds of unknown structure, testing of micro-organisms for pathogenicity, testing of chemicals for mutagenicity or human toxicity and fermentative production of DNA or RNA.
B05	Other organics - aromatics, aliphatic, organo-metallics, compounds whose substituents vary such that they would be classified in several of B01 - B05.
B06	Inorganics - including fluorides for toothpastes etc.
B07	General - tablets, dispensers, catheters (excluding drainage and angioplasty), encapsulation etc, but not systems for administration of blood or saline or IV feeding etc.

C Agricultural Chemicals

Table 26 Compounds of agricultural and veterinary interest included in section C

Pest growth control agents	Insecticides, miticides, rodenticides, molluscicides, slugicides, vermicides (nematocides, anthelmintics, etc.) soil fumigants, pest repellents and attractants and also chemical warfare agents. Biological control; microorganisms, predators and natural products.
Plant growth control agents	Herbicides, weedicides, defoliants, desiccants, fruit drop and set controllers, rooting compounds, sprouting inhibitors, growth stimulants and retardants, moss and lichen controllers. Plant genetics.
Plant disease control agents	Fungicides, viricides, timber preservatives and bactericides.
Soil improvement agents	Fertilisers, trace metal additives, bacterial action control stimulants and soil consolidation agents, if for agricultural purposes.
Veterinary products	Disease control agents, nutritional agents, veterinary vaccines.

For each compound where more than one of the classifications given below could be assigned, then the order of priority is C01 before C02 and C02 before C03.

C01	Organophosphorus; organometallic - ie containing other than H, C, N, O, S and halogen.
C02	Heterocyclic.
C03	Other organic compounds, inorganic compounds and multi-component mixtures. Polymers and proteins.
C04	Fertilisers - including urea and phosphoric acid production. Also soil modifiers and plant growth media. Chemical aspects of compost production.
C05	Biological control - excluding veterinary medicine, but including use of microorganisms, predators and natural products.
C06	Biotechnology - including plant genetics and veterinary vaccines.
C07	Apparatus, formulation, general. Including veterinary syringes, general formulations where the active compound is not central to the invention (eg wettable powders) and analysis.

D Food, Detergents, Water Treatment and Biotechnology

The food classes include commercial food machinery, processes and products. Domestic apparatus, operations which would be performed on the farm or plantation prior to arrival at the food factory, and packaging are excluded, unless they are in IPC A21 - A23.

Approximate IPCs are given in brackets.

D1	*Food and Fermentation*
D11	Baking - including bakery products, flour, doughs, bakery ovens, dough transporting and/or handling equipment, pies and pasta, but not flour milling (A21).
D12	Butchering, meat treatment, processing poultry or fish (A22).
D13	Other foodstuffs and treatment including preservation of food, milk, milk products, butter substitutes, edible oils and fats, non-alcoholic beverages, artificial sweeteners, food additives and animal feed (A23B-L).
D14	General foodstuffs machinery excluding machines which can be classified in D11-13 (A23N, P).
D15	Treating water, industrial waste and sewage including purification, sterilising or testing water, scale prevention, treatment of sewage sludge, regeneration of active carbon which has been used for water treatment and impregnating water with gas e.g. CO_2, but excluding marine anti-pollution devices and purification of water which will be recycled within an industrial process (C02).
D16	Fermentation industry including fermentation equipment, brewing, yeast production, production of pharmaceuticals and other chemicals by fermentation, microbiology, production of vaccines and antibodies, cell and tissue culture and genetic engineering.
D17	Sugar and starch industry (C07H, C13).
D18	Skins, hides, pelts, leather and chemical treatment of tobacco, but excluding drying, wetting, cutting or shaping tobacco (A24, C14).

D2	*Cosmetics, Disinfectants and Detergents*
D21	Preparations for dental or toilet purposes including filling alloys, compositions for dentures or dental impressions, anti-caries chewing gum, plaque disclosing compositions, toothpastes, cosmetics, shampoos, topical anti-sunburn compositions and toilet soaps (A61K).
D22	Sterilising, bandages, dressing and skin-protection agents including sterilising agents (other than for food), sutures, plaster casts, bioactive prostheses, contact lenses, diapers, animal litter, timber preservatives, disinfectants, bactericidal detergents, antibacterial or antifungal deodorants, insect repellent compounds, moth proofers, sheep dip, insect attractants (where for cleaning air), flysprays and compositions for relieving insect bites and stings (A61L).
D23	Oils, fats and waxes including fatty acids, candles, essential oils, but excluding butter (substitutes) and montan wax (C11B, C).
D24	Soap (limited to metal salts of fatty acids which are used for cleaning) (C11D).
D25	Detergents other than soap and used for cleaning (C11D).

E General Chemicals

Patents concerning the production, purification, use, detection, removal or phase changes, of non-polymeric chemical compounds, and apparatus and novel catalysts for producing them, are classified in Section E.

Exception to this are:

- Compounds stated to be solely for use as a pharmaceutical, veterinary medicament, fertiliser, herbicide or pesticide are classified only in Sections B and/or C. However, where an additional use is stated, e.g. the compound is a dyestuff intermediate, the patent is classified in Sections B and/or C and E.
- Monomers taking part in a polymerisation reaction and starting materials for a chemical reaction are not classified in Section E, unless the patent is also concerned with the production or purification of the monomer/starting material.
- Polymerisation catalysts are not normally classified in Section E, unless the novelty of the invention is the catalyst and it is a single compound.
- Mixtures of compounds described as a cut in a petrochemical process are normally classified in Section H only.
- Complex non-stoichiometric compounds, eg those used as fluorescent materials are classified in Section L only, but simpler compounds are normally classified also in Section E. Growth of single crystals of pure elements or compounds e.g. Si, GaAs or BN is classified in Sections E and L.

Where necessary a patent is classified in Section E for the compound and other Section(s) for its use(s), etc. Typically, perfumes, flavourings and additives to foods and tobacco are normally classified in Sections D and E. Solvents and very common reagents such as water are not normally classified in Section E.

For each compound, when more than one of the classification below could be assigned, then the priority is E11 before E12 and E12 before E13.

E1	***General Organic***
E11	Containing P and/or Si.
E12	Organometallics - i.e. containing other than H, C, N, O, S, halogens, Si and P.
E13	Heterocyclics.
E14	Aromatics - i.e. containing at least one benzene ring.
E15	Alicyclics.
E16	Aliphatics - containing N and/or halogen.
E17	Other aliphatics.
E18	General hydrocarbon mixtures.
E19	Other organic compounds general - organic compounds of unknown or indefinite structure; general mixtures of many types; organic reactions (e.g. nitration, resolution) when applied generally.

E2	***Dyestuffs***
E21	Azo - including diazonium compounds.
E22	Anthracene - including those containing more than 3 rings.
E23	Heterocyclic.
E24	Other dyes, all precursors.

E3	***General Inorganic***
E31	Compounds of V, Cr, Mn, Fe, Co, Ni, Nb, Mo, Tc, Ru, Rh, Pd, Ta, W, Re, Os, Ir, Pt, Pa, U and subsequent actinides.
E32	Compounds of metals Cu, Zn, Ga, Ge, As, Ag, Cd, In, Sn, Sb, Au, Hg, Tl, Pb, Bi, Ti, Zr, Hf.
E33	Compounds of metals Be, Mg, Ca, Sc, Sr, Y, Ba, La, Ra, Ac, Al, Lanthanides, Th.
E34	Compounds of Li, Na, K, Rb, Cs, Fr.
E35	Ammonia, cyanogen and their compounds - including HCN and cyanamide, but not hydrazine.
E36	Non-metallic elements, semi-metals (Se, Te, B, Si) and their compounds (except for E35).
E37	Mixtures of many components; inorganic reactions and processes of general applicability.

F Textiles and Paper Making

Includes processes and machinery used in textile manufacture.

Approximate IPCs are given in brackets.

Non-textile fibre handling processes e.g. for fibre-reinforced polymer production are classified only in Section A.

F01	Threads and fibres - natural or artificial; spinning - includes the production of mineral and carbon fibres (D01).
F02	Yarns - mechanical finishing of yarns or ropes; warping or beaming (D02, D07).
F03	Weaving - including finished products (D03).
F04	Braiding, knitting - including trimmings and non-woven fabrics (D04).
F05	Sewing, embroidering, tufting - including finished products (D05).
F06	Chemical-type treatment of textiles (D06B, L, M, P, Q).
F07	Other textile treatment - (D06C, F, G, H, J, L, M).
F08	Flexible sheet materials - consisting of polymer-coated fibrous web, including end products not classified in other sections (D06N).
F09	Paper-making, production of cellulose, chemical treatment of wood - includes chipboard and fibre-board (D21).

G Printing, Coating, Photographic

Specifications with no chemical interest are not included. Thus printing machines and photographic film processing apparatus are excluded, as well as adhesive applicators.

Adhesive processes in the production of specific goods are excluded unless the novelty lies in the adhesive material.

Normally excluded from Section G are polymeric coatings produced by hot melt extrusion e.g. cable coatings (Section A), metallic coatings (Section M) and vitreous enamel coatings (Section L).

Fillers for specific materials are usually classified under the related material section, e.g. Section A, and are excluded from Section G.

Approximate IPCs are given in brackets.

G01	Inorganic pigments and non-fibrous fillers (C09C).
G02	Inks, paints, polishes - polymer based paints and inks are also classified in Section A (C09D, F, G).
G03	Adhesives - excluding dispensers. Polymeric adhesives are also classified in Section A (C09H, J).
G04	Miscellaneous compositions - including luminescent and tenebrescent materials, de-icing/de-misting compositions, mastics, heat transfer compositions and aerosol-can filling mixtures (C09K).
G05	Printing materials and processes (B41M).
G06	Photosensitive compositions and bases; photographic processes - includes photo-resist coatings (G03C).
G07	Photo-mechanical production of printing surfaces (G03F).
G08	Electrography, electrophotography and magnetography (G03G).

H Petroleum

This covers all aspects of the oil and gas industry.

Approximate IPCs are given in brackets.

H01	Obtaining crude oil and natural gas - including exploration, drilling, well completion, producing and treating. General off-shore platform and drilling technology is included together with the treatment of tar sands and oil shales (C10G, E21B).
H02	Unit operations - including distillation, sorption and solvent extraction (C10G).
H03	Transportation and storage - only large scale systems are included. Road tankers and retail petrol station-type applications are excluded. Treatment of pollution from marine oil tankers is included.
H04	Petroleum processing - including treating, cracking, reforming, gasoline preparation and catalysis in general. Biosynthesis based on hydrocarbon feedstocks is included (C10G).
H05	Refinery engineering.
H06	Gaseous and liquid fuels - including pollution control, chemical aspects of catalytic exhaust systems for cars are included together with liquid or gaseous fuels of non-petroleum origin e.g. methanol or ethanol-based fuels. Combustion improvement additives are included if for hydrocarbon fuels (C10L).
H07	Lubricants and lubrication - this excludes self-lubricating surfaces eg PTFE coated surfaces and lubrication systems in general. The section includes lubricants of non-petroleum origin e.g. silicone oils (C10M).
H08	Petroleum products, other than fuels and lubricants - this includes hydraulic fluids and electrical oils even when of non-petroleum origin (C10M, F16N).
H09	Fuel products not of petroleum origin - excluding coal handling, preparation or mining, but including coking briquetting, peat processing and synthesis gas production. Combustion improvement additives for coal, peat and other non-hydrocarbon based fuels are included in this Section together with coal liquefaction and desulphurisation

J Chemical Engineering

Unit processes and/or plant for general application in chemical industries are included in this section, but processes and apparatus for specific applications are excluded.

Approximate IPCs are given in brackets.

J01	Separation - including evaporation, crystallisation, solvent extraction, chromatography, dialysis, osmosis including drying gases and/or vapours, and separation of solids from gases, liquids and other solids. Isotope separation, filter materials (including molecular sieves for separation), and centrifuges (except where used for analysis) (B01D, B03, B04, B07B).
J02	Mixing, crushing, spraying - including dispersing, pulverising, disintegrating, atomising (B01F).
J03	Electrochemical processes and electrophoresis - including ozone production, ozoners, brine electrolysis, electrolysis of water, apparatus for the production of pure chemical compounds and non - metallic elements, but excluding batteries or other means of producing power and the treatment of metals (C25B).
J04	Chemical/physical processes/apparatus - including catalysis, catalysts (including molecular sieves where approximate, but excluding specific e.g. enzymatic or polymerisation catalysts), colloid chemistry, laboratory apparatus and methods, testing, controlling, general encapsulation, detection and sampling (B01J, L).
J05	Boiling and boiling apparatus - including generation of steam unless for power plant (B01B).
J06	Storing or distributing gases or liquids - including gas holders, vessels for gases, decantation and vaporisation of gases, pipelines and pipe systems, but excluding those for hydrocarbon gases or liquids and laying of pipelines (F17).
J07	Refrigeration; ice; gas liquefaction/solidification - including refrigeration machines, freezing of (semi)liquids, refrigerators, gas separation/ liquefaction by cooling or pressure, fractionation of air (F25).
J08	Heat transfer and drying - including steam and vapour condensers, direct/indirect heat exchangers, heat transfer apparatus, drying processes, but only where of general application (F26, F28).
J09	Furnaces, kilns, ovens, retorts including furnace constructional details and accessories, but only where of general application (F27).

K Nucleonics, Explosives, Protection

All aspects of the nuclear industry, chemical aspects of fire fighting, explosives and warfare agents.

Approximate IPCs are given in brackets.

K01	Fire fighting, fire extinguishing compositions -excluding fire engines, sprinkler systems, hose reels and protective clothing (A62D with K2).
K02	Protection against chemical warfare, breathing apparatus - chemical aspects only (A62D with K1).
K03	Explosive charges; ammunition, fuses, blasting including only complete devices, excluding missile systems (F42).
K04	Explosives, matches - including detonators, chemical lighters, pyrophoric compositions, fireworks, distress signals, chemical lasers, smoke generation, gas attack compositions, generation of gas for blasting or propulsion, but only chemical aspects (C06).
K05	Nuclear reactors and simulators - including reactor processes, components and accessories, but excluding power plant (G21B, C).
K06	Nuclear power plant - including reprocessing used nuclear fuel (G21D).
K07	Health physics - including radiation protection (other than against sunlight), monitoring devices, decontamination, radioactive waste disposal and protective clothing (G21F).
K08	Nucleonics; X-ray techniques - including conversion of chemical elements, neutrons, electron beams, cosmic radiation, nuclear explosives and plasma techniques other than electron beam or plasma welding methods and apparatus and X-ray films (G01T, G21G, H, J, K, H05G, H).

L Refractories, Ceramics, Cement, Electro-(in)Organics

Comprehensive coverage of glass and ceramic compositions combined with chemical aspects of electronic devices and optical fibres.

Approximate IPCs are given in brackets.

L01	Glass - includes chemical compositions, batch treatment, furnaces, flat glass forming, hollow-ware forming, post-forming and glass/ceramics, but not lens designs, bottling, bottle-washing, closures for containers, glazing designs, glass cutting, chamfering edges, printing on glass, disposing of used glass or the production of pure sodium silicate. Chemical aspects of optical fibres (C03).
L02	Refractories, ceramics, cement - includes manufacturing methods, limes, soil improvement for (road) building, magnesias and slags, cements, mortars, concretes, abrasives, thermal or acoustic insulation (non)oxide ceramics and ceramic composites, but not brick making, concrete mixers or casting or potters' wheels (C04).
L03	Electro-(in)organic - chemical features of conductors, resistors, magnets, capacitors and switches, electric discharge lamps, semiconductor and other materials, batteries, accumulators and thermo-electric devices, including fuel cells, magnetic recording media, radiation emission devices, liquid crystals and basic electric elements. Growing of single crystals of semi-conductors and their doping are included, but semiconductor devices of which the manufacture is not claimed are not. Electrography, electrophotography, magnetography, electrolysis, electrophoresis, power plant, X-ray and plasma-techniques, ion-exchange resins, polyelectrolytes, electroplating, metal electro-deposition, electroforming, anodising, electrolytic cleaning, cathodic protection and electrolytic or electrothermic production or refining of metals are all covered elsewhere (Sections G, J, K and M).

M Metallurgy

Chemical aspects of metal production, working and finishing including welding and brazing.

Approximate IPCs are given in brackets.

M1	***Metal Finishing***
M11	Electroplating; electrolytic treatment of or with metals - including electro-deposition of metals, electro-plating apparatus, electro-forming, electro-erosion, spark erosion, anodising (electrophoretically coating metals and electrolytic cleaning and polishing (C25D, F).
M12	Chemical cleaning and degreasing - including cleaning and pickling (C23G).
M13	Coating material with metals, diffusion processes, enamelling and vitreous coatings - including coating from liquid metal or solution, spraying, cementation, gas plating and condensation, cathodic sputtering, enamelling and oil-free lubricant coatings, but not coatings for the production of semi-conductors (C23C, D).
M14	Other chemical surface treatments - including etching, brightening, forming non-metallic layers, passivation, cathodic protection and corrosion inhibitors, but not processes specifically for semi-conductor production (C23F).

M2	***Metals***
M21	Mechanical working of metal without metal removal - including rolling sheet, wire, tube and profile production, extended surface tube, high energy rate forming, deep drawing, working sheet metal, rolled products, forging, hammering, pressing, where of sufficiently large scale to be of importance to the metallurgical industry (B21).
M22	Casting; powder metallurgy - including foundry moulding, moulding machines, patterns, moulds, cores and metal casting (B22).
M23	Soldering; welding - including brazing, flame cutting and scarfing, cutting and welding rods, soldering and unsoldering apparatus and solder compositions (B23K).
M24	Metallurgy of iron and steel - including manufacture and processing, treatment of steel melts and changing the physical properties of iron and steel, control/testing methods, blast furnaces and converters. Metallurgical coking processes (C21, C10B).
M25	Production and refining of metals other than iron - including ore treatment, extraction, working up scrap, obtaining specific metals, control/testing methods (C22B).
M26	Non-ferrous alloys - including alloy production and composition (C22C).
M27	Ferrous alloys - including alloy production and composition (C22C).
M28	Electrolytic and electrothermic production and refining of non-ferrous metals -excluding heat treatment (C25).
M29	Changing the physical structure of non-ferrous metals and alloys - including tempering, annealing, work-hardening and recrystallising (C22F).

Engineering Classification

Main Sections

Engineering patents currently covered by Thomson Scientific are selected for inclusion in one or more of the following 15 sections based upon the International Patents Classification (IPC) shown in brackets.

P General

P1	Agriculture, Food, Tobacco (A01 excluding N, A24).
P2	Personal, Domestic (A41-A47).
P3	Health, Amusement (A61-A63, excluding A61K).
P4	Separating, Mixing (B02-B09).
P5	Shaping Metal (B21-B23).
P6	Shaping Non-metal (B24-B28).
P7	Pressing, Printing (B30- B32, B41-B44).
P8	Optics, Photography; General (G02, G03, G09, G10).

Q Mechanical

Q1	Vehicles in General (B60).
Q2	Special Vehicles (B61-B64).
Q3	Conveying, Packaging, Storing (B65-B68).
Q4	Buildings, Construction (E).
Q5	Engines, Pumps (F01-F15)
Q6	Engineering Elements (F16-17).
Q7	Lighting, Heating (F21-F28, F41-F42).

Classes

These 15 Sections are broken down into 103 finer IPC-based Classes so as to narrow the subject matter still further into finer profiles for greater precision.

Classification is made automatically by computer, based on the IPCs on the specification or, where not present as for the Research Disclosure items, on Thomson Scientific-assigned IPCs. Where a patent falls into more than one of the Sections P or Q, it will be placed in each, and may also occur in one or more of the Chemical Sections A-M or Electronic and Electrical Sections S-X.

Unlike the Chemical Classification, an equivalent may introduce a fresh P or Q Class (which is then added to the master record) if it has a fresh IPC which is outside the range of IPCs covered by the Classes already assigned to the patent family.

P General

Human necessities, performing operations - all IPC A excluding A01N, A21, A23, A61K; All IPC B02-B44, excluding B29. All IPC G02, G03, G09, G10.

The IPCs aregiven in brackets.

P1	***Agriculture, Food, Tobacco***
P11	Soil working, planting (A01B, C).
P12	Harvesting (A01D, F).
P13	Plant culture, dairy products (A01G, H, J).
P14	Animal care (A01K, L, M).
P15	Tobacco (A24).

P2	***Personal, Domestic***
P21	Wearing apparel (A41, 2).
P22	Footwear (A43).
P23	Haberdashery, jewellery (A44).
P24	Hand, travelling articles, brushes (A45, 6).
P25	Office furniture (A47B).
P26	Chairs, sofas, beds (A47C, D).
P27	Shop, household, furnishings ((A47F, G, H).
P28	Kitchen, sanitary equipment (A47J, K, L).

P3	***Health, Amusement***
P31	Diagnosis, surgery (A61B).
P32	Dentistry, bandages, veterinary, prosthesis (A61C, D, F).
P33	Medical aids, oral administration (A61G, H, J).
P34	Sterilising, syringes, electrotherapy (A61L, M, N).
P35	Life-saving, fire-fighting (A62).
P36	Sports, games, toys (A63).

P4	***Separating, Mixing***
P41	Crushing: centrifuging, separating solids (B02, 3, 4).
P42	Spraying, atomising (B05).
P43	Sorting, cleaning, waste disposal (B06, 7, 8, 9).

P5	***Shaping Metal***
P51	Rolling, drawing, extruding (B21B, C).
P52	Metal punching, working, forging (B21D-L).
P53	Metal casting, powder metallurgy(B22).
P54	Metal milling, machining, electroworking (B23B-H).
P55	Soldering, welding metal (B23K).
P56	Machine tools (B23P,Q).

P6	***Shaping Non-Metal***
P61	Grinding, polishing (B24).
P62	Hand tools, cutting (B25, 6).
P63	Working, preserving wood (B27).
P64	Working cement, clay, stone (B28).

P7	***Pressing, Printing***
P71	Presses (B30).
P72	Working paper (B31).
P73	Layered products (B32).
P74	Printing: lining machines (B41B - G).
P75	Typewriters, stamps, duplicators (B41J-N).
P76	Books, special printed matter (B42).
P77	Writing, drawing appliances (B43).
P78	Decorative art (B44).

P8	***Optics, Photography, General***
P81	Optics (G02).
P82	Photographic apparatus (G03B).
P83	Photographic processes, compositions (G03C).
P84	Other photographic (G03D-H).
P85	Education, cryptography, adverts. (G09).
P86	Musical instruments, acoustics (G10).

Q Mechanical

Mechanical Engineering - all IPC B60-B68, E and F.

The IPCs are given in brackets.

Q1	*Vehicles in General*
Q11	Wheels, tyres, connections (B60B-F).
Q12	Suspension, heating, doors, screens (B60G-J).
Q13	Transmissions, controls (B60K).
Q14	Electric propulsion, seating (B60L-N).
Q15	Transporting special loads (B60P).
Q16	Vehicle lighting, signalling (B60Q).
Q17	Vehicle parts, fittings, servicing (B60R,S).
Q18	Brake-control systems (B60T).
Q19	Air-cushion vehicles (B60V).

Q2	*Special Vehicles*
Q21	Railways (B61).
Q22	Hand, motor vehicles (B62B-D).
Q23	Cycles B62H-M).
Q24	Ships (B63).
Q25	Aircraft; aviation; cosmonautics (B64).

Q3	*Conveying, Packaging, Storing*
Q31	Packaging, labelling (B65B, C).
Q32	Containers (B65D01-37).
Q33	Closures (B65D39-55).
Q34	Packaging elements, types (B65D57-91).
Q35	Refuse collection, conveyors (B65F, G).
Q36	Handling thin materials (B65H).
Q37	Container traffic (pre-1984 only) (B65H).
Q38	Hoisting, lifting, hauling (B66).
Q39	Liquid, handling, saddlery, upholstery (B67, 8).

Q4	***Buildings, Construction***
Q41	Road, rail, bridge construction (E01).
Q42	Hydraulic engineering, sewerage (E02, 3).
Q43	General building constructions (E04B).
Q44	Structural elements (E04C).
Q45	Roofing; stairs, floors (E04D, F).
Q46	Building aids, special structures (E04G, H).
Q47	Locks, window, door fittings (E05).
Q48	Blinds, shutters, ladders, doors (E06).
Q49	Mining (E21).

Q5	***Engines, pumps***
Q51	Machines, engines in general (F01).
Q52	Combustion engines, gas turbines (F02B-G).
Q53	Jet engines, fuel supply (F02K, M).
Q54	Starting, ignition (F02N, P).
Q55	Machines, engines for liquids (F03).
Q56	Pumps (F04).
Q57	Fluid-pressure actuators (F15).

Q6	***Engineering Elements***
Q61	Securing machine parts together (F16B).
Q62	Shafts, bearings (F16C).
Q63	Couplings, clutches, brakes, springs (F16D, F).
Q64	Belts, chains, gearing (F16G, H).
Q65	Pistons, cylinders, packing (F16J).
Q66	Valves, taps cocks (F16K).
Q67	Pipes, joints, fittings (F16L).
Q68	Other engineering elements (F16M-T).
Q69	Storing/distributing gas/liqui7d (F17).

Q7	*Lighting, Heating*
Q71	Lighting (F21).
Q72	Steam generation (F22).
Q73	Combustion equipment/processes (F23).
Q74	Heating, ranges, ventilating (F24).
Q75	Refrigeration, liquefaction (F25).
Q76	Drying (F26).
Q77	Furnaces, kilns, ovens, retorts (F27).
Q78	Heat exchange in general (F28).
Q79	Weapons, ammunition, blasting (F41-2).

Electronic and Electrical Classification

Main sections

Electrical and electronics patents covered by Thomson Scientific are selected for inclusion in one or more of the following 6 Sections:

Table 27 Six sections of the Electronic and Electrical Classification

S	Instrumentation, Measuring and Testing
T	Computing and Control
U	Semiconductors and Electronic Circuitry
V	Electronic Components
W	Communications
X	Electric Power Engineering

Classes

These 6 Sections are broken down into 50 Classes. These Classes are assigned by Thomson Scientific according to the technical content as disclosed in the basic specification and take into account all the claims, particularly references to electrical applications, even when the main subject matter is chemical or mechanical in nature. Where any patent specification falls logically into more than one Section of the Electronic and Electrical Classification it will be included in each of these Sections. Thus a patent involving a TV receiver line output transformer will be included in Classes V2 and W3.

The Sections are broken down into 50 well-defined Classes. These are not intended to serve as a coding or retrieval tool, but to break down the subject matter simply and unambiguously into a number of profiles for greater precision.

Electronic and Electrical patents may also occur in one or more of the Chemical Sections (A-M) or Engineering Sections (P, Q).

Basic documents are selected for inclusion in the Electronic aid and Electrical Classification based mainly on their relevance to electronic and electrical industries. This means, for example that documents bearing the following IPCs are normally included: A61N, B60L, B60M, G01, G02F, G03G, G04, G05 (not G05G), G06, G07, G08, G09G, G10H, G11, G12, G21B and all IPC H.

In addition, we select from all other basics and include those of relevance to the electrical/electronic industries irrespective of assigned IPC.

All equivalents are regarded as falling within the same classes of Sections S-X as the parent document. Approximate IPCs are given in brackets.

S Instrumentation, Measuring and Testing

Includes electrical aspects of medical equipment, photographic and printing apparatus.

S01	Electrical Instruments (G01R, G12B) Measuring magnetic and electrical variables. Instrument panels, housings, indicating elements, screening, suspensions, damping. Cooling arrangements.
S02	Engineering Instrumentation (G01B-H, L, M, P) Measuring dimensions, weight, flow rate, mechanical vibrations, force, acceleration, etc. Recording equipment. General testing methods.
S03	Scientific Instrumentation (G01J, K, N, T-W) Photometry, calorimetry. Thermometers. Meteorology, geophysics, measurement of nuclear or X-radiation. Investigating chemical or physical properties.
S04	Clocks and Timers (G04B-G) Electronic and mechanical clocks and watches. Time switches. Time-interval measuring.
S05	Electrical Medical Equipment (A61, A61N) Electrotherapy. Electrosurgical apparatus. Blood cell counters. Electrical diagnostic apparatus. Tomography. Veterinary apparatus.
S06	Electrophotography and Photography (G03) Cameras, film projectors and processing (electrical aspects only). Electrography, xerography.

T Computing and Control

Covers control systems, data recording equipment, computing devices, peripheral apparatus including construction details.

T01	Digital Computers (G06C-F,N,Q) Electronic data processors, interfaces and programme control. Mechanical digital computers.
T02	Analogue and Hybrid Computers (G06G, J) Function evaluators, equation solvers, simulators.
T03	Data Recording (G11B) Analogue and digital recording on tape, disc etc, using for example, magnetic, optical, magneto-optical, capacitive methods.
T04	Computer Peripheral Equipment (G06K) Card and tape punches and readers. Serial and line printers. VDUs, character and graphics generators. Pattern recognition, magnetic ink recognition, bar coders. COM equipment.
T05	Counting, Checking, Vending, ATM and POS Systems (G06M, G07B-G) Counting systems. Ticket issuing, registering and franking apparatus. Attendance registering apparatus. Coin and paper currency handling.
T06	Process and Machine Control (G05B, D, G) Machine tool, press, lift and hoist control. General control circuits. Automated assembly.
T07	Traffic Control Systems (G08G) Traffic light systems, flow control. Electronic indicators.

U Semiconductor and Electronic Circuitry

Includes semiconductor components *per se*, their manufacture and circuitry. Circuits using electronic components are included, e.g. filters and oscillators.

U11	Semiconductor Materials and Processors (C30B, H01L) Materials, doping, deposition, etching, masking. Mounting, packaging, testing.
U12	Discrete Devices (H01L) Diodes, photodiodes, LEDs, Zener diodes, semiconductor lasers. Bipolar and field effect transistors, thyristors. Solar cells. Hall Effect devices.
U13	Integrated Circuits (H01L) Uni and bi-polar analogue and digital circuits. Charge transfer devices.
U14	Memories, Film and Hybrid Circuits (G11C, H01L) Semiconductor, magnetic bubble and magnetic core memories. Thick and thin film circuits. Surface acoustic wave devices. Josephson Effect and thermoelectric devices. Liquid crystal displays. Electroluminescent light sources.
U21	Logic Circuits, Electronic Switching and Coding (H03K, M) Basic logic circuits, eg AND-gates. A/D and D/A conversion. Delta modulation, coding, code conversion, error detection and correction. Pulse counters, frequency conversion. Electronic switching circuits.
U22	Pulse Generation and Manipulation (H03K, L) Rectangular wave oscillators, pulse generators. Pulse shapers. Digital waveform synthesisers. PAM, PPM, PFM, PDM and demodulation. Digital filters.
U23	Oscillation and Modulation (H03B-D, H03L) Oscillators, mixers. Amplitude and angle (de)modulation. Frequency and phrase comparators.
U24	Amplifiers and Low Power Supplies (H03F, H03G, G05F, H02M) DC, LF and HF amplifiers, parametric, magnetic, dielectric amplifiers. Gain control. Volume compression or expansion. Limiters. Voltage and current stabilisation, power supplies, converters, inverters.
U25	Impedance Networks and Tuning (H03H, H03J) Tone or bandwidth control. Equalisers. Analogue filters. Voltage dividers. Tuners. AFC.

V Electronic Components

Includes electrical and electro-optical components. Component mounting and construction details. Electrical discharge devices, for purposes other than lighting, are included.

V01	Resistors and Capacitors (H01C, G) Low power fixed and variable devices. Thermistors. VDRs.
V02	Inductors and Transformers (H01F) Low power transformers, magnets, cores, coils, housings.
V03	Switches, Relays (H01H) Low power switches and relays. Thermally or magnetically operated switches.
V04	Printed Circuits and Connectors (H01R, H05K) PCBs and mountings. Low power connectors, plugs, sockets, terminals, edge connectors. Insulation strippers. Component lead shaping apparatus.
V05	Valves, Discharge Tubes and CRTs (H01J, H05G) Vacuum tubes, klystrons, TWTs, magnetrons, CRTs, camera tubes, X-ray tubes and operating circuits. Photoelectric discharge tubes. Gas filled tubes. Gas discharge displays.
V06	Electromechanical Transducers and Small Machines (H04R, H03H, H02K) Piezo-electric devices, quartz resonators. Electro - and magneto-strictive devices. Microphones, pick-ups, loudspeakers, ear-pieces. Moving coil and moving iron transducers Electrostatic and variable resistance transducers. Small electric motors.
V07	Fibre Optics and Light Control (G02B, F) Light guides. Connectors, couplers, mode selectors, polarisers. Switching, gating, modulating etc.
V08	Lasers and Masers (H01S) Laser and maser devices. Pumping and mode locking circuitry.

W Communications

Covers telecommunications, audio and video equipment, telemetry/telecontrol and radar, aviation, marine and military systems where electrical details are included.

W01	Telephone and Data Transmission Systems (H04L, M, Q) Exchanges, call metering, test equipment, equipment racks. Subscriber equipment. Telephone line and cable installation.
W02	Broadcasting, Radio and Line Transmission Systems (H01P, Q, H04, H04K) Aerials, waveguides, resonators and other microwave components. Transmitters, transceivers, transponders. Communication receivers. Line transmission systems. Diversity systems. IR or ultrasonic wave transmission systems. Secret communication, jamming. Facsimile. TV systems, including colour, stereoscopic, cable, subscription, satellite. Stereophonic systems.
W03	TV and Broadcast Radio Receivers (H04) AM/FM/SW radio receivers. B/W and colour TV receivers. Teletext. Remote control.
W04	Audio/Video Recording and Systems (G10H, G11B, H04N) Loudspeaker enclosures, cross-over networks. Audio disc recording and reproducing equipment. Audio magnetic tape recording and reproduction. Sound mixers. Electrical musical instruments. Studio equipment eg TV cameras, video mixers, projection apparatus. Video tape and disc recording and reproduction. Video games. Electronic educational apparatus.
W05	Alarms, Signalling, Telemetry and Telecontrol (G08B, C) Burglar and fire alarms. Personal calling arrangements, mechanical indicators. Signal transmission systems. Advertising arrangements (electrical aspects).
W06	Aviation, Marine and Radar Systems (G01S) Radar. Velocity and depth measuring equipment. Airport control systems. Ship and aircraft lighting and instrumentation. Generators and control systems. Flight simulators. Space vehicles, including satellites.
W07	Electrical Military Equipment and Weapons (F41) Target indicating systems. Fighting devices. Missile direction control. Military training equipment. Arming and safety devices.

X Electric Power Engineering

Includes power generation, storage, distribution and utilisation. Electrical details of ground vehicles. Industrial-use patents with significant electrical detail are included. Patents relating to domestic electrical appliances do not have to contain electrical novelty to be included.

X11	Power Generation and High Power Machines (H02K, N) Power generating prime movers. Dynamo-electric and MHD generators. Electric motors.
X12	Power Distribution/Components/Converters (H01B, H01T, H02G, H02J, H02M) Power and communication cables Cryogenic conductors. Installing power cables and lines. Power transformers, reactors. Arcing horns. Insulators. Power convertors.
X13	Switchgear, Protection, Electric Drives (H02B, H02H, H02P) Motor and generator control. Switchboards, switchyards, switch gear. Circuit protectors, circuit breakers, fuses.
X14	Nuclear Power Generation (G21, H05H) Nuclear reactors and power plants. Control mechanisms.
X15	Non-Fossil Fuel Power Generating Systems (F03D, F24J) Wind, wave and solar energy, driven power generators and control equipment.
X16	Electrochemical Storage (H01M) Primary, secondary and fuel cells and batteries. Battery chargers. Electric energy storage in hydraulic or pneumatic energy form. Electric storage heaters and control circuitry.
X21	Electric Vehicles (B60L) Electric cars, trolley buses. Propulsion, braking. Power supply lines, current collectors. Control equipment.
X22	Automotive Electrics (F02P) Vehicle lighting. IC engine ignition. Speed fuel injection and exhaust control systems. Starting motors and generators. Instrumentation.
X23	Electric Railways and Signalling (B61) Propulsion, power and distribution, signalling, control.
X24	Electric Welding (B23K) Electric soldering. Arc, induction, electron beam, laser beam and HF welding. Electroerosion.

X25	Industrial Electric Equipment (H05B, F27) Electric furnaces and kilns. Resistance, induction, electric discharge and e.m. field heating. Electrochemical processes. Electrostatic spraying and cleaning. Vibrating apparatus. Electrolytic processes. Electro-refining metals. Electrically powered tools. Industrial drying equipment. Ore separating magnets. Magnetic work holders. Lifting magnets. Sewing machines.
X26	Lighting (F21, H01J, H01K) Discharge, incandescent and electric arc lamps. Operating and control equipment. Portable lighting devices. Stage lighting equipment.
X27	Domestic Electric Appliances (A47, F24) Washing machines, dryers, irons. Vacuum cleaners. Electric cookers, microwave ovens. Kitchen equipment. Refrigerators. Water heaters. Space heating and air conditioning equipment. Electric razors.

Appendix 7 – Thomson Scientific Data Elements Summary Table

Authority	Code	Kind	Abstract		Manual Coding		"BCE" Indexing	DCR Indexing	"A" Deep Indexing
			CLS	Eng	CLS	Eng			
Argentina	AR	*[1974-1976 only]*	Title only	Title only	y	y	-	-	-
Austria	AT	A,B	Abstract	Title only	y	y	y	y	y
Australia	AU	A,B	Abstract	Abstract	y	y	y	y	y
Belgium	BE	A, A0, A3, A4, A5, A6, A7	Abstract	Abstract	y	y	y	y	y
Brazil	BR	A	Abstract	Title only	y	y	-	-	-
Canada	CA	A1, C, E	Abstract	Abstract	y	y	y	y	y
China	CN	A, C	Abstract	Abstract	y	y	-	-	-
Czechoslovakia	CS	A,B	Abstract	Abstract	y	y	-	-	-
Czech Rebulic	CZ	A3, B6	Title only	Title only	y	y	-	-	-
Denmark	DK	A, B	Abstract	Title only	y	y	-	-	-
European	EP	A1, A2	Abstract	Abstract	y	y	y	y	y
Finland	FI	A, B1	Title only	Title only	y	y	-	-	-
France	FR	A1, A2, A3	Abstract	Abstract	y	y	y	y	y
Germany	DE	A1, C1, C2, U1	Abstract	Abstract	y	y	y	y	y
Hungary	HU	A, A1, A2, B, H, T	Abstract	Title only	y	y	-	-	-
India	IN	A, K1, K2, K3	Abstract	Abstract	y	y	y	y	y
Ireland	IE	B, B3	Abstract	Abstract	y	y	y	y	y
Israel	IL	A	Abstract	Title only	y	y	-	-	-
Italy	IT	B	Title only	Title only	y	y	-	-	-
Japan	JP	A B1, B2	Abstract	Abstract	y	y	y	y	y
Korea	KR	A, B, B1, B2	Abstract	Abstract	y	y	-	-	-
Luxembourg	LU	A	Abstract	Title only	y	y	-	-	-
Mexico	MX	A, A1, A2, B	Abstract	Abstract	y	y	-	-	-
Netherlands	NL	A, B, C2, C6	Abstract	Abstract	y	y	y	y	y
New Zealand	NZ	A	Abstract	Abstract	y	y	y	y	y

Authority	Code	Kind	Abstract		Manual Coding		"BCE" Indexing	DCR Indexing	"A" Deep Indexing
			CLS	Eng	CLS	Eng			
Norway	NO	A, B1	Title only	Title only	y	y	-	-	-
PCT	WO	A1, A2	Abstract	Abstract	y	y	y	y	y
Philippines	PH	A	Abstract	Abstract	y	y	-	-	-
Portugal	PT	A	Abstract	Title only	y	y	-	-	-
Res. Discl.	RD	A	Abstract	Abstract	y	y	-	-	-
Romania	RO	B, B1	Abstract	Abstract	y	y	-	-	-
Russia	RU	C, C1	Abstract	Abstract	y	y	-	-	-
Singapore	SG	A1	Abstract	Abstract	y	y	-	-	-
Slovakia	SK	A3, B6	Abstract	Title only	y	y	-	-	-
South Africa	ZA	A, AA	Abstract	Abstract	y	y	y	y	y
Spain	ES	A1, A2, A6, B1, T1, T3	Abstract	Title only	y	y	-	-	-
Sweden	SE	A, B, C2, C6	Abstract	Abstract	y	y	y	y	y
Switzerland	CH	A3, A5, B5	Abstract	Abstract	y	y	y	y	y
Taiwan	TW	A	Abstract	Abstract	y	y	-	-	-
UK	GB	A	Abstract	Abstract	y	y	y	y	y
USA	US	A, H	Abstract	Abstract	y	y	y	y	y

Annex 1 – Patent Cooperation Treaty Contracting States[1]
(status as of December 2006)

STATE (CODE)	DATE
Albania (AL)	04.10.1995
Algeria[2] (DZ)	08.03.2000
Antigua and Barbuda (AG)	17.03.2000
Armenia (AM)[2]	25.12.1991
Australia (AU)	31.03.1980
Austria (AT)	23.04.1979
Azerbaijan (AZ)	25.12.1995
Barbados (BB)	12.03.1985
Belarus (BY)[2]	25.12.1991
Belgium (BE)	14.12.1981
Belize (BZ)	17.06.2000
Benin (BJ)	26.02.1987
Bosnia & Herzegovina (BA)	07.09.1996
Brazil (BR)	09.04.1978
Bulgaria (BG)	21.05.1984
Burkina Faso (BF)	21.03.1989
Cameroon (CM)	24.01.1978
Canada (CA)	02.01.1990
Central African Republic (CF)	24.01.1978
Chad (TD)	24.01.1978
China(CN)	01.01.1994
Columbia (CO)	29.11.2000
Comoros (KM)	03.04.2005
Congo (CG)	24.01.1978
Costa Rica (CR)	03.08.1999
Cote d'Ivoire (CI)	30.04.1991
Croatia (HR)	01.07.1998
Cuba (CU)[2]	16.07.1996
Cyprus (CY)	01.04.1998
Czech Republic (CZ)	01.01.1993
Democratic People's Republic of Korea (KP)	08.07.1980
Denmark (DK)	01.12.1978
Dominica (DM)	07.08.1999
Ecuador (EC)	07.05.2001
Egypt (EG)	06.09.2003
Equatorial Guinea (GQ)	17.07.2001
Estonia (EE)	24.08.1994
Finland (FI)[3]	01.10.1980
France (FR)[2,4]	25.02.1978
Gabon (GA)	24.01.1978
Gambia (GM)	09.12.1997
Georgia (GE)[2]	25.12.1991
Germany (DE)	24.01.1978
Ghana (GH)	26.02.1997
Greece (GR)	09.10.1990
Grenada (GD)	22.09.1998
Guatemala (GT)	14.10.2006)
Guinea (GN)	27.05.1991

STATE (CODE)	DATE
Guinea-Bissau (GW)	12.12.1997
Honduras (HN)	20.06.2006
Hungary (HU)[2]	27.06.1980
Iceland (IS)	23.03.1995
India (IN)[2]	07.12.1998
Indonesia (ID)[2]	05.09.1997
Ireland (IE)	01.08.1992
Israel (IL)	01.06.1996
Italy (IT)	28.03.1985
Japan (JP)	01.10.1978
Kazakhstan (KZ)[2]	25.12.1991
Kenya (KE)	08.06.1994
Kyrgyzstan (KG)[2]	25.12.1991
Lao People's Democratic Republic (LA)	14.06.2006
Latvia (LV)	07.09.1993
Lesotho (LS)	21.10.1995
Liberia (LR)	27.08.1994
Libyan Arab Jamahiriya (LY)	15.09.2005
Liechtenstein (LI)	19.03.1980
Lithuania (LT)	05.07.1994
Luxembourg (LU)	30.04.1978
Madagascar (MG)	24.01.1978
Malawi (MW)	24.01.1978
Malaysia (MY)[2]	16.08.2006
Mali (ML)	19.10.1984
Malta (MT)	01.03.2007
Mauritania (MR)	13.04.1983
Mexico (MX)	01.01.1995
Monaco (MC)	22.06.1979
Mongolia (MN)	27.05.1991
Montenegro (ME)	01.02.1997
Morocco (MA)	08.10.1999
Mozambique (MZ)[2]	18.05.2000
Netherlands (NL)[5]	10.07.1979
New Zealand (NZ)	01.12.1992
Nicaragua (NI)	06.03.2003
Niger (NE)	21.03.1993
Nigeria (NG)	08.05.2005
Norway (NO)[3]	01.01.1980
Oman (OM)[2]	26.10.2001
Papua New Guinea (PG)	14.06.2003
Philippines (PH)	17.08.2001
Poland (PL)[3]	25.12.1990
Portugal (PT)	24.11.1992
Republic of Korea (KR)	10.08.1984
Republic of Moldova (MD)[2]	25.12.1991
Romania (RO)[2]	23.07.1979
Russian Federation (RU)[2]	29.03.1978
Saint Kitts and Nevis (KN)	27.10.2005

STATE (CODE)	DATE
Saint Lucia (LC)[2]	30.08.1996
Saint Vincent and the Grenadines (VC)[2]	06.08.2002
San Marino (SM)	14.12.2004
Senegal (SN)	24.01.1978
Serbia (RS)	01.02.1997
Seychelles (SC)	07.11.2002
Sierra Leone (SL)	17.06.1997
Singapore (SG)	23.02.1995
Slovakia (SK)	01.01.1993
Slovenia (SI)	01.03.1994
South Africa (ZA)[2]	16.03.1999
Spain (ES)	16.11.1989
Sri Lanka (LK)	26.02.1982
Sudan (SD)	16.04.1984
Swaziland (SZ)	20.09.1994
Sweden (SE)[3]	17.05.1978
Switzerland (CH)	24.01.1978
Syrian Arab Republic (SY)	26.06.2003
Tajikistan (TJ)[2]	25.12.1991
The Former Yugoslav Republic of Macedonia (MK)	10.08.1995
Togo (TG)	24.01.1978
Trinidad and Tobago (TT)	10.03.1994
Tunisia (TN)[2]	10.09.2001
Turkey (TR)	01.01.1996
Turkmenistan (TM)[2]	01.03.1995
Uganda (UG)	09.02.1995
Ukraine (UA)[2]	25.12.1991
United Arab Emirates (AE)	10.03.1999
United Kingdom (GB)[6]	24.01.1978
United Republic of Tanzania (TZ)	14.09.1999
United States of America (US)[7,8]	24.01.1978
Uzbekistan (UZ)[2]	25.12.1991
Viet Nam (VN)	10.03.1993
Zambia (ZM)	15.11.2001
Zimbabwe (ZW)	11.06.1997

[1] All PCT Contracting States are bound by Chapter II of the PCT relating to the international premlininary examination.

[2] With the declaration provided for in PCT Article 64(5)

[3] With the declaration provided for in PCT Article 64(2)(a)(ii).

[4] Including all Overseas Departments and Territories.

[5] Ratification for the Kingdom of Europe, the Netherlands Antilles and Aruba.

[6] Extends to the Isle of Man.

[7] With the declarations provided for in Articles 64(3)(a) and 64(4)(a).

[8] Extends to all areas for which the United States of America has international responsibility.

Index

U

W

Notes