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专利分析其实很有趣

王栋

奥凯信息咨询有限公司

专利分析其实很有趣

故事一

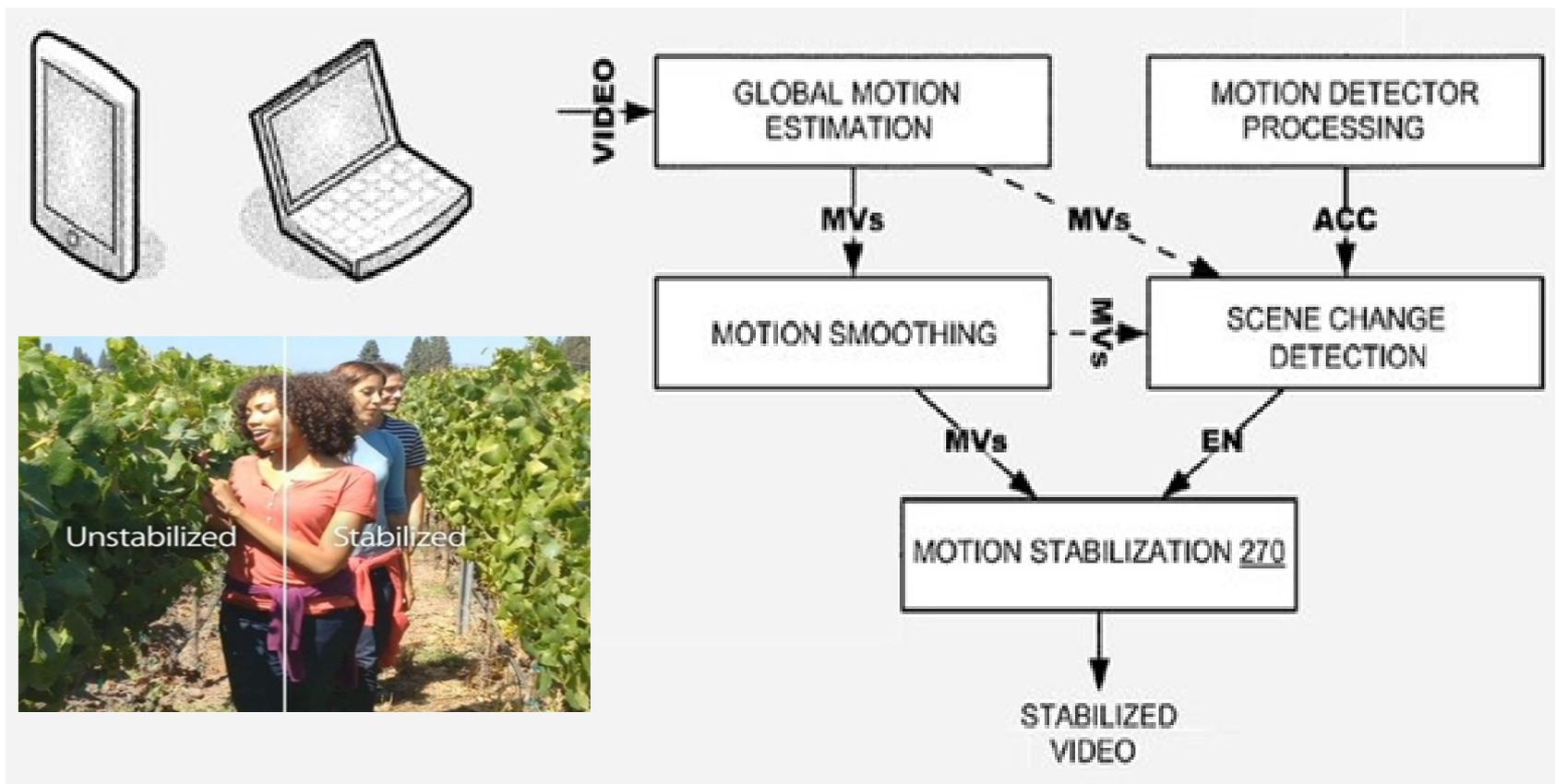
用专利窥探科技背后的奥秘

● 这是什么专利？

US20110234825 A1

ACCELEROMETER / GYRO-FACILITATED VIDEO STABILIZATION

加速度计/陀螺促进视频稳定



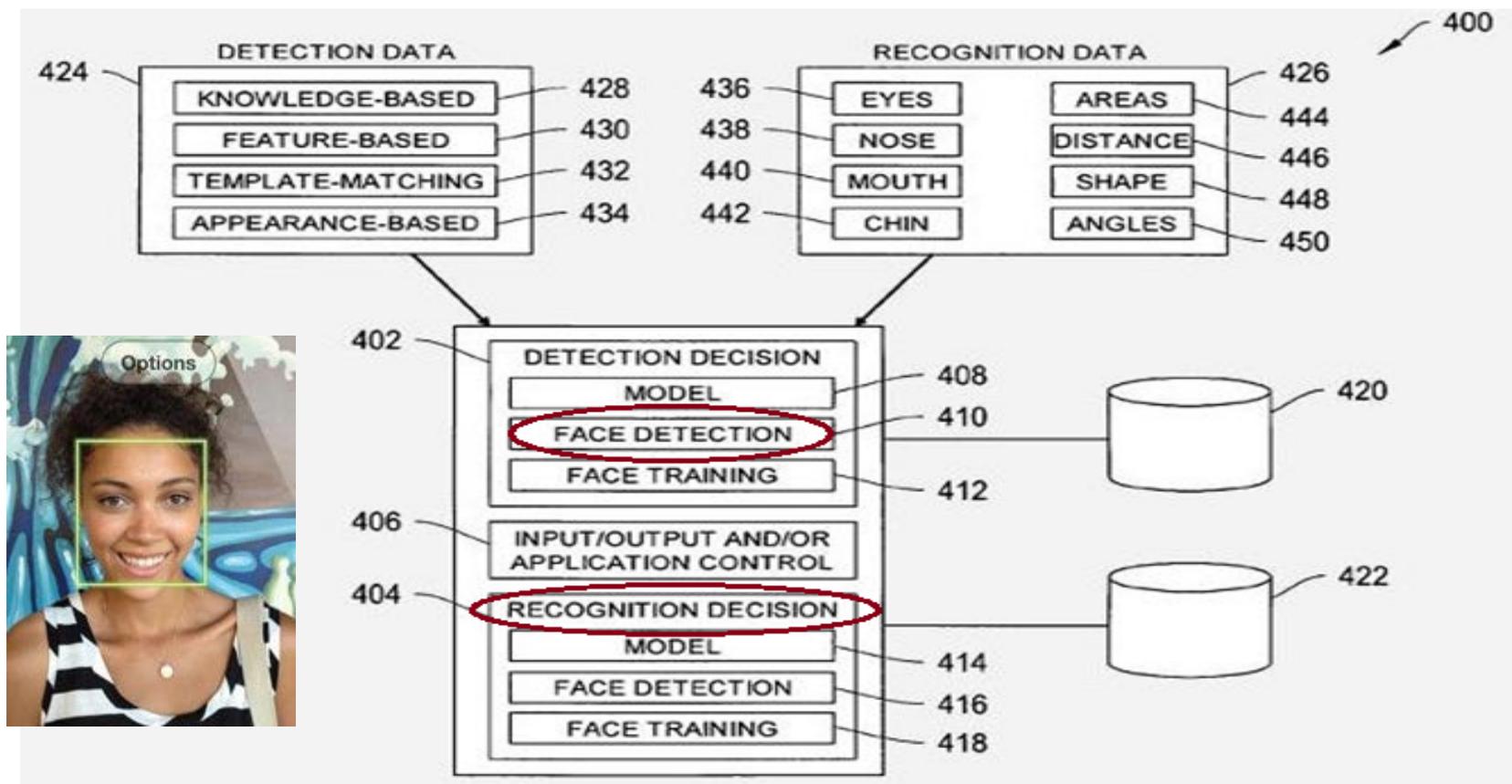
用专利窥探科技背后的奥秘

● 这是什么专利？

US20090175509 A1

Personal computing device control using face detection and recognition

使用人脸检测和识别的个人计算设备

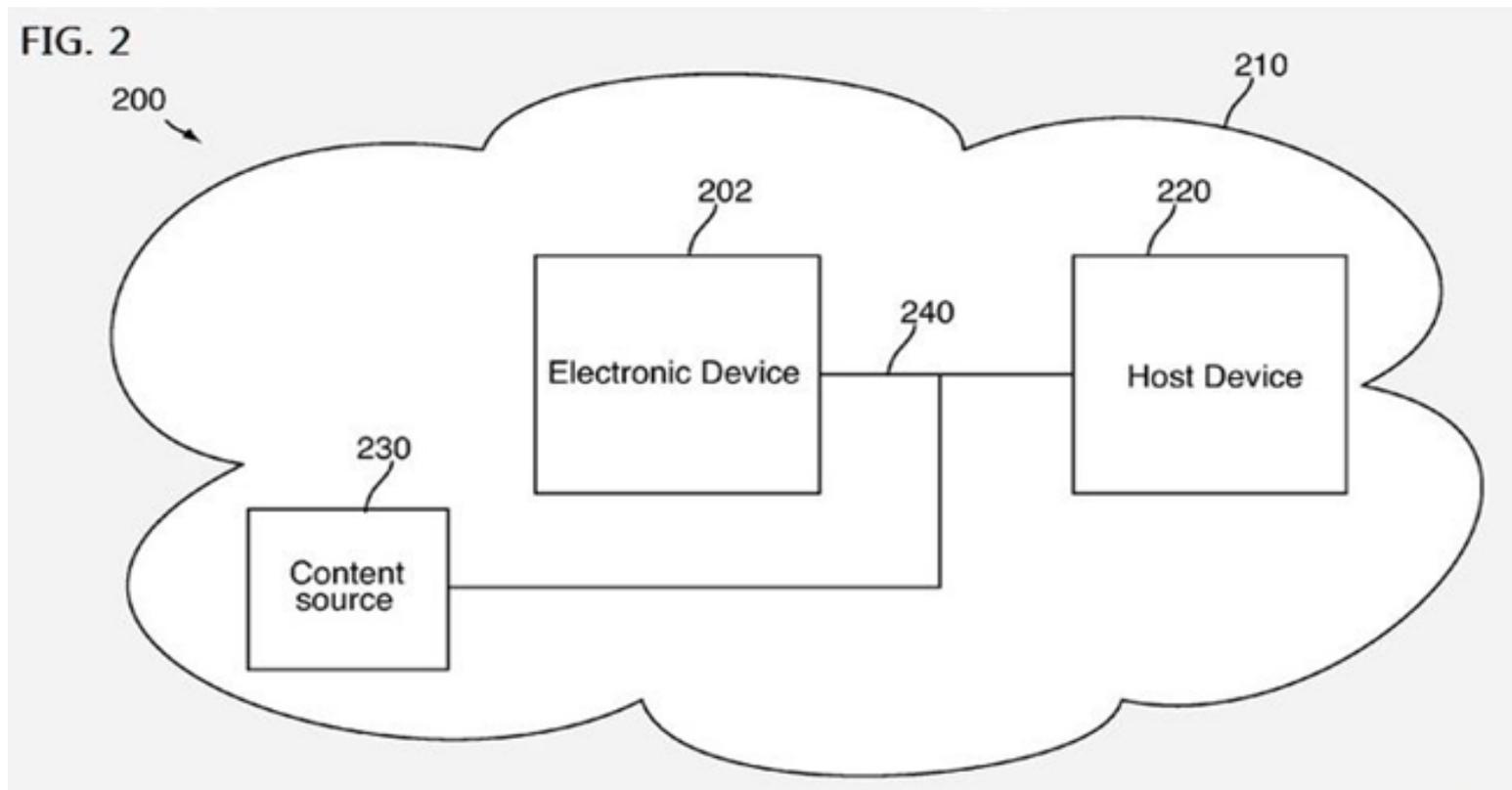


● 这是什么专利？

US20110118858 A1

LOCAL STORAGE OF A PORTION OF STREAMED MEDIA ITEMS

本地存储的部分流媒体项目



用专利窥探科技背后的奥秘

● 这是什么专利？

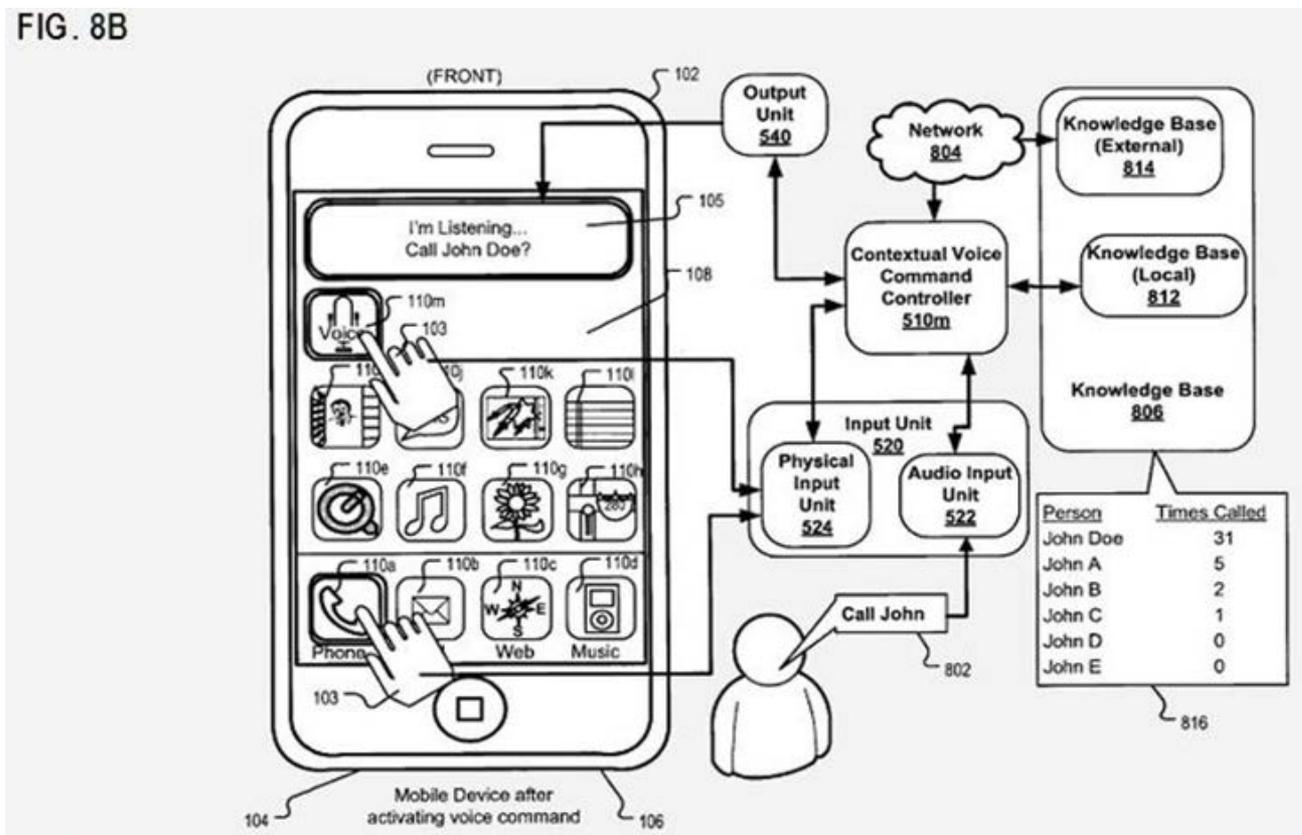
US20100312547 A1

CONTEXTUAL VOICE COMMANDS

语境语音命令



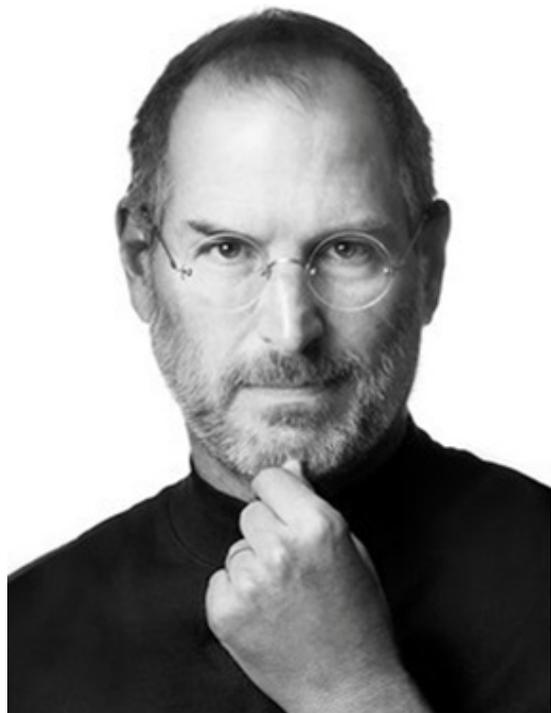
FIG. 8B



用专利窥探科技背后的奥秘

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- 这些是谁的专利？



用专利窥探科技背后的奥秘

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iPhone 4 S

人脸识别

US20090175509

申请日2008-03-06

公开日2009-07-09

电子防抖

US20110234825

申请日2010-04-07

公开日2011-09-29

iCloud

US20110118858

申请日2009-11-13

公开日2011-05-19

Siri

US20100312547

申请日2009-06-05

公开日2010-12-09



用专利窥探科技背后的奥秘

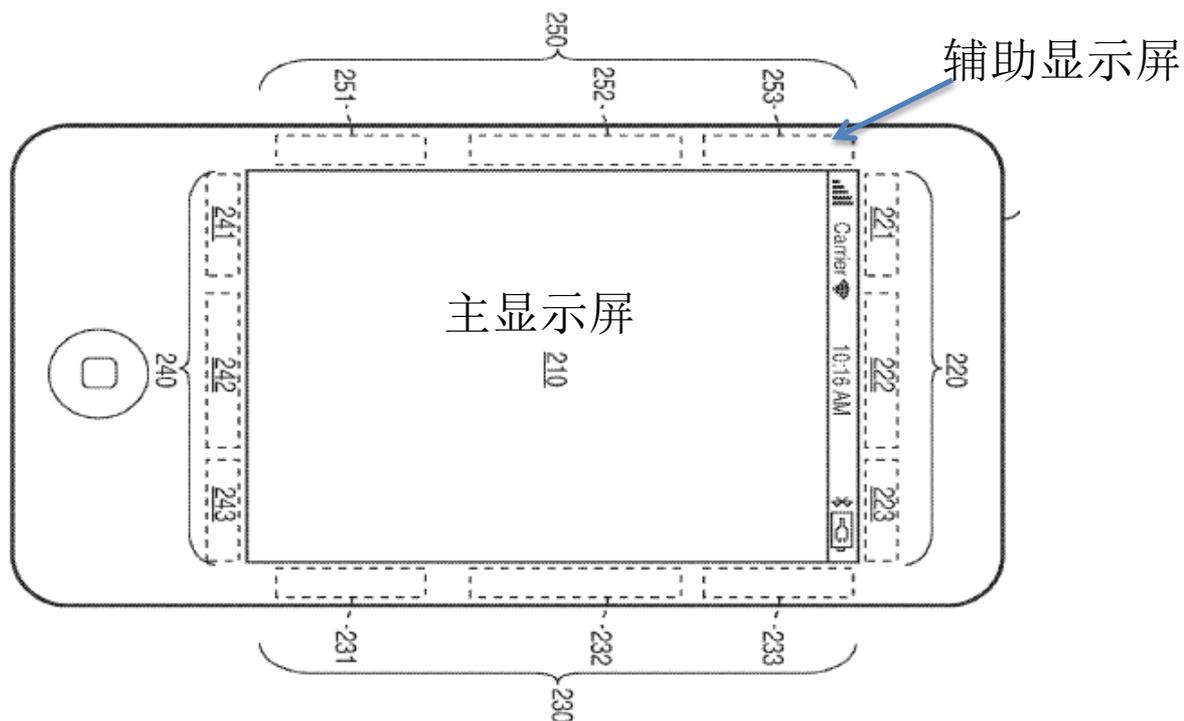
- 未来还有很多期待——新增功能屏？

US20110080348 A1

ELECTRONIC DEVICES WITH A PRIMARY DISPLAY AND A SELECTIVELY ILLUMINATED SECONDARY DISPLAY

一个包含主显示屏和辅助发光显示屏的电子设备

申请日 2009-10-01 公开日 2011-04-07



用专利窥探科技背后的奥秘

- 未来还有很多期待——集成定位导航？

US7891103 B2

Magnetometer accuracy and use

磁力计的精度和应用

申请日 2009-06-05 公开日 2011-02-22

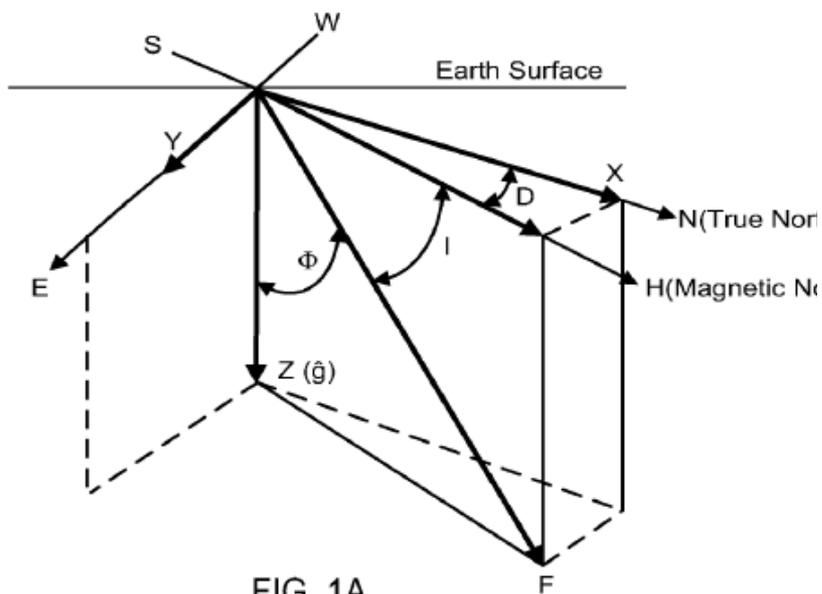
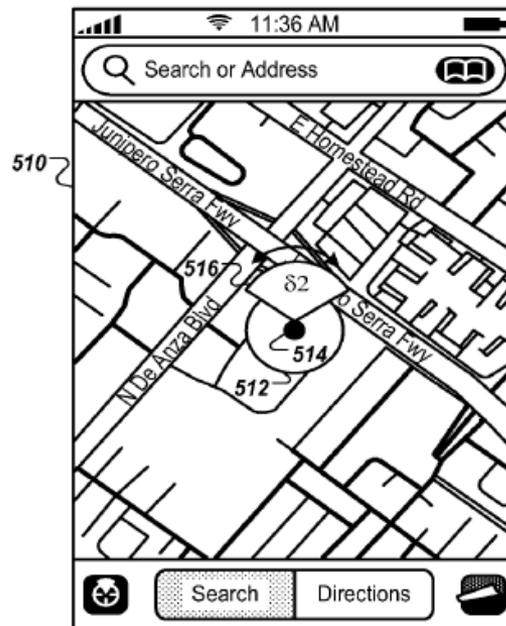


FIG. 1A



- 未来还有很多期待——NFC近距离无线通信？

US8060627 B2

Device-to-device workflows

设备到设备的工作流

申请日：2008-09-30 公开日 2011-11-15

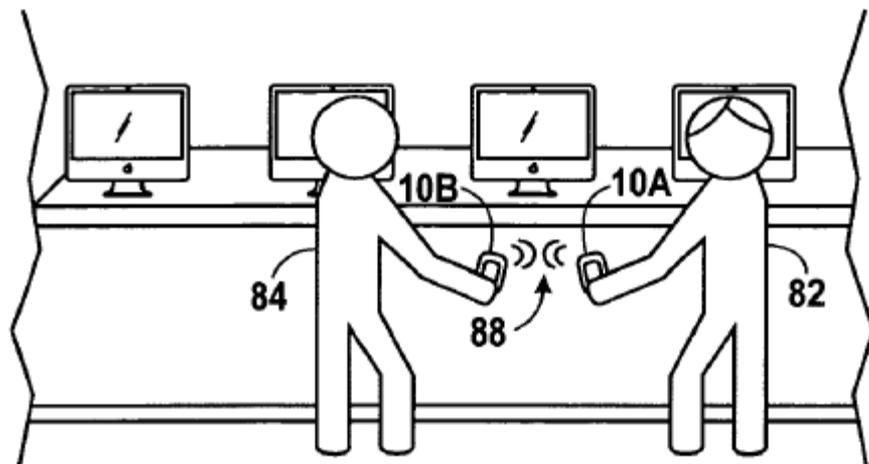
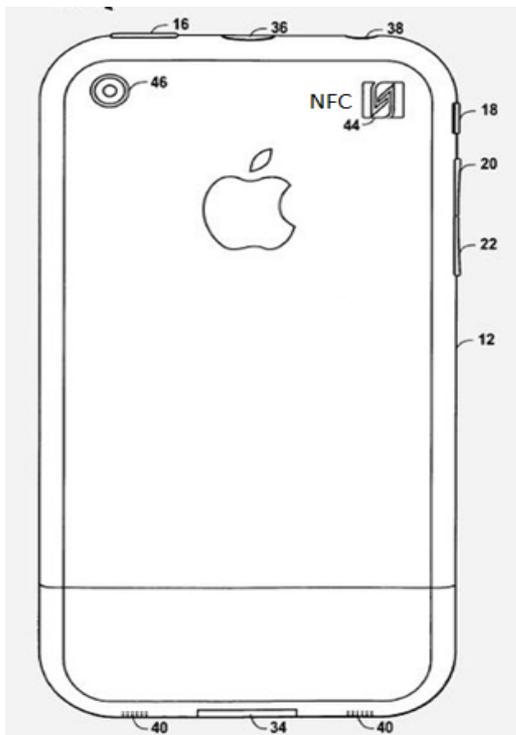


FIG. 4

专利分析其实很有趣

故事二

专利背后的硝烟

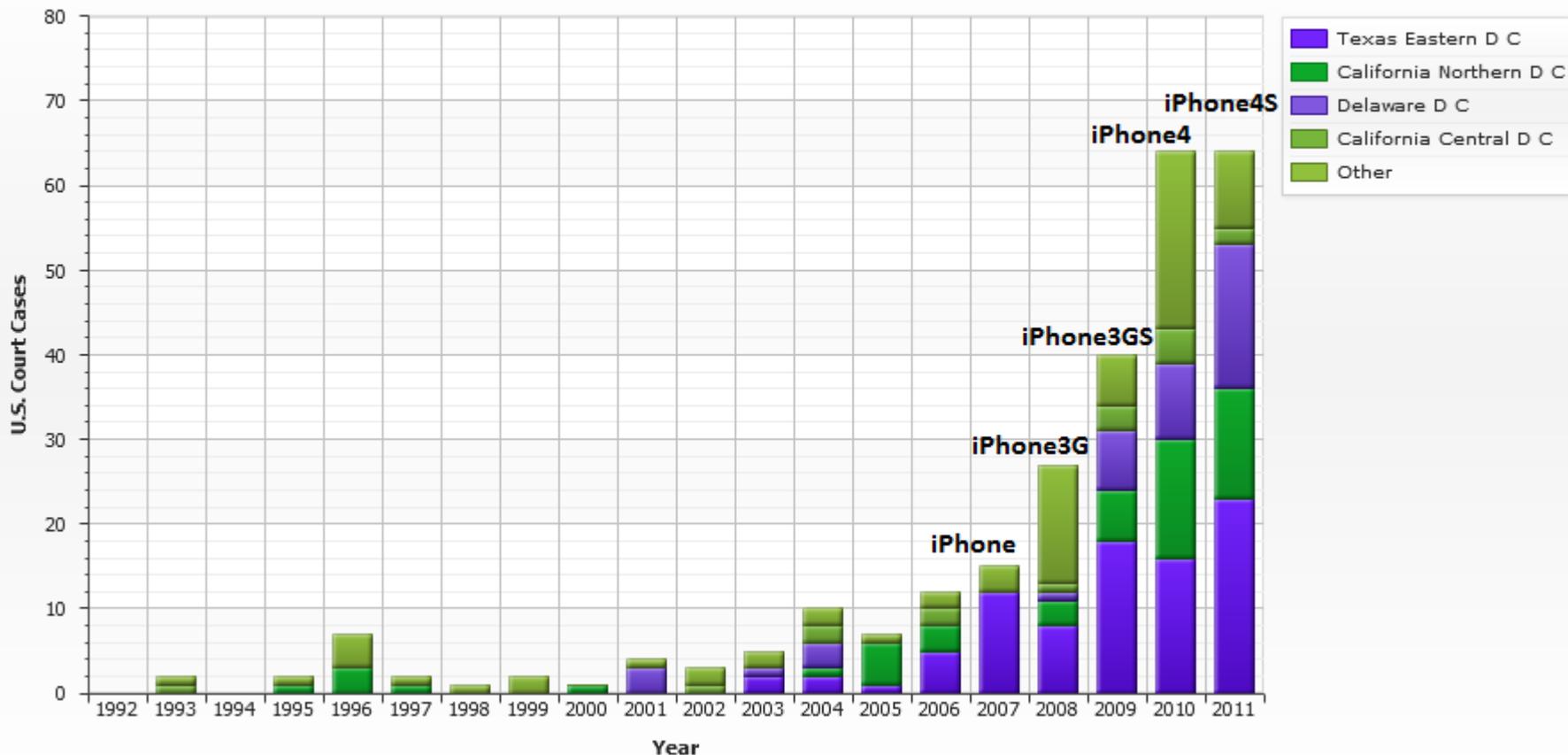


● 苹果的诉讼历史

You searched Litigation Keywords for

Results: 290 Cases, 20 Filed Dates

Case(s) per Court per Filing Year

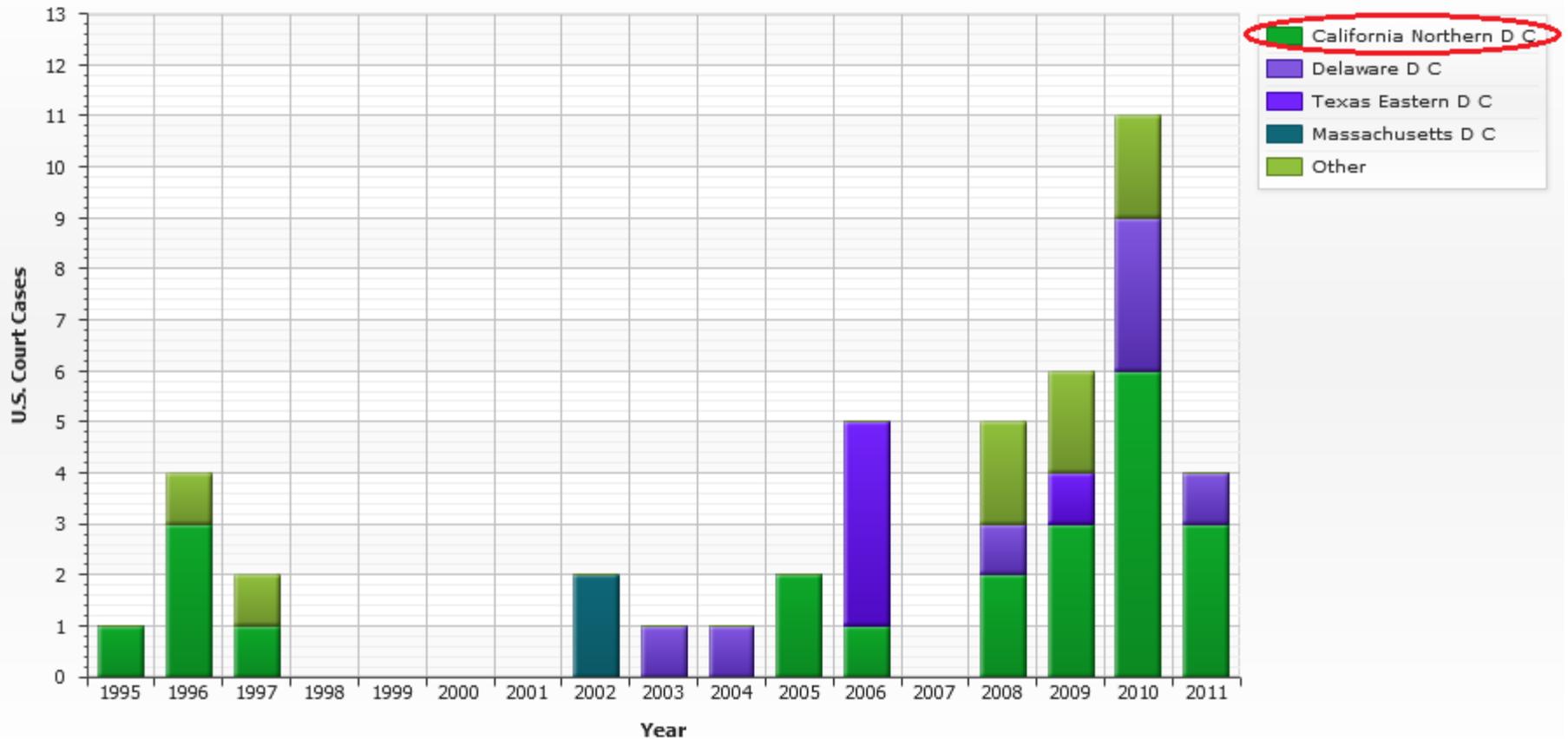


专利背后的硝烟

● 苹果发起的诉讼

Results: 44 Cases, 12 Filed Dates

Case(s) per Court per Filing Year

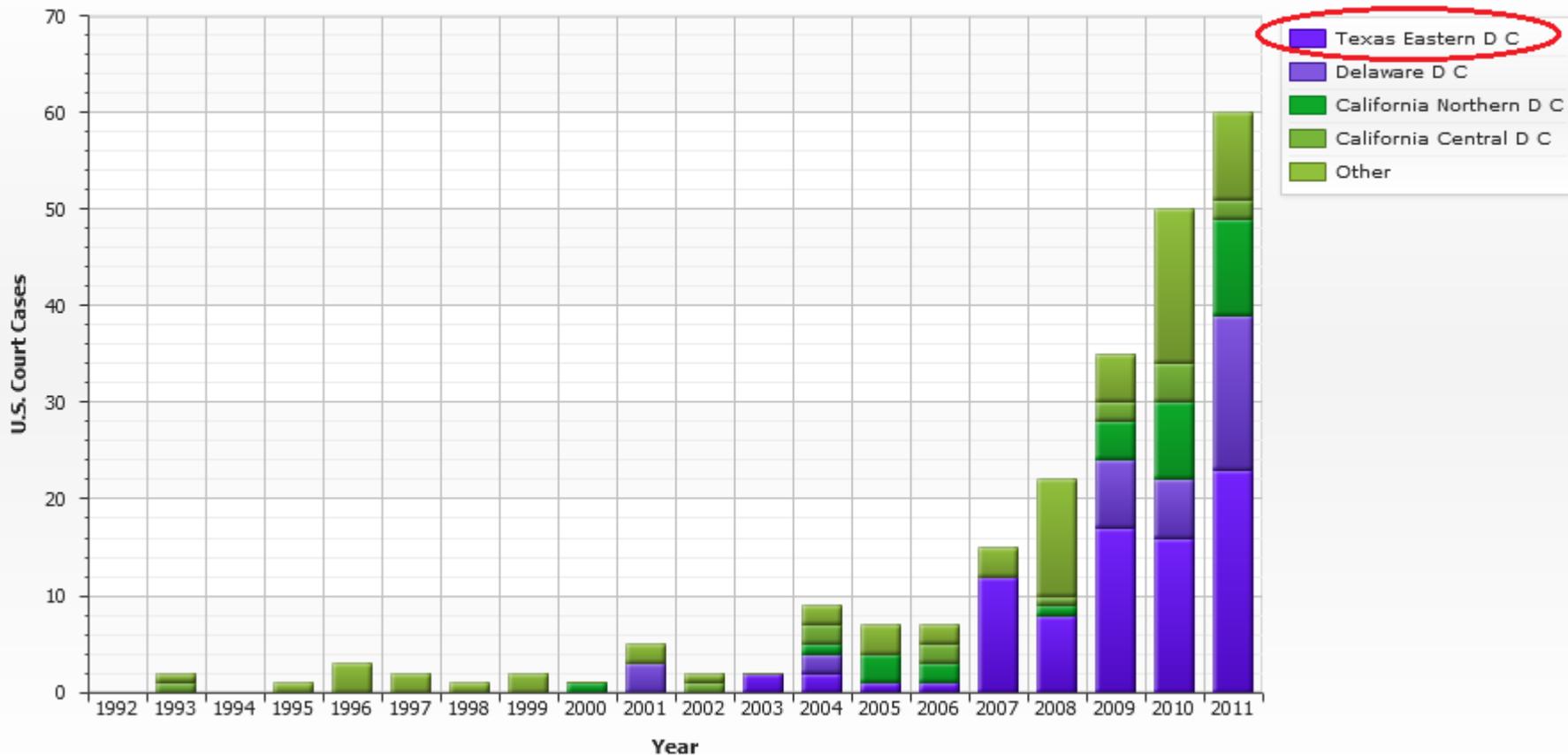


专利背后的硝烟

● 苹果受到的诉讼攻击

Results: 247 Cases, 20 Filed Dates

Case(s) per Court per Filing Year



● 2011年苹果的被告——台湾宏达电

	<p>Htc Bvi Corp</p>	<p>Htc America Holding Inc</p>
<p>S3 Graphics, Inc.</p>	<p>Htc Corporation</p>	<p>Exedea Inc.</p>

● 2011年挑战苹果的原告——三星

Samsung Electronics Co., Ltd.	Personal Audio, Llc	Imperium (ip) Holdings, New...	Calibrat Llc	Htc Corporation		
Walker Digital Llc	Emblaze Ltd.	Olympic Development Ag Llc	E-contact Technologies Llc	Cordance Corporation	Microunity Systems Eng	
Nokia Corporation		Ogma Llc	X2y Attenuators Llc	Ideas International Limited	Efficient Online Purchasing Llc	Display Technologies, Inc
				Robocast, Inc.	Intellisync Corp	Optimum Power Solutions Llc

专利背后的硝烟

- Apple Vs. S3 Graphics
 - S3 Graphics是谁？

htc

← 235件专利



WTI
Investment
International



● Apple Vs. S3 Graphics

S3诉讼苹果侵犯其3D图像压缩技术专利

1:2011cv00862	S3 Graphics Co Ltd. v. Apple Inc.	dedce	09-22-2011
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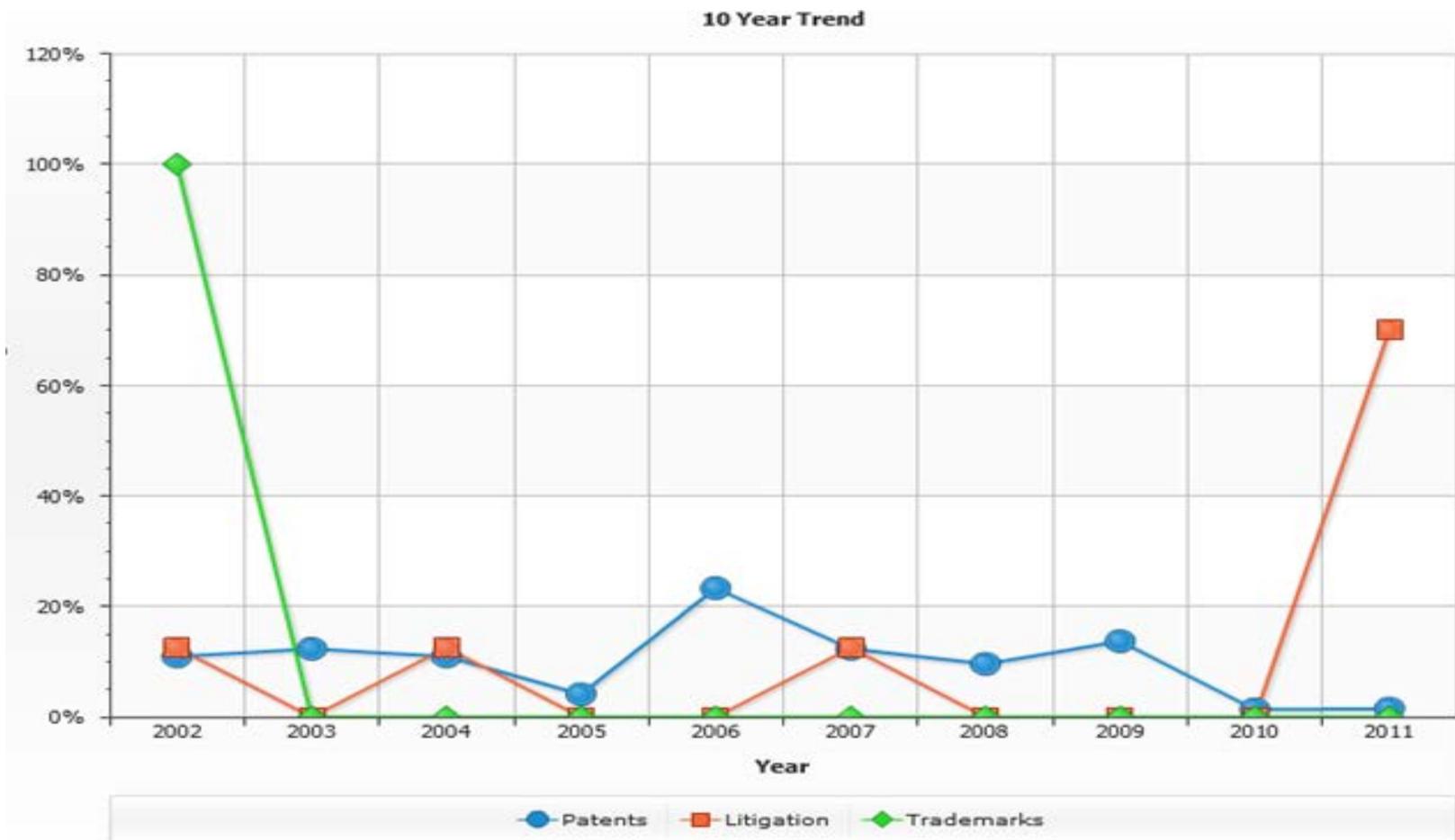
Type	Times Mentioned	ID	Title
Complaint	19	US5945997	Block- and band-oriented traversal in three-dimensional triangle rendering
Complaint	19	US5581279	Vga controller circuitry

苹果诉求S3若干图像处理专利无效

Type	Times Mentioned	ID	Title
Complaint	153	US6775417	Fixed-rate block-based image compression with inferred pixel values
Complaint	148	US6683978	Fixed-rate block-based image compression with inferred pixel values
Complaint	142	US7043087	Image processing system
Complaint	121	US6658146	Fixed-rate block-based image compression with inferred pixel values
Complaint	18	US5956431	System and method for fixed-rate block-based image compression with
Complaint	8	US6075619	Image processing apparatus and method
Complaint	7	US5956425	Image processing apparatus and method
Complaint	7	US5822465	Image encoding by vector quantization of regions of an image and code
Complaint	7	US5734744	Method and apparatus for compression and decompression of color da
Complaint	7	US4887151	Encoding apparatus for color image data with block-by-block individual c encoding of luminosity, structure, and color information

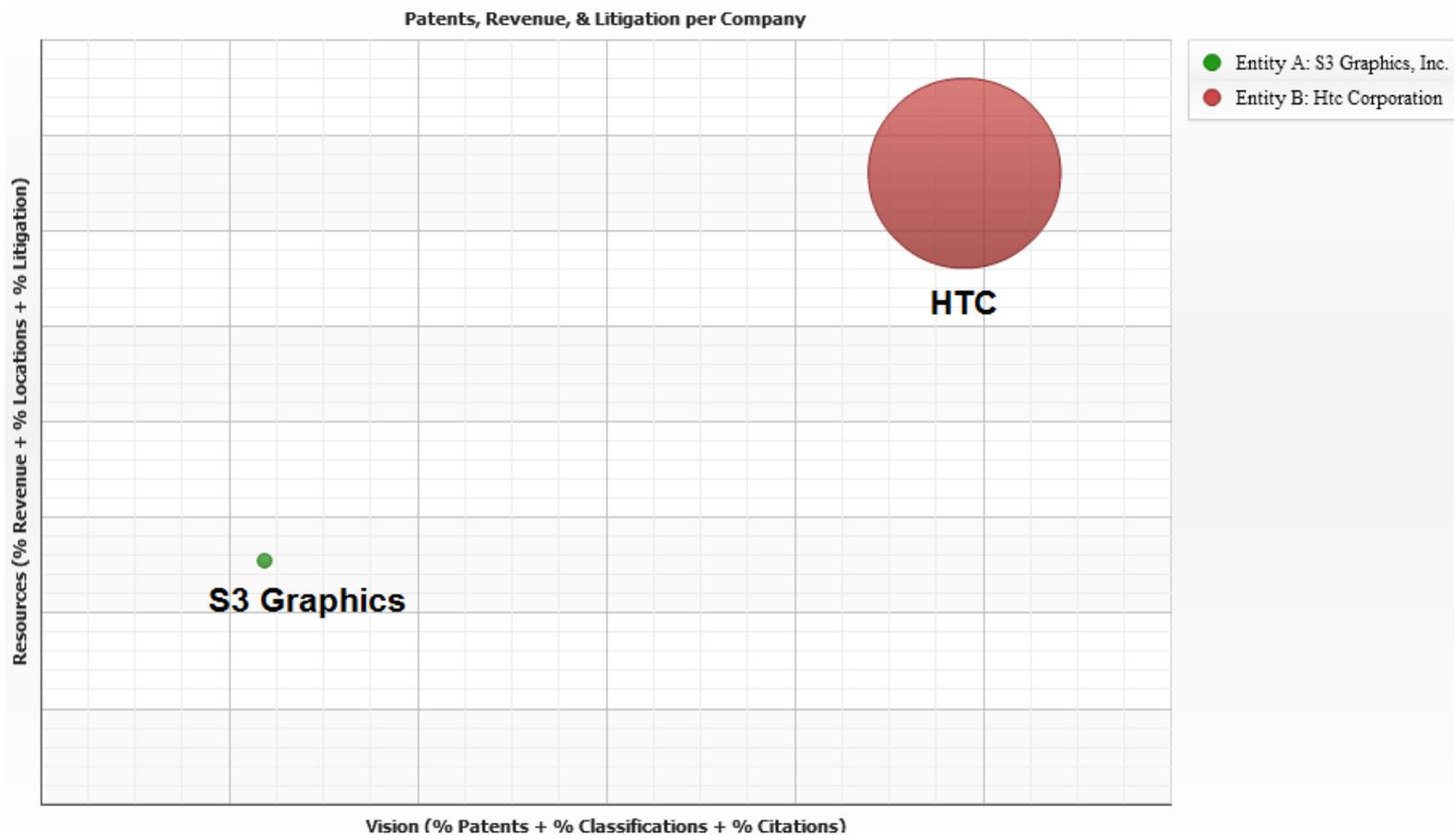
● HTC为什么要收购S3 Graphics

S3 Graphics综合素质不错，专利较年轻



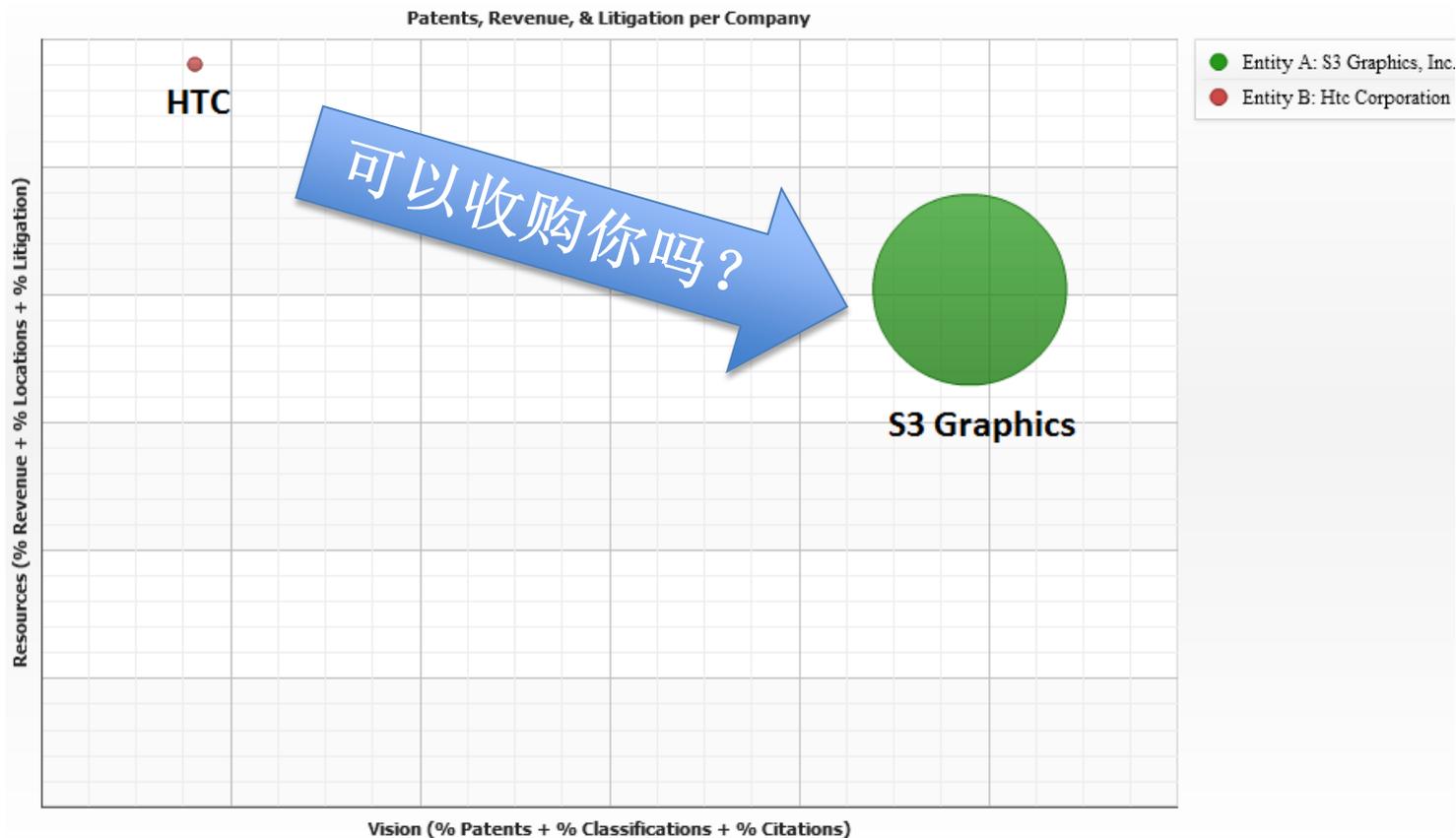
● HTC为什么要收购S3 Graphics

HTC综合实力确实远强于S3 graphics

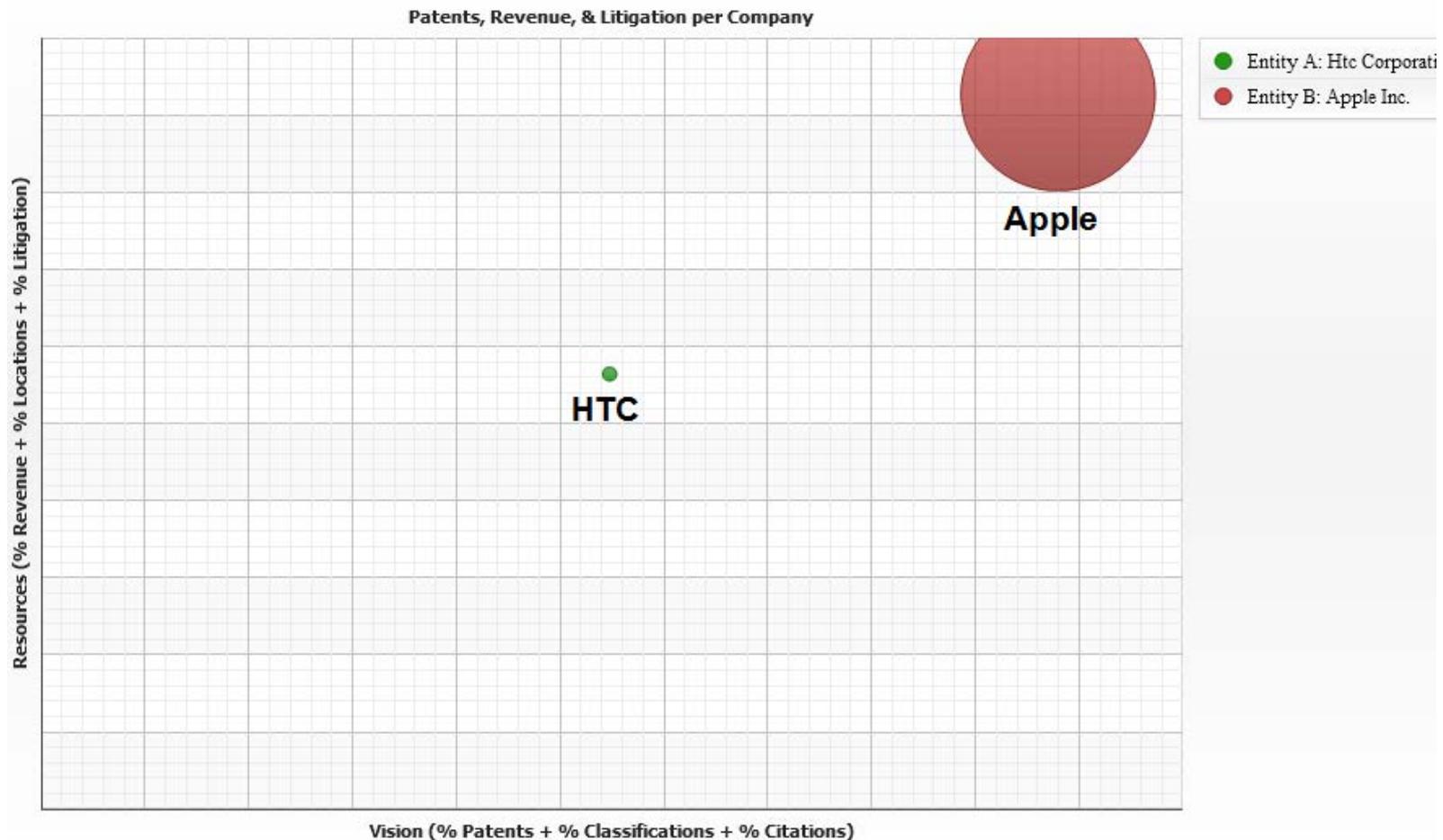


● HTC为什么要收购S3 Graphics

G06T 一般的图像数据处理或产生（含3D）领域S3技术优势明显

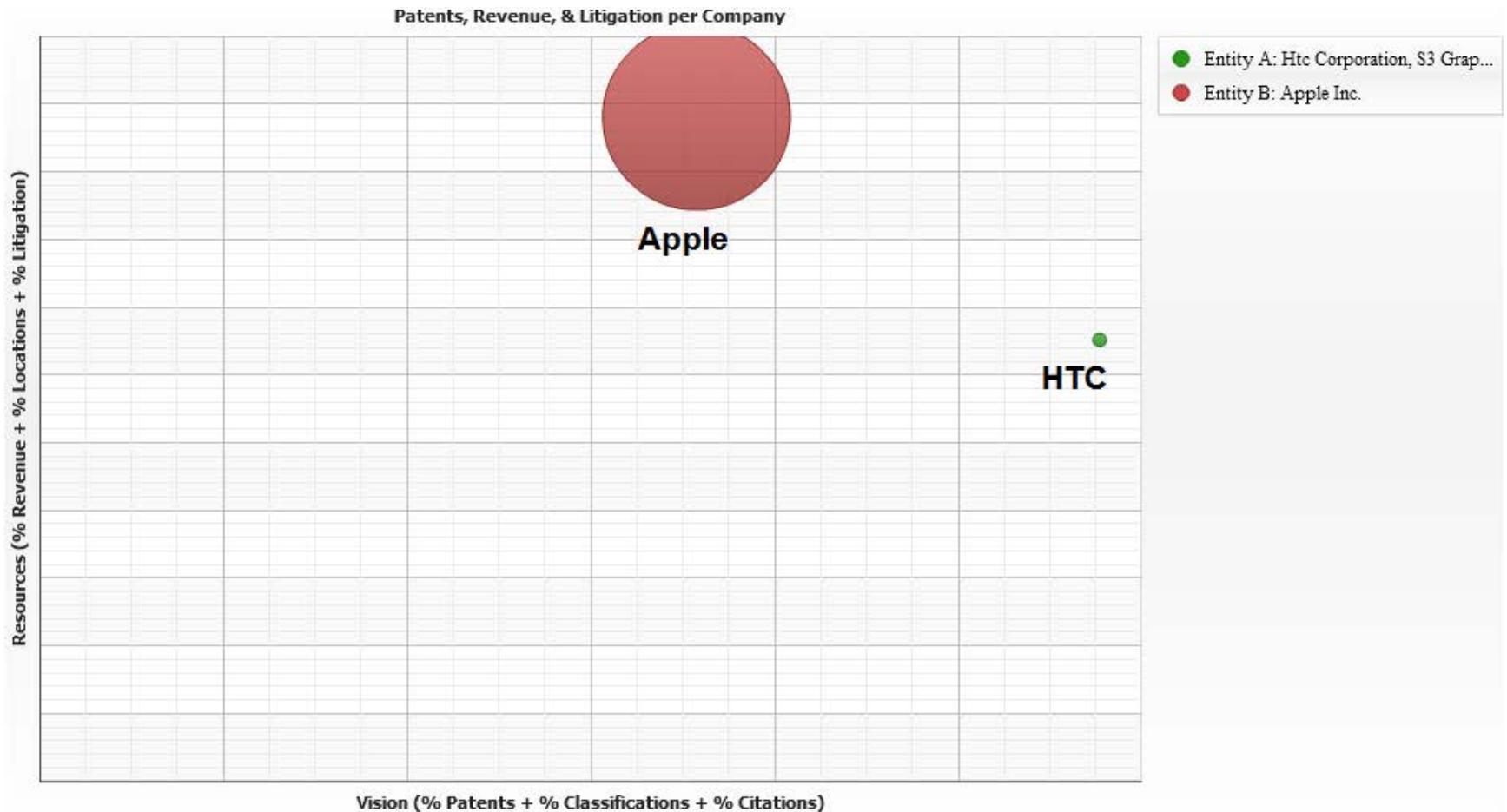


HTC收购S3前图像技术领域HTC<Apple



专利背后的硝烟

- HTC收购S3后图像技术领域HTC+S3>Apple, 收购确实明智!

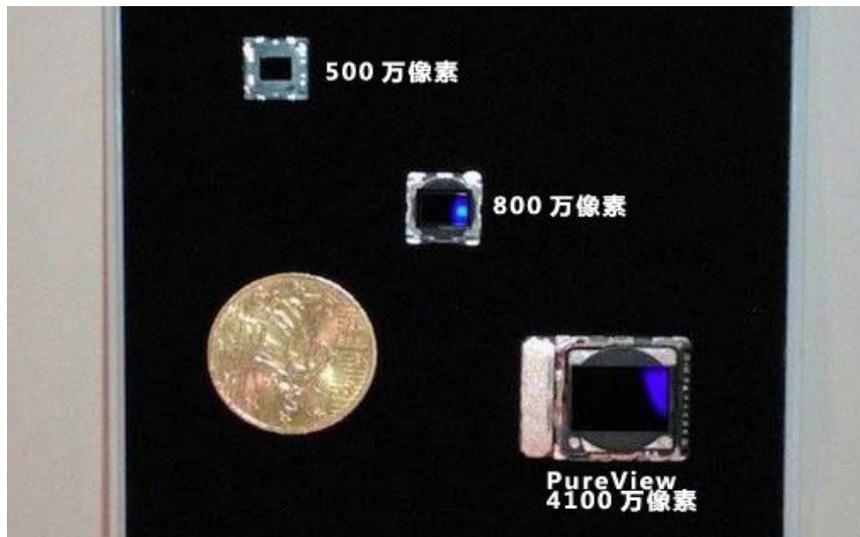


专利分析其实很有趣

故事三

埋藏五年的“秘密武器”

- 2012年，MWC（世界移动通讯大会）
- Nokia 808 **PureView**
 - 4100万像素的拍照“怪兽”
 - 含辛茹苦，五年磨一剑
 - 2012 MWC Best New Mobile Handset!



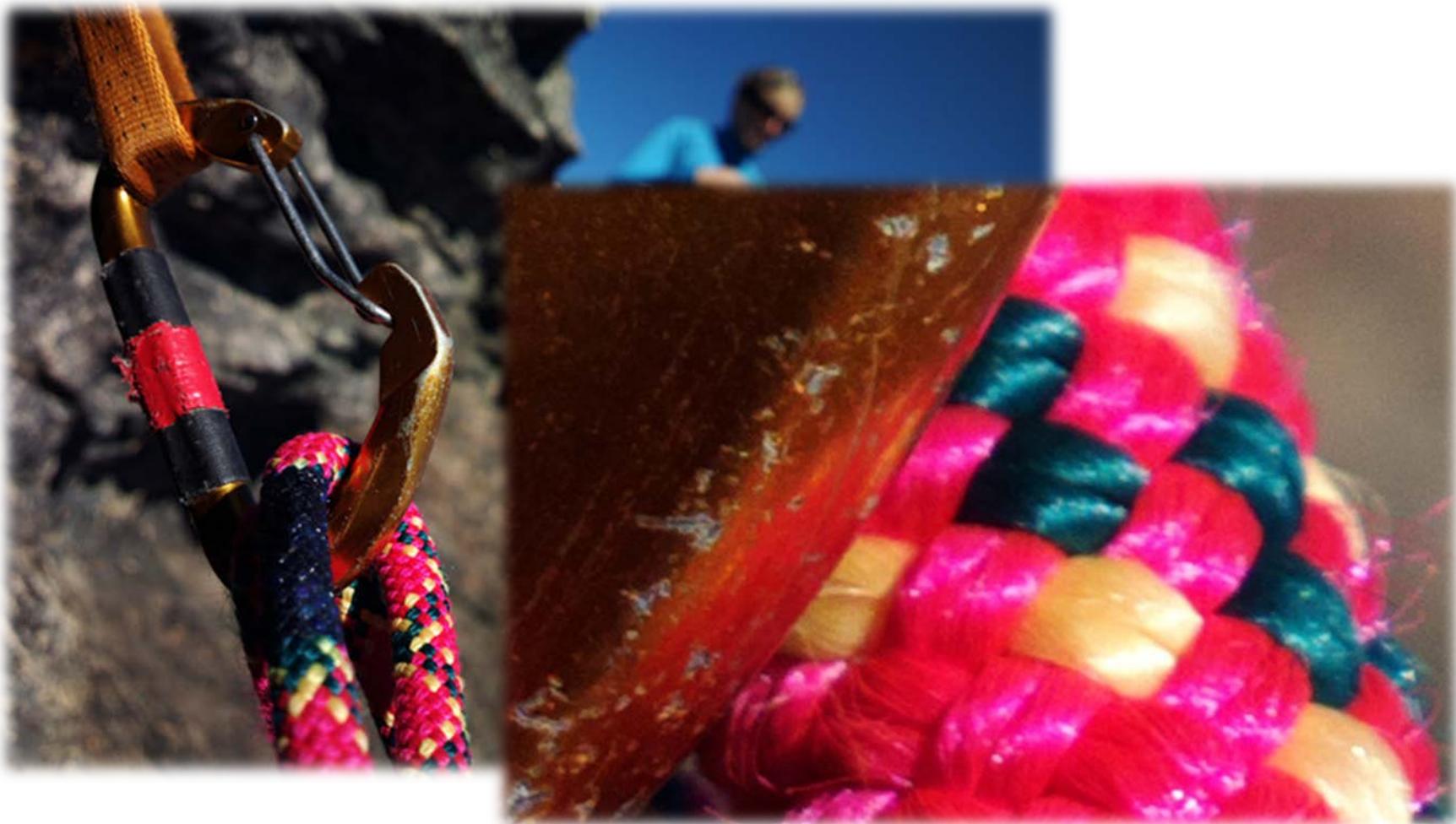
埋藏五年的“秘密武器”

- “PureView” 效果如何



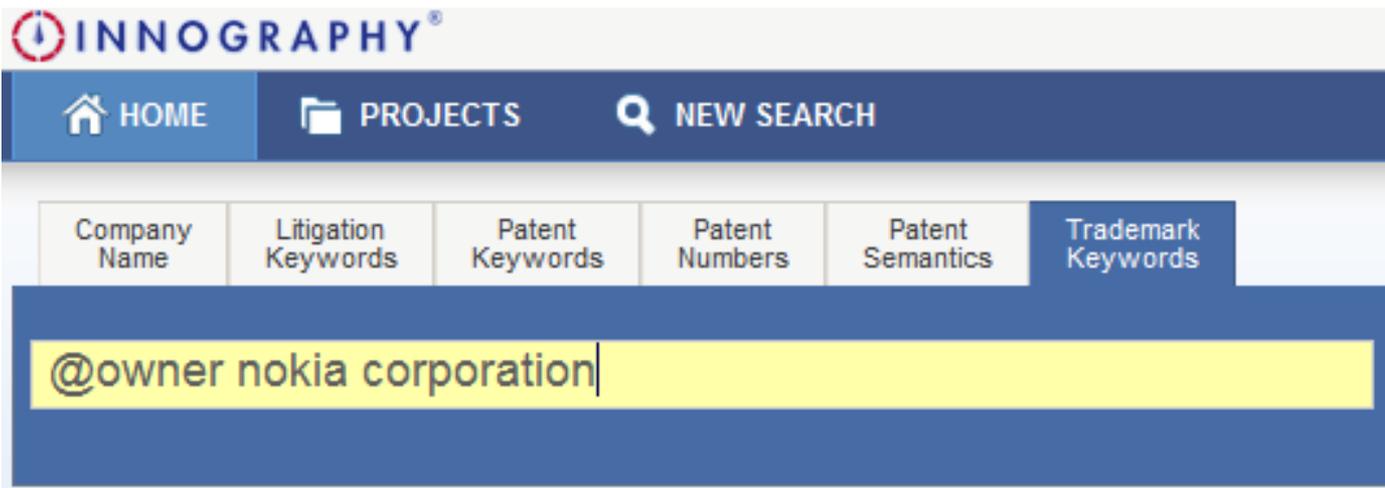
埋藏五年的“秘密武器”

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埋藏五年的“秘密武器”

- “PureView”这个词啥时候出现的？
 - 2012MWC前，诺基亚中国区资讯总监冯光顺在微博上表示：“其实这个Pureview视频要表达的信息就是对细节，清晰度，画质的终极追求。未来几年，大家都会深刻的记住这个词---Pureview”。
 - 我们却能更早地发现这个特殊的词！



埋藏五年的“秘密武器”



- 2012.1.4 “PureView” 出现在诺基亚的商标申请中很醒目

The screenshot shows a trademark search interface. On the left, a table lists search results. The second row, with ID 85508559, is highlighted with a red box. A detailed view for this trademark is shown on the right, featuring the word 'PUREVIEW' in large letters. Below the name, it lists 'Goods and Services' including mobile phones, cameras, and computer hardware. The 'Design Search Code' section indicates no design search information. The 'Classifications' section shows the international trademark classification as 009 Electrical and scientific apparatus.

#	ID	Title
1	85512775	LUI
2	85508559	PUREVIEW
3	85455534	NO
4	85455541	NO
5	85343670	PEP
6	79096236	NO
7	85166816	CLE

Table Grid

Not found in any active project

Trademark Overview

Links: USPTO Document

Serial Number: 85508559

Registration

Filed Date: 2012-01-04

Opposition Date

Mark Type: TRADEMARK

Mark Drawing Code

Live/Dead: Pending

Owner: Nokia Corporation

Owner Address: Keilalahdentie 4, Espoo 02150

Searches

Company's Related Patents

All Related Patents

Relevance

PUREVIEW

Goods and Services

Mobile phones, smart phones
cameras
computer hardware and computer software in relation to mobile phones, sm
memory cards
imaging and video apparatus and instruments
tripods for cameras
accessories, parts and fittings for all the aforementioned goods

Design Search Code

No design search information.

Classifications

▼ Intl. Trademark Classification

009 Electrical and scientific apparatus

埋藏五年的“秘密武器”



- 这个商标风险较小，适合广告推广

<input type="checkbox"/>	#	ID	Title	Owner	Filed
<input type="checkbox"/>	1	8	Not found in any active project		
<input type="checkbox"/>	2		Not found in any active project		
<input type="checkbox"/>	3	7	USPTO Document		
<input type="checkbox"/>	4	7	74439279		
<input type="checkbox"/>	5	7	1993-09-23		
<input type="checkbox"/>	6	7	TRADEMARK		
<input type="checkbox"/>	7	7	(5) WORDS, LETTERS AND/OR NUMBERS IN STYLIZED FORM		
<input type="checkbox"/>	8	7	Dead		
<input type="checkbox"/>	9	7	FISHER SCIENTIFIC COMPANY		

Project Info

Not found in any active project

Trademark Overview

Links	USPTO Document
Serial Number	74439279
Registration	
Filed Date	1993-09-23
Opposition Date	
Mark Type	TRADEMARK
Mark Drawing Code	(5) WORDS, LETTERS AND/OR NUMBERS IN STYLIZED FORM
Live/Dead	Dead
Owner	FISHER SCIENTIFIC COMPANY
Owner Address	, 2000 PARK LANE

Image

Goods and Services

microscope immersion oils for obtaining optimum visibility of a specimen being

Design Search Code

No design search information.

Classifications

- Intl. Trademark Classification
- Intl. Patent Classification
 - A61K 31/000: Medicinal Preparations Containing Organic Active Ingredients
 - A61K 39/000: Medicinal Preparations Containing Antigens Or Antibodies

埋藏五年的“秘密武器”

● 揭秘“PureView”技术专利！

- 诺基亚工程师团队打破常规，秘密研发了五年
- 诺基亚成像技术部门主管朱哈·阿拉卡胡(Juha Alakarhu)
- 诺基亚数码相机研发项目经理埃洛·萨尔梅林(Eero Salmelin)

诺基亚英文博客刊登了一张四人合照：

- 产品经理 Jussi Asikainen；
- 联合设计者 Juha Alakarhu；
- 高级副总裁 Jo Harlow；
- 联合设计者 Eero Salmelin。

他们捧着奖杯和彩色的 808 露出了久违的笑容——这三年来诺基亚高管的每一次出境无不眉头紧锁，神色忧郁——只有这次是如此轻松。



埋藏五年的“秘密武器”



● Inventor: Juha Alakarhu & Eero Salmelin

You searched Patent Keywords for **@inventor (Eero Salmelin) or (Juha Alakarhu)** Results: 70 Patents Save Search Share

Refine Clear All

Source Click to Select

Extended References Click to Select

Organization Click to Select

Organization Revenue

no min no max

Original Organization Click to Select

IP Classification Click to Select

US Classification Click to Select

Priority Date clear

MM DD YYYY - MM DD YYYY

Publish Date clear

MM DD YYYY - MM DD YYYY

Display Options

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No Group Table Grid

Organization

IP Class

USP Class

Priority Year

Relevance

Patent Strength

Patent Title

Publish Date

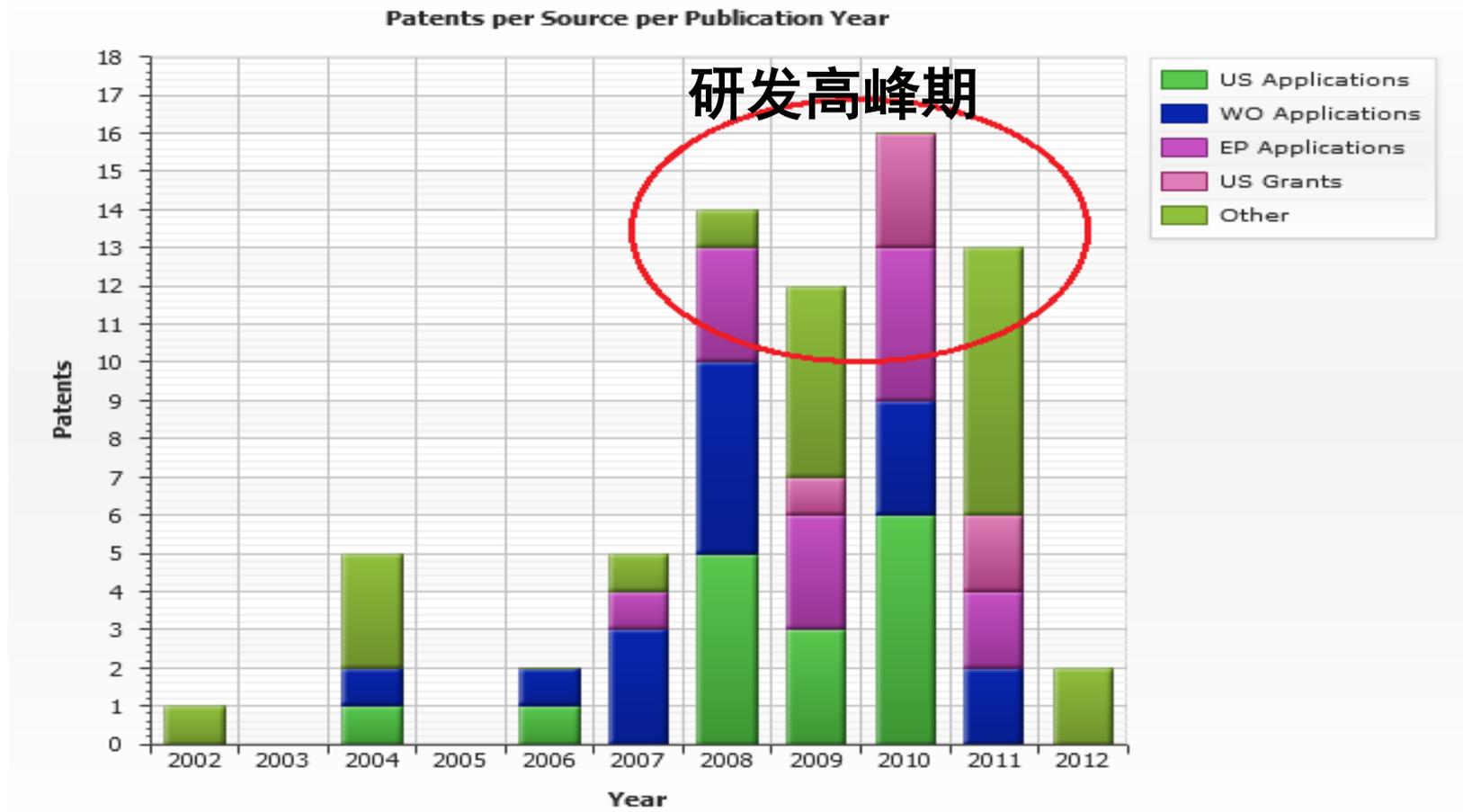
Selected: 0 Patents Analyze Save Patents Export

<input type="checkbox"/>	#	ID	Title	Assignee	Published
<input type="checkbox"/>	2	EP1958437 B1	Camera unit and method for controlling an image sensor in a camera unit	Nokia Corporation	01-18-2012
<input type="checkbox"/>	3	AT533295 T	Ableseverfahren f�ur eine cmos-bildgebungs-vorrichtung mit verringertem dunkelstrom	Nokia Corporation	11-15-2011
<input type="checkbox"/>	4	EP2161919 B1	Read out method for a cmos imager with reduced dark current	Nokia Corporation	11-09-2011
<input type="checkbox"/>	5	EP1938581 A4	Internal storage of camera characteristics during production	Nokia Corporation	10-19-2011
<input type="checkbox"/>	6	US8035689 B2	Camera unit and method for controlling an image sensor in a camera unit	Nokia Corporation	10-11-2011
<input type="checkbox"/>	7	WO2011121165 A1	Image sensor optimization	Nokia Corporation	10-06-2011

埋藏五年的“秘密武器”



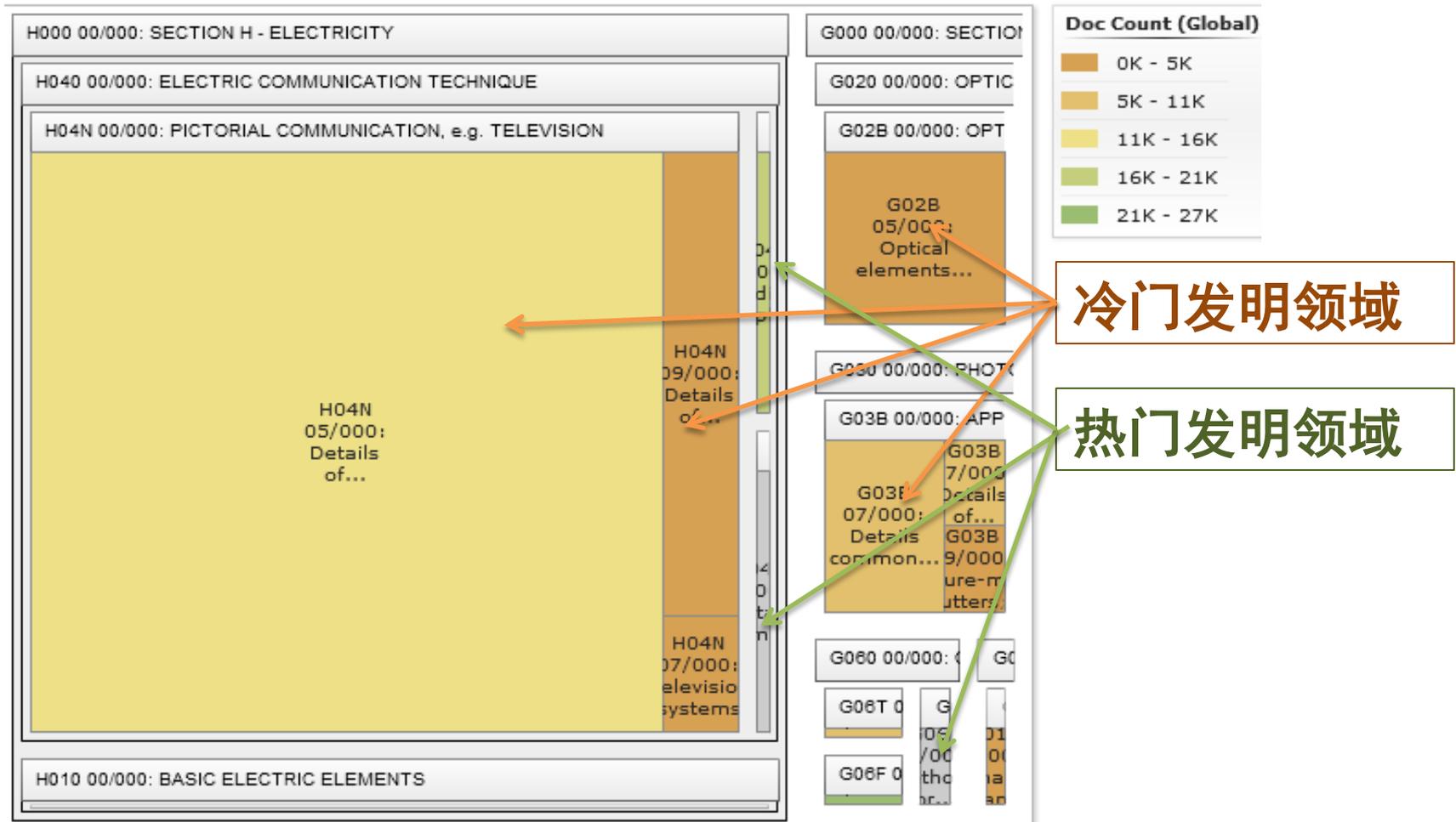
● Inventor: Juha Alakarhu & Eero Salmelin



埋藏五年的“秘密武器”

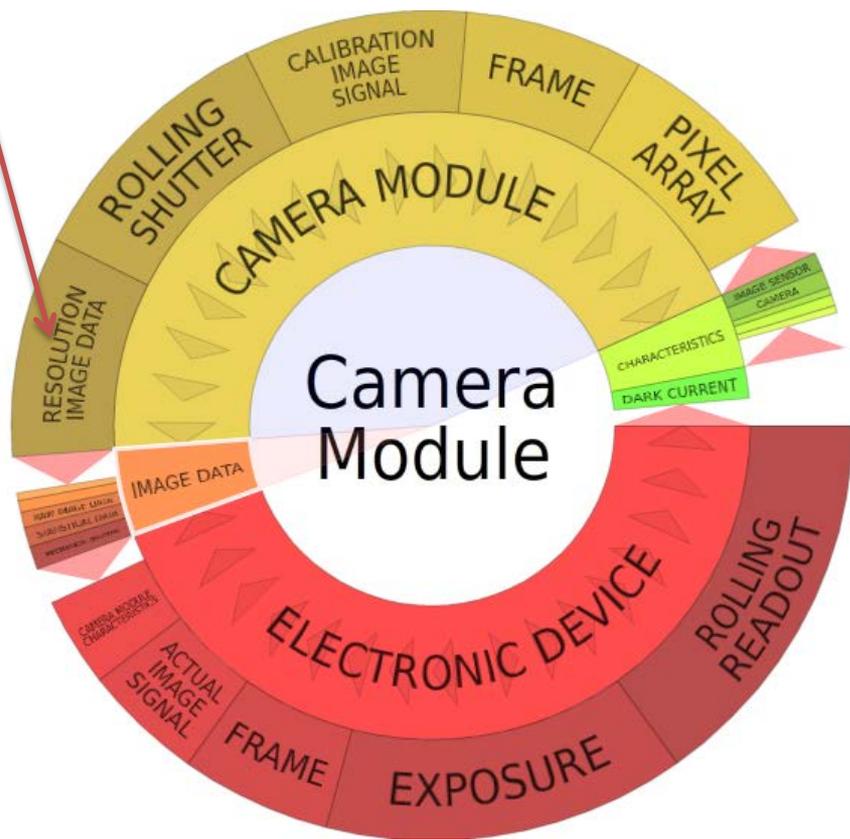
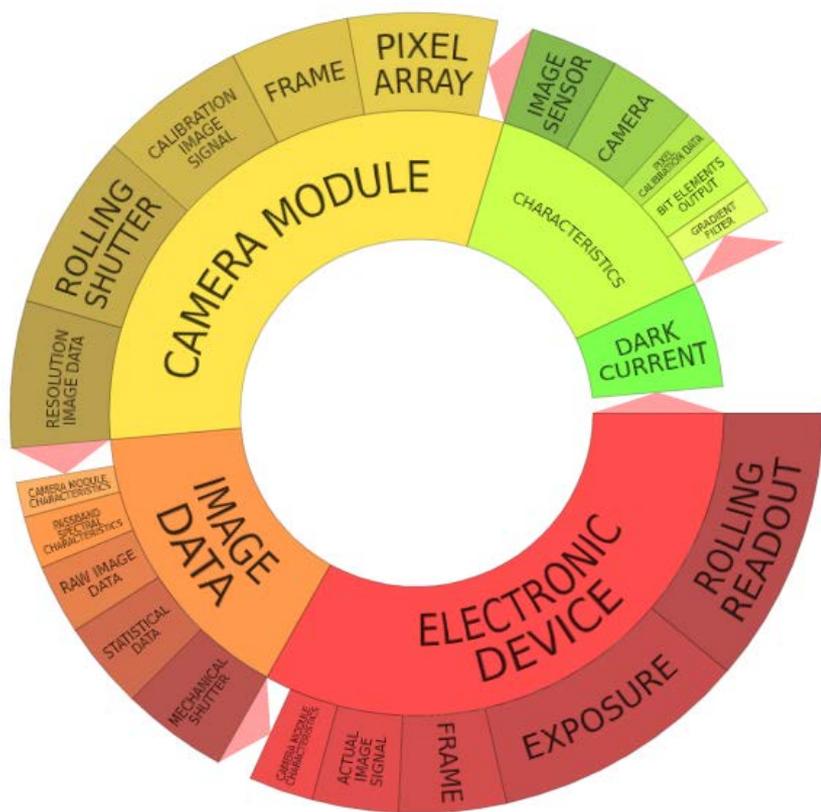
- Inventor: Juha Alakarhu & Eero Salmelin

Patents per IP Class (color = Global Doc Count)



埋藏五年的“秘密武器”

- 研究技术点：照相模块、图像数据、电子设备、像素阵列、图像信号校正、卷帘、**高分辨率图像数据**等



埋藏五年的“秘密武器”



- 高分辨率图像专利，按照“专利强度”排序

The screenshot shows a software interface for patent analysis. On the left, there is a sidebar with various filters and options. The main area displays a table of patents, with a sub-table for 'Resolution Image Data' highlighted in red. The sub-table lists 5 patents, all assigned to Nokia Corporation, sorted by their patent strength.

Group: Text Cluster		View: Table Grid		Sort: Patent Strength	
Text Cluster		Circles		Patent Strength	
		Table Grid		Patent Title	
				Publish Date	
Selected: 5 Patents Analyze Save Patents Export					
<input type="checkbox"/>	#	ID	Title	Assignee	Published
<input type="checkbox"/>	>	Electronic Device			25
<input type="checkbox"/>	>	Image Data			18
<input type="checkbox"/>	>	Camera Module			19
<input checked="" type="checkbox"/>	>	Resolution Image Data			5
<input checked="" type="checkbox"/>	1	US7492958 B2	Digital imaging with autofocus	Nokia Corporation	02-17-2009
<input checked="" type="checkbox"/>	2	US8035689 B2	Camera unit and method for controlling an image sensor in a camera unit	Nokia Corporation	10-11-2011
<input checked="" type="checkbox"/>	3	US20060146144 A1	Digital imaging with autofocus	Nokia Corporation	07-06-2006
<input checked="" type="checkbox"/>	4	WO2007065964 A1	Camera unit and method for controlling an image sensor in a camera unit	Nokia Corporation	06-14-2007
<input checked="" type="checkbox"/>	5	US20090251584 A1	Camera unit and method for controlling an image sensor in a camera unit	Nokia Corporation	10-08-2009
<input type="checkbox"/>	>	Rolling Shutter			6
<input type="checkbox"/>	>	Calibration Image Signal			5
<input type="checkbox"/>	>				4

埋藏五年的“秘密武器”



● 高分辨率图像专利US7492958 B2

US7492958 B2
Digital Imaging with autofocus

Overview Citations

Project Info
Not found in any active project

Extended References
Not associated with any additional content

Abstract
In digital imaging, in a case where the full resolution digital image needs to be scaled down before presenting it on a display, before the image data is attached to the image for further processing. The invention relates to a method, to a device, to an imaging module and to a computer program.

Claims

Selected: 0 Patents **同族专利** Analyze Save Patents Export

<input type="checkbox"/>	#	ID	Title	Assignee	Published
<input type="checkbox"/>	1	US7492958 B2	Digital imaging with autofocus	Nokia Corporation	02-17-2009
<input type="checkbox"/>	2	CN101095341 A	Digital imaging with autofocus	Nokia Corp.	12-26-2007
<input type="checkbox"/>	3	EP1836842 A4	Digital imaging with autofocus	Nokia Corporation	04-14-2010
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<input type="checkbox"/>	5	US20060146144 A1	Digital imaging with autofocus	Nokia Corporation	07-06-2006
<input type="checkbox"/>	6	WO2006072655 A1	Digital imaging with autofocus	Nokia Corporation	07-13-2006

Claims 23
PTO Length 4.12 years
Forward Citations 0
Backward Citations 8
Strength 40th-50th Percentile

First Page Clipping

Claim #8
A device comprising
an image sensor to capture a full resolution digital image data,
a processor to provide a partial resolution image data based on said full resolution image, and
a statistical calculator to determine statistical data relating to a focusing state of the full resolution image data,
wherein said device is arranged to send said statistical data and said partial resolution image data together for defining autofocus for the image.

Claim #8 Dependents

9 The device according to claim 8, wherein the image sensor is arranged to gather the statistical data from raw full resolution image data.

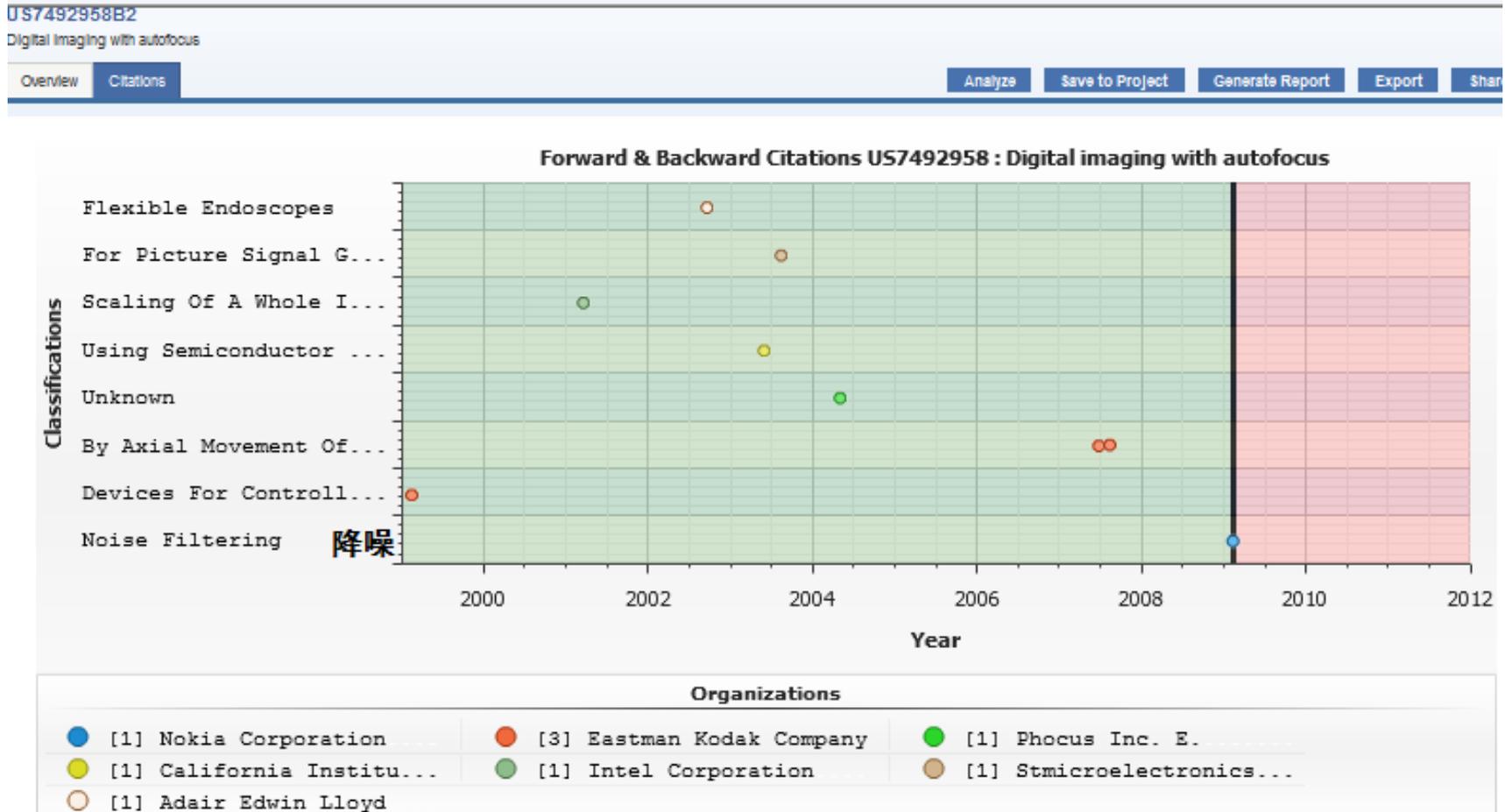
10 The device according to claim 8, wherein the image sensor is arranged to gather the statistical data from at least one predetermined part.

11 The device according to claim 8, wherein the device is arranged to calculate said statistical data before providing said partial resolution image data.

埋藏五年的“秘密武器”

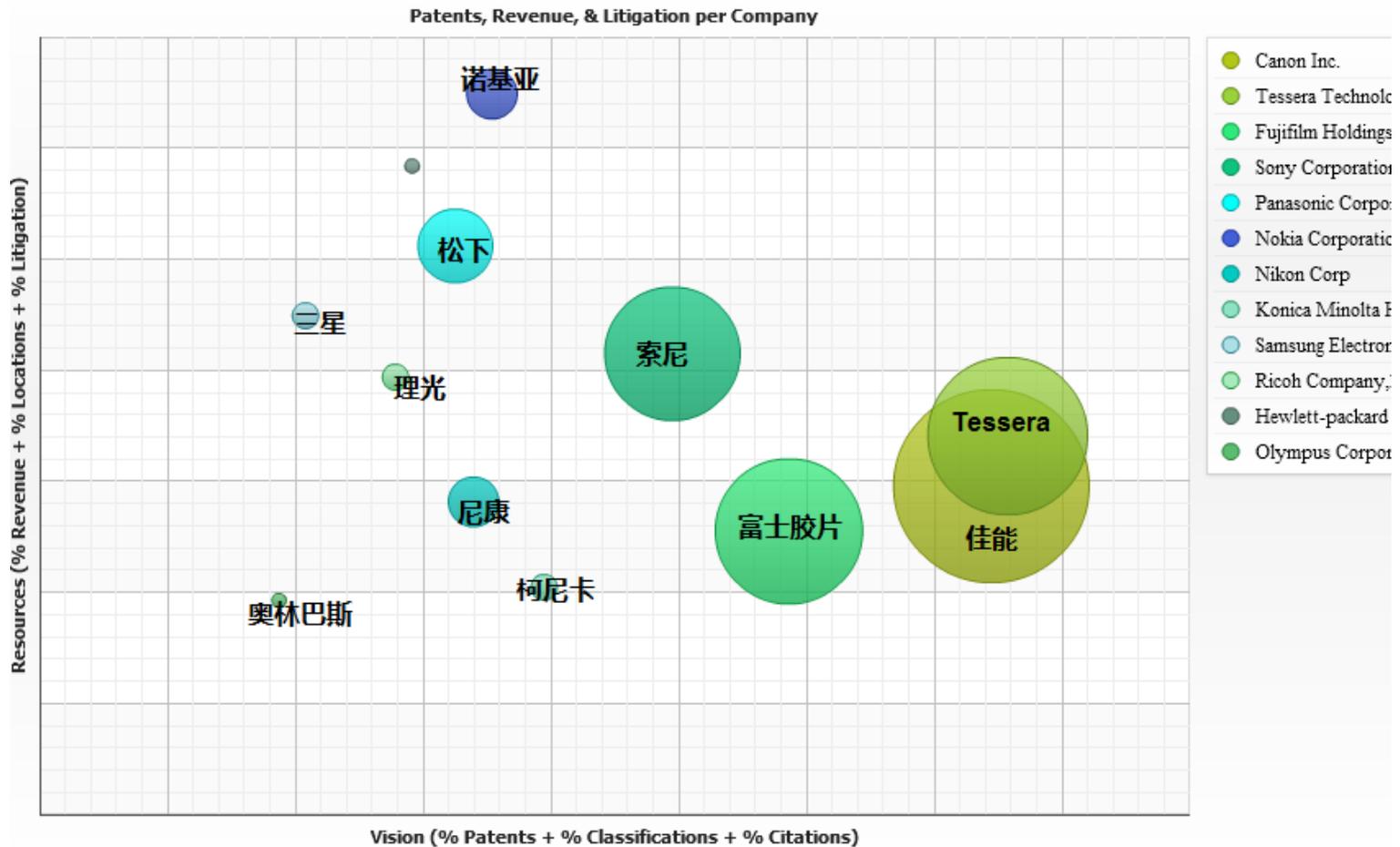


- 高分辨率图像专利较新颖集中于研究图像降噪技术



埋藏五年的“秘密武器”

- 相似高分辨率图像专利竞争差距分析：该领域以专注照相设备微型化的Tessera和佳能占据领先优势。



专利分析其实很有趣

故事四

- 中国高校专利分析
 - 不同于期刊文献，引证排名行不通
 - 专利字段丰富特征更细腻
 - 量变是否可以引起质变？

ESI期刊引文最新排名

时间↕	2012/1/1↕
北京大学↕	172↕
清华大学↕	215↕
浙江大学↕	231↕
中国科学技术大学↕	278↕
复旦大学↕	290↕
上海交通大学↕	295↕
南京大学↕	316↕
中山大学↕	405↕
吉林大学↕	459↕
山东大学↕	478↕
南开大学↕	483↕

INNO专利量最新排名

高校名称↕	专利量↕
清华大学↕	14932↕
浙江大学↕	10844↕
上海交通大学↕	8306↕
复旦大学↕	4631↕
中山大学↕	2816↕
山东大学↕	2814↕
南京大学↕	2689↕
北京大学↕	2401↕
南开大学↕	1967↕

高校专利引证不通价值通

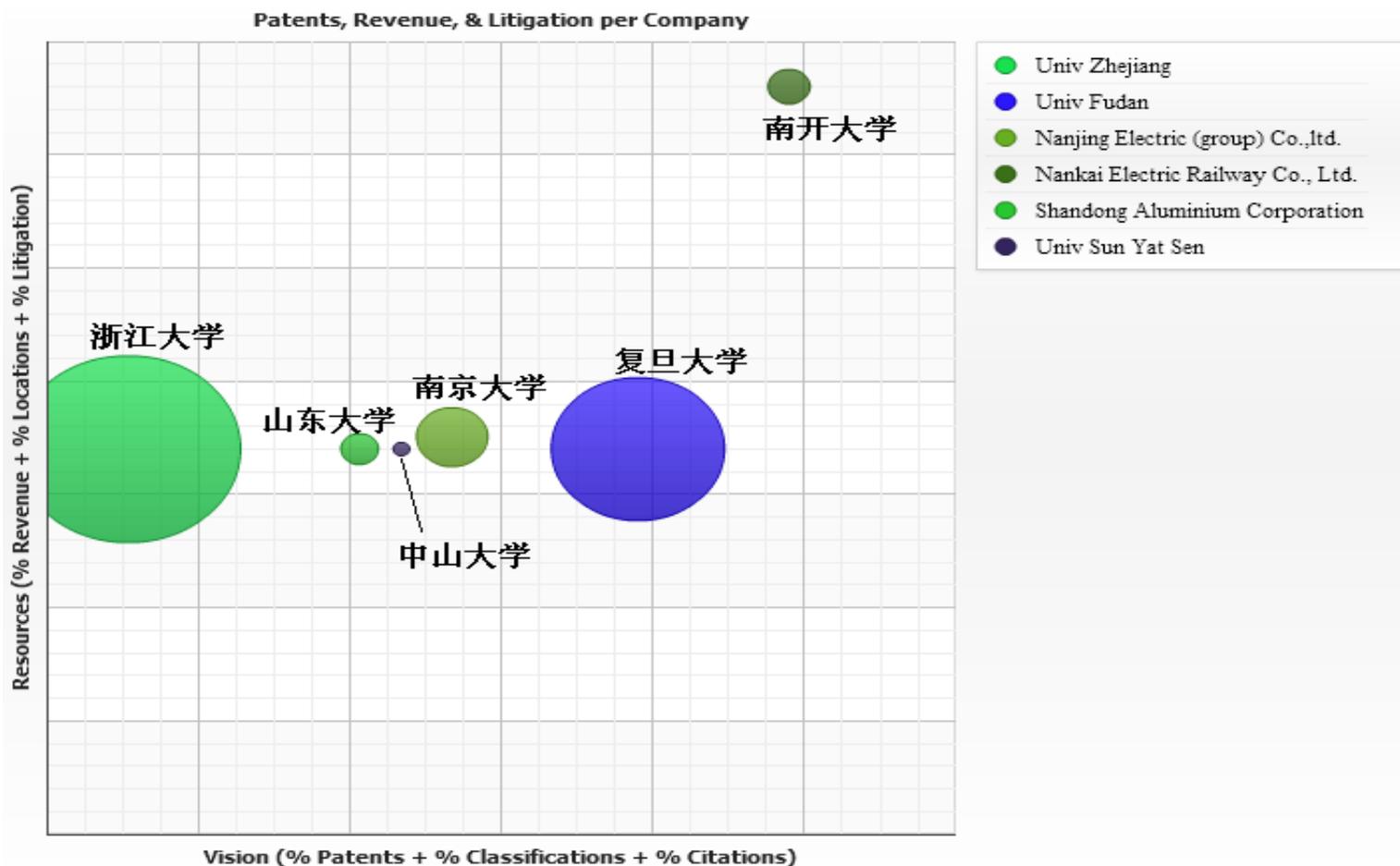


● 中国高校专利分析

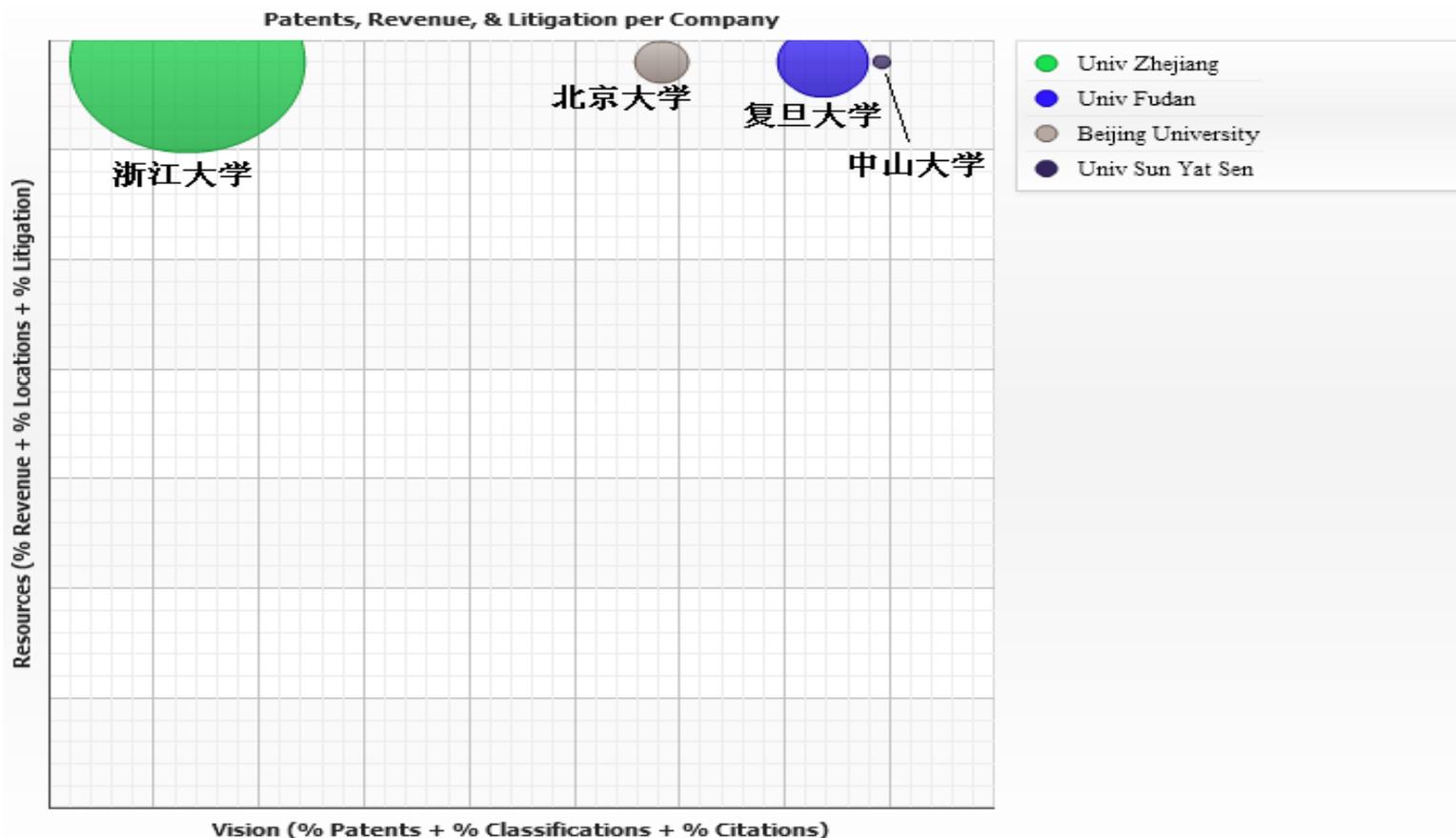
高校名称	专利量	保有专利量	专利保有率%	国外专利总量	高价值专利量	高价值专利比例%	转出专利量	转进专利量	重点研究学科
清华大学	14932	10906	73	3216	555	3.7	237	258	物理；电学
北京大学	2401	1645	69	540	88	3.7	87	15	电学；物理；医学
浙江大学	10844	6627	61	165	66	0.6	233	19	物理；化学；医学
上海交通大学	8306	5315	64	182	60	0.7	36	0	物理
复旦大学	4631	2934	63	345	49	1.1	26	16	化学；医学
中山大学	2816	1992	71	165	33	1.2	18	4	化学；医学
南开大学	1967	1181	60	95	29	1.5	11	1	化学
南京大学	2689	1664	62	84	27	1	2	5	化学
山东大学	2814	1878	67	30	6	0.2	34	1	化学

高校名称	专利量	保有专利量	专利保有率%	国外专利总量	高价值专利量	高价值专利比例%	转出专利量	转进专利量	重点研究学科
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中山大学	2816	1992	71	165	33	1.2	18	4	化学；医学
北京大学	2401	1645	69	540	88	3.7	87	15	电学；物理；医学
山东大学	2814	1878	67	30	6	0.2	34	1	化学
上海交通大学	8306	5315	64	182	60	0.7	36	0	物理
复旦大学	4631	2934	63	345	49	1.1	26	16	化学；医学
南京大学	2689	1664	62	84	27	1	2	5	化学
浙江大学	10844	6627	61	165	66	0.6	233	19	物理；化学；医学
南开大学	1967	1181	60	95	29	1.5	11	1	化学

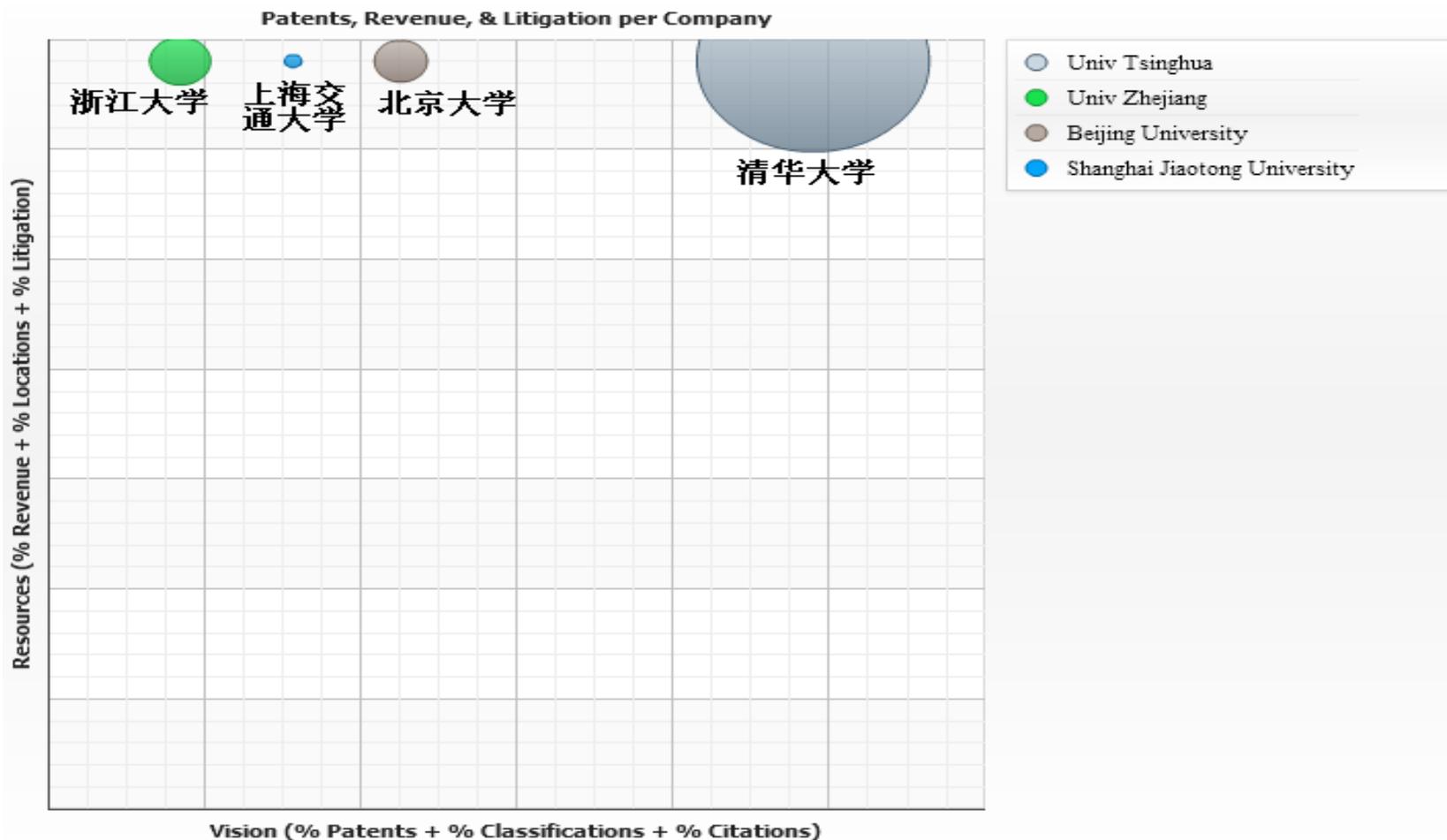
● 高校专利优势学科分析——化学



● 高校专利优势学科分析——医学

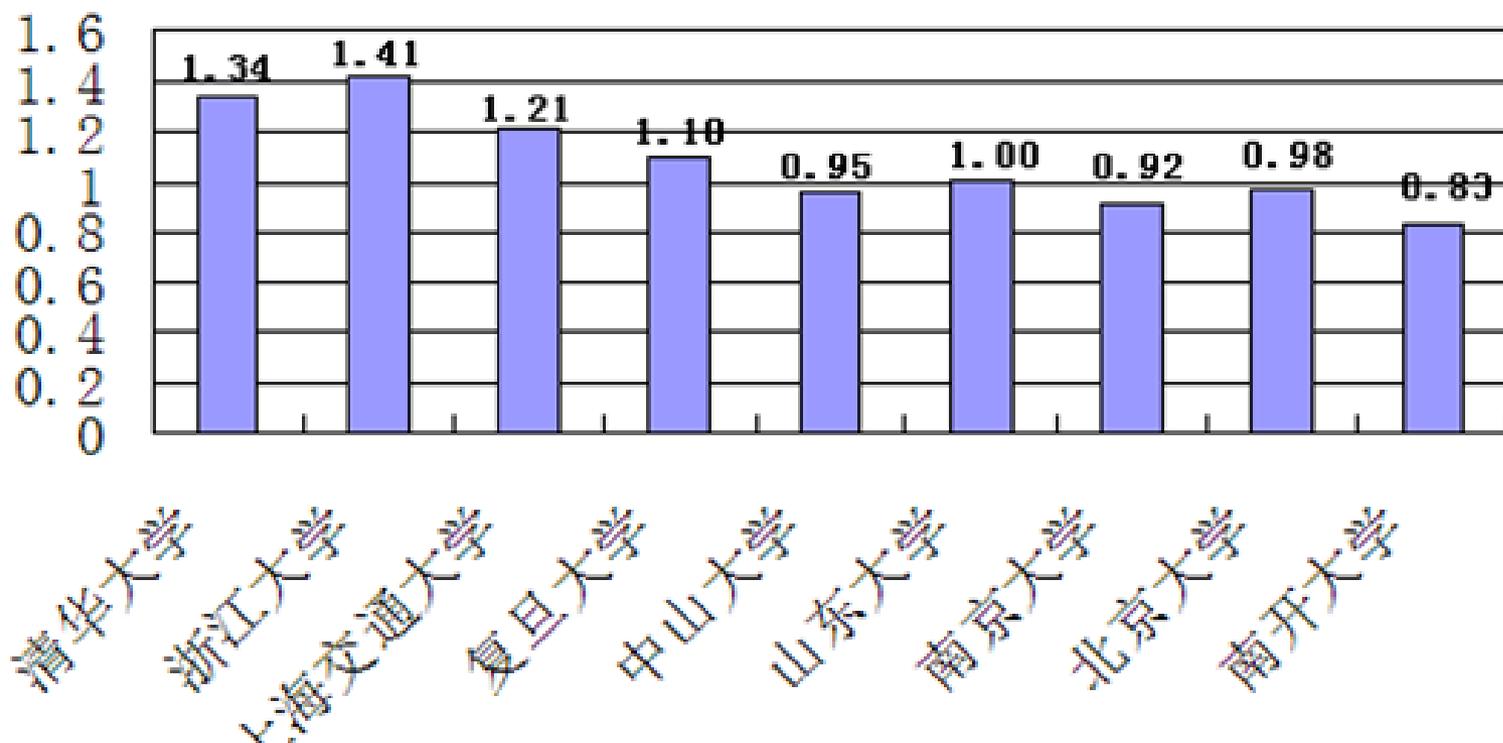


● 高校专利优势学科分析——物理



- 高校人均发明数量分析

高校人均发明专利量统计图



专利分析其实很有趣

故事五

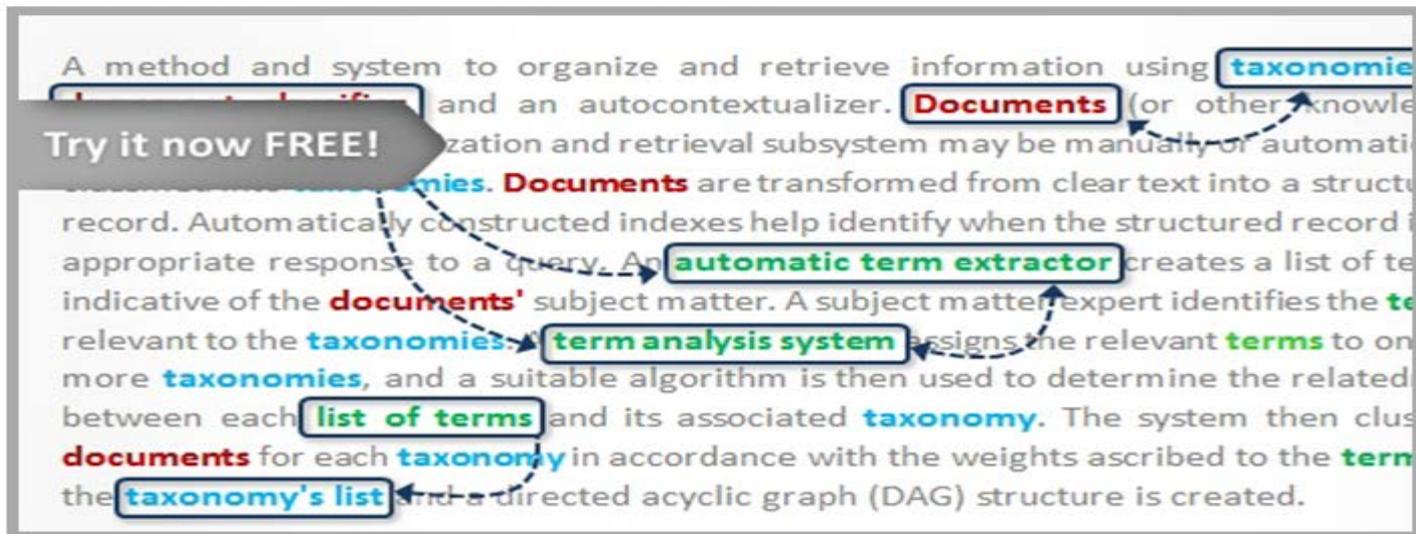
● 三氯蔗糖337案——专利无效

申请人	Tate & Lyle
诉由	生产工艺专利侵权
涉案产品	三氯蔗糖及含有三氯蔗糖的甜味剂
涉案专利	US4980463 US5470969 US5034551 US5498709 US7049435
国内被申请人	广东省食品工业研究所等12家

● 语义检索 Semantic search

- 输入一段话：1000字以内的任意技术描述、专利文字、文献章节
- 输入一个美国专利号：如本案US4980463
- 得到与该段文字或专利相似专利清单
- 若再填入优先权日，可用于无效、侵权检索！

Patent Semantics



神奇的语义检索

Dialog®

The screenshot displays the INNOGRAPHY search interface. At the top, there is a navigation bar with 'HOME', 'PROJECTS', and 'NEW SEARCH' options. Below this is a search filter bar with tabs for 'Company Name', 'Litigation Keywords', 'Patent Keywords', 'Patent Numbers', 'Patent Semantics', and 'Trademark Keywords'. The 'Patent Semantics' tab is currently selected. A search input field is visible on the right side of the filter bar, with a 'Search' button. The main content area shows a search result snippet highlighted in yellow, which is a patent abstract describing a process for the chlorination of sucrose-6-esters. On the left side of the interface, there is a 'Help Quick Links' section with several links: 'Search Syntax Quick', 'Importing Patents', 'Identifying Companies', 'Finding Potential Infr', and 'Finding the Top Litiga'. On the right side, there is a partial view of a text block that says 'are? We'd love to hear' and 'our CSM and we'll send'.

INNOGRAPHY®

HOME PROJECTS NEW SEARCH

Company Name Litigation Keywords Patent Keywords Patent Numbers Patent Semantics Trademark Keywords

Search

Help Quick Links

- Search Syntax Quick
- Importing Patents
- Identifying Companies
- Finding Potential Infr
- Finding the Top Litiga

A process for the chlorination of sucrose-6-esters to produce 6', 4,1'-trichloro-sucrose-6-esters which comprises the steps of: (a) adding at least seven molar equivalents of an acid chloride to a reaction mixture containing a sucrose-6-ester and a tertiary amide to form a chloroformiminium chloride salt in the presence of said sucrose-6-ester, whereby the chloroformiminium salt forms an O-alkylformiminium chloride adduct with the hydroxyl groups of the sucrose-6-ester; (b) subjecting the reaction mixture product of step (a) to an elevated temperature not higher than about 85.degree. C. for a period of time sufficient to produce a mixture of chlorinated sucrose-6-ester products consisting essentially of monochlorosucrose-6-ester, 4,6'-dichlorosucrose-6-ester, and 1',6'-dichlorosucrose-6-ester; and (c) subjecting the reaction mixture product of step (b) to an elevated temperature of at least about 100.degree. C. but not higher than about 130.degree. C. for a period of time sufficient to produce a chlorinated product

are? We'd love to hear
our CSM and we'll send

神奇的语义检索



Selected: 0 Patents

Refine Clear All

Keywords
Enter Keywords

Source Click to Select

Extended References Click to Select

Organization Click to Select

Organization Revenue
no min no max

Original Organization Click to Select

IP Classification Click to Select

US Classification Click to Select

Priority Date clear
MM DD YYYY **07 17 1989**

Publish Date clear
MM DD YYYY

#	ID	Title	Assignee	Published
4	US4362869 A	Process for the preparation of 4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose	Tate & Lyle Public Limited Company, A British Company	12-07-1982
5	US4996309 A	Process for preparing sucrose fatty acid ester powder	Dai-ichi Kogyo Seiyaku Co., Ltd.	02-26-1991
		Process for recovering unreacted sucrose from acid	Dai-ichi Kogyo Seiyaku Co., Ltd.	02-26-1991
7	US5008387 A	Process for purifying sucrose fatty acid esters	Dai-ichi Kogyo Seiyaku Co., Ltd.	04-16-1991
8	US4889928 A	Sucrose alkyl 4,6-orthoacylates	Tate & Lyle Public Limited Company	12-26-1989
9	US4380476 A	Process for the preparation of 4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose (tgs)	Tate & Lyle Public Limited Company, A British Company	04-19-1983
10	US4977254 A	Process for the chlorination of sugars	Tate & Lyle Plc	12-11-1990
11	US4298730 A	Process for the production of a surfactant containing sucrose esters	Tate & Lyle Public Limited Company, A British Company	11-03-1981
12	US4611055 A	Production of sucrose fatty acid polyester	Dai-ichi Kogyo Seiyaku Co., Ltd.	09-09-1986
13	US3006208 A	Process of making sucrose esters	Tate & Lyle	12-07-1976

最终被采纳的无效US4980463的证据

- 专利价值判断新思路
- 专利无效检索
- 专利诉讼检索
- 竞争者分析

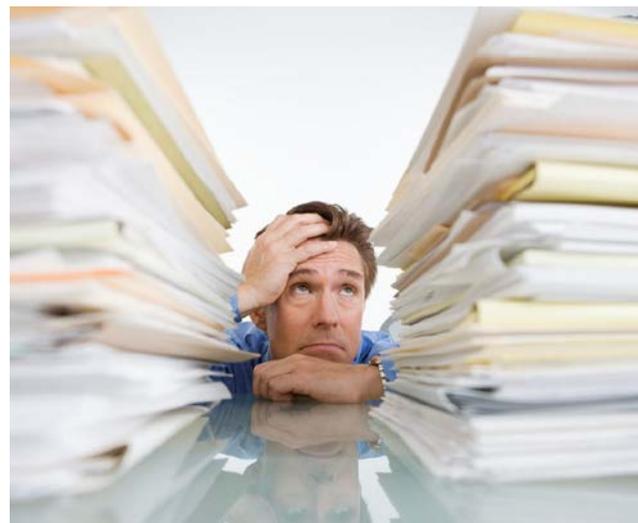
- ProQuest Dialog公司旗下最新的Innography专利平台
 - 集成世界专利、美国专利诉讼、美国商标数据；
 - 专利强度指标用于判断专利价值；
 - 气泡图分析竞争者差距；
 - 无效侵权检索独一无二；
 - 专利诉讼、异议一目了然。



- 根据世界知识产权组织的统计，专利文献中包含了世界上95%的研发成果。如果能够**有效利用**专利情报，不仅可以缩短60%的研发时间，还可以节省40%的研发经费。

- 如何才算有效？

- 有效利用不仅指检索工作
- 专利技术还有什么作用？
 - 避免重复立项，
 - 借鉴技术方法，
 - 缩短研究开发的时间，
 - 促进发明创造



● 采用什么专利分析方法？

● 常见定量分析

- 申请年份、专利权人、发明人统计分析
- IPC聚类分析
- 引证分析

所见即所得

● 特殊定性分析

- 无效分析
- 价值分析
- 技术差距分析

分析获所得

● 专利分析仅仅图表美观就够了吗？

如何判断专利的价值？

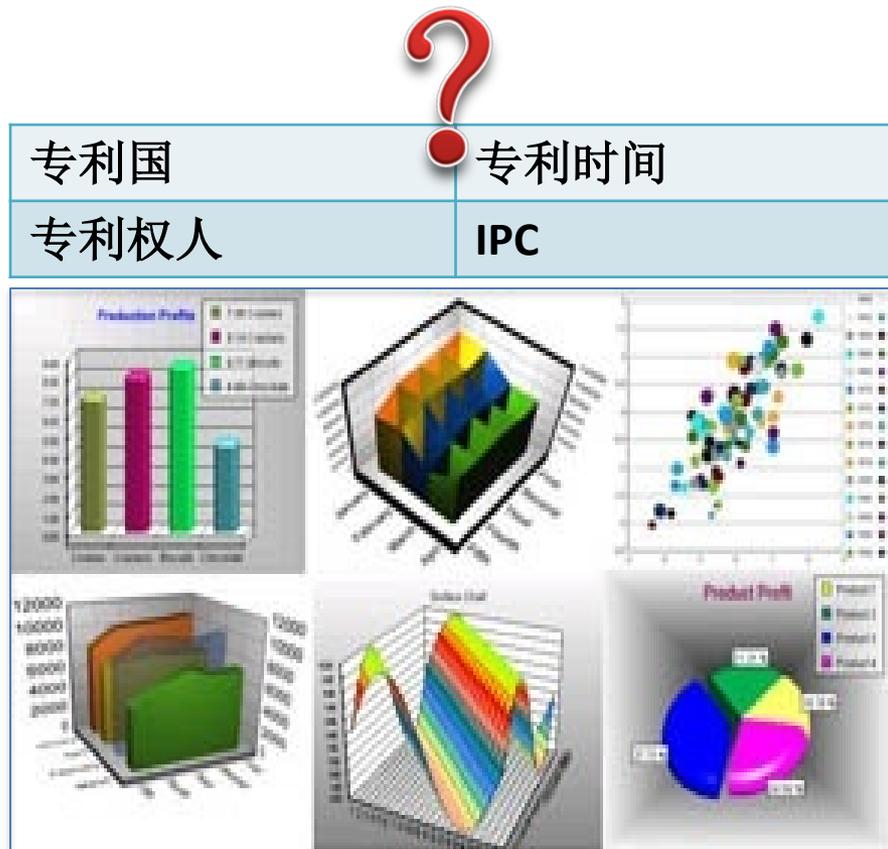
核心专利在哪里？

竞争者技术差距多大？

某专利能被无效吗？

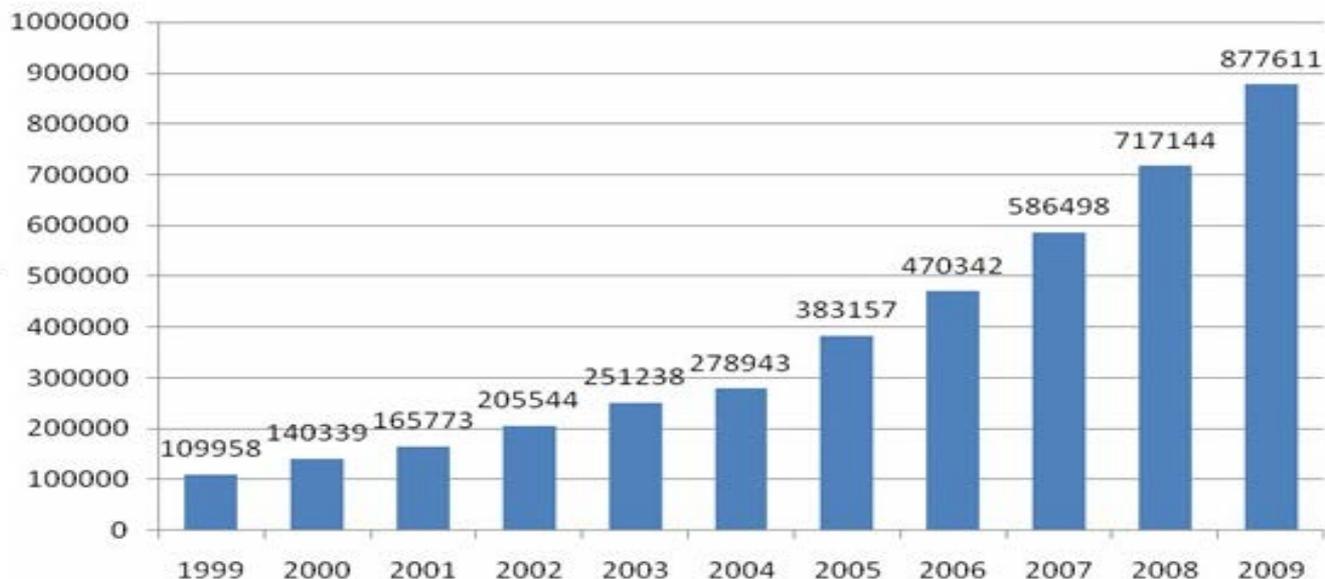
哪些专利有过诉讼？

哪些专利曾被异议？



- 2009年中国专利申请量继续平稳较快增长，全年共受理专利申请97万余件，比上年增长17.9%。发明专利申请量近23万件

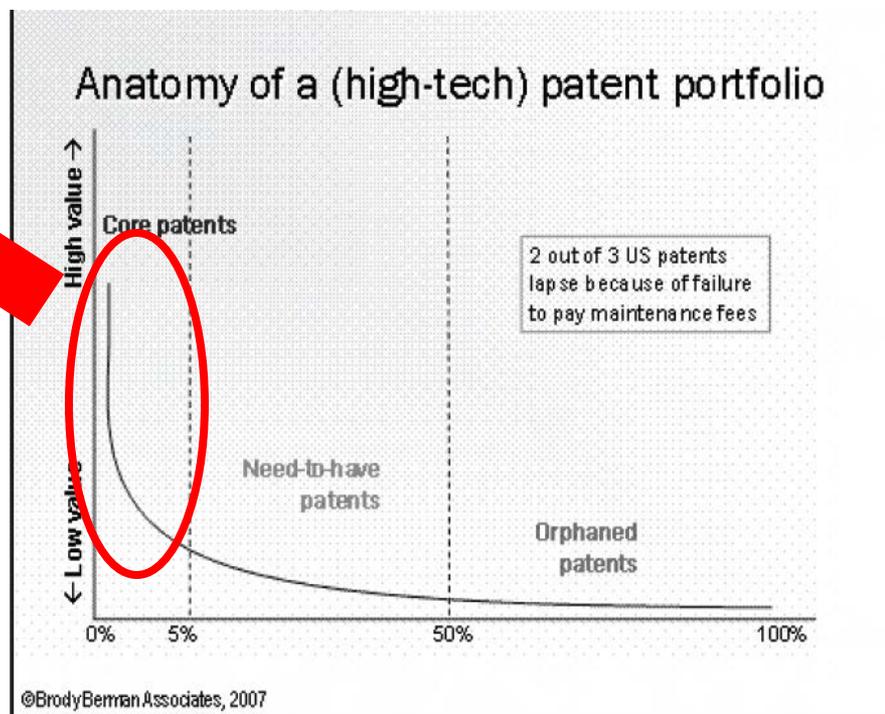
图1 2000年以来国内专利申请量



- 高价值专利比例低，挖掘难度大

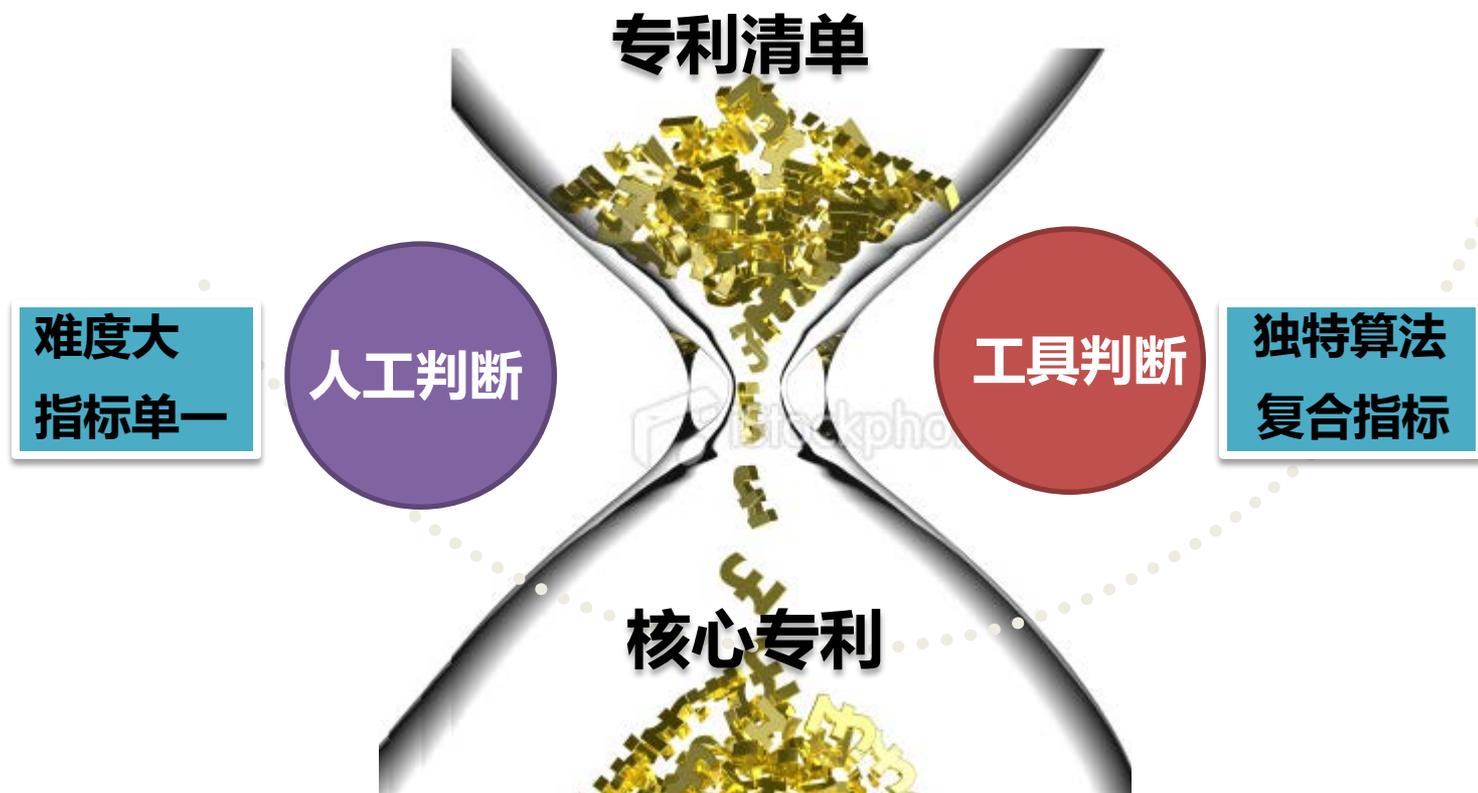
核心专利只占5%

快速从大量专利中识别与分析核心专利是关键！



Caption: Fewer than 5% and as few as 2% of a high-tech company's patents have discernable value to a company (Assets to Profits – Competing for IP Value and Return (Wiley, 2008)).

- 专利价值判断方式



- Innography专利价值判断研究成果
 - 加州大学伯克利分校
 - 乔治梅森大学
 - 2003年
 - 探讨：影响专利价值的因素

University of California at Berkeley, School of Law
Public Law and Legal Theory Research Paper Series
Research Paper No. 133

George Mason University School of Law
Law and Economics Working Paper Series
Research Paper No. 03-31

Valuable Patents

*John R. Allison, Mark A. Lemley,
Kimberly A. Moore and R. Derek Trunkey*

2003

1、权利要求数量

- 权利要求的数量代表专利保护范围的广度
- 涉案专利的权利要求数通常远高于非涉案专利

	独立权利要求数 平均值	从属权利要求数 平均值	权利要求总数 平均值
涉案专利	4.44	21.03	19.6
非涉案专利	2.75	12.12	13.0

美国

- ✓ 独立权利要求超过3项时，每超过一项收**\$110**;
- ✓ 权利要求总数超过20项，每超过一项收**\$26**;
- ✓ 每包含一项多项从属权利要求收**\$195**;

中国

- ✓ 权利要求数超过10项时，每项收取**RMB150**



2、引用与被引用

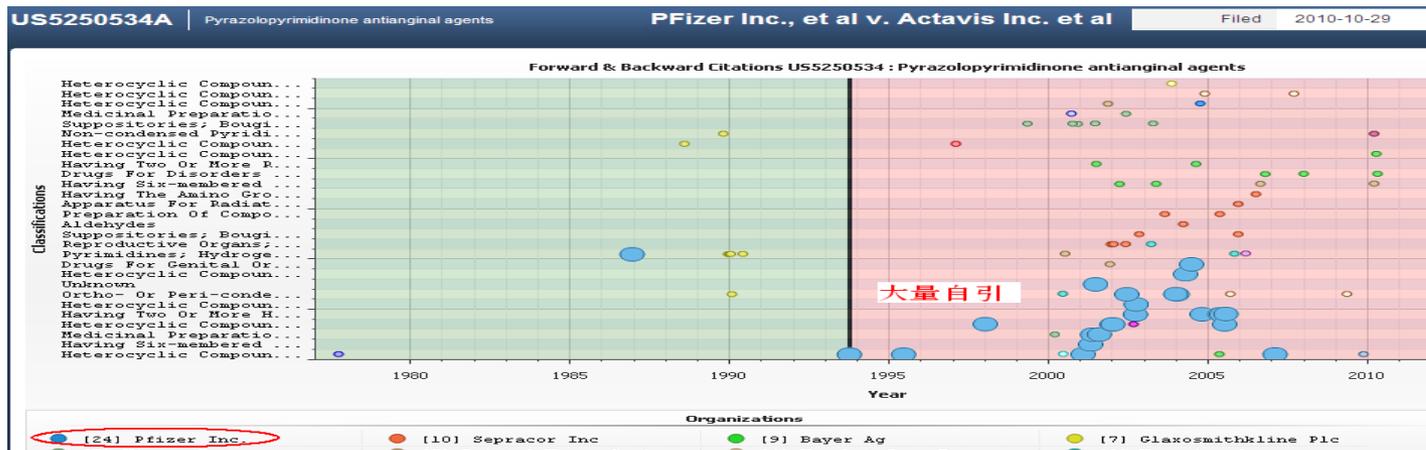
- 引用越高诉讼可能性越大

	涉案专利	非涉案专利	平均差率
平均引用数量	14.20	8.43	1.68倍

- 被引用越高诉讼可能性越大

	涉案专利	非涉案专利	平均差率
平均被引用数量	12.23	4.32	2.83倍

- 诉讼专利往往具有高自引



● 例如：RFID技术核心专利汇总——高引证高价值

	A	B	C	D	E	F	G
	Assignee	Publication Number	Title	Number of Claims	Number of Backward References	Number of Forward References	Strength
1							
2	Mitsubishi Mater	US5963134	Inventory sys	22	358	309	90th-100th Percentile
3	Checkpoint System	US6025780	Rfid tags whic	24	232	200	90th-100th Percentile
4	Intermec Ip Corp	US6104291	Method and app	58	167	147	90th-100th Percentile
5	Checkpoint System	US6195006	Inventory sys	18	174	145	90th-100th Percentile
6	Round Rock Resea	US6112152	Rfid system in	41	160	136	90th-100th Percentile
7	Sensormatic Elec	US5949335	Rfid tagging s	29	190	135	90th-100th Percentile
8	Round Rock Resea	US5300875	Passive (non-c	28	149	135	90th-100th Percentile
9	Intermec Ip Corp	US6318636	Method and app	11	164	119	90th-100th Percentile
10	Intermec Ip Corp	US6236223	Method and app	56	128	104	90th-100th Percentile
11	Datalogic Mobile	US6415978	Multiple techn	43	145	101	90th-100th Percentile
12	Sensormatic Elec	US6354493	System and me	25	150	100	90th-100th Percentile
13	Moore North Amer	US6451154	Rfid manufactu	18	127	98	90th-100th Percentile
14	X-ident Technolo	US6206292	Surface-printe	25	120	98	90th-100th Percentile
15	Round Rock Resea	US6037879	Wireless ident	32	120	98	90th-100th Percentile
16	Intermec Ip Corp	US6278413	Antenna struc	38	112	98	90th-100th Percentile
17	Microchip Techno	US6043746	Radio frequen	18	110	98	90th-100th Percentile
18	Moore North Amer	US6259369	Low cost long	28	113	93	90th-100th Percentile
19	Intermec Ip Corp	US6294997	Rfid tag havin	23	109	92	90th-100th Percentile
20	Sensormatic Elec	US6169483	Self-checkout,	44	141	91	90th-100th Percentile
21	Intermec Ip Corp	US6249227	Rfid integrat	7	107	91	90th-100th Percentile
22	Round Rock Resea	US5323150	Method for rec	35	107	87	90th-100th Percentile
23	Round Rock Resea	US5995898	Rfid system in	31	105	86	90th-100th Percentile
24	Escort Memory Sy	US6069564	Multi-directio	13	100	82	90th-100th Percentile
25	Zih Corp., Bermu	US6409401	Portable prin	20	99	81	90th-100th Percentile
26	Symbol Technolog	US6264106	Combination ba	27	118	75	90th-100th Percentile
27	Round Rock Resea	US6714121	Rfid material	60	108	74	90th-100th Percentile

3、同族专利数量

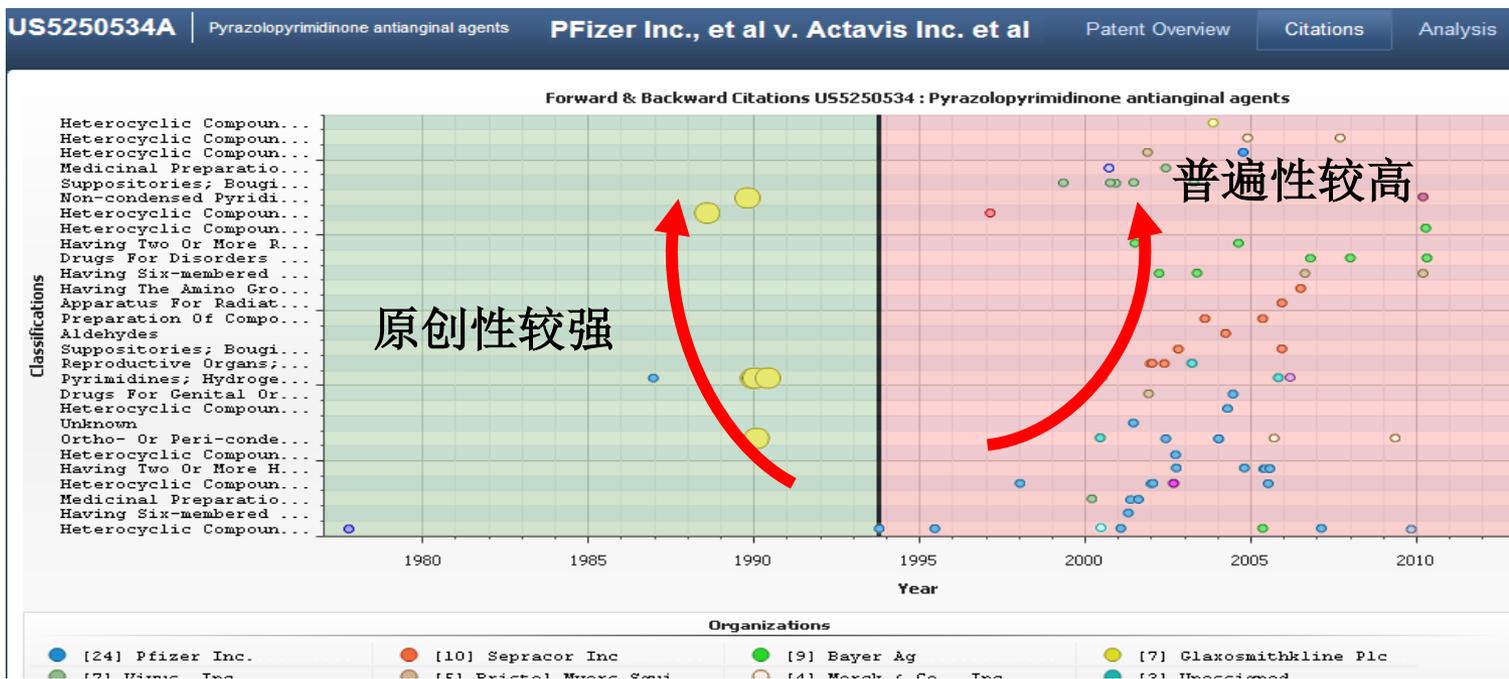
- 诉讼专利所属的专利家族平均由 **1.85** 件专利组成，一般专利的专利家族平均只有 **1.22** 件。换言之，在「规模」上，诉讼专利所属专利家族比一般专利所属专利家族大 **50%**。
- 例如：“达菲”的化学物质专利有**47**篇同族专利

1 [New tetrahydropyridine and cyclohexene cpds. - for inhibiting viral and bacterial neuraminidase\(s\)](#)
 Patent Assignee: GILAD SCI INC, GILEAD SCI INC -
 Patent Family (47 patents, 66 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1996026933	A1	19960906	WO 1996US2882	A	19960226	199642	B
AU 199653571	A	19960918	AU 199653571	A	19960226	199701	E
EP 759917	A1	19970305	EP 1996912404	A	19960226	199714	E
			WO 1996US2882	A	19960226		
BR 199607098	A	19971104	BR 19967098	A	19960226	199751	E
			WO 1996US2882	A	19960226		
CZ 199702690	A3	19971112	WO 1996US2882	A	19960226	199801	E
			CZ 19972690	A	19960226		
NO 199703908	A	19971027	WO 1996US2882	A	19960226	199802	E
			NO 19973908	A	19970826		
ES 2118674	T1	19981001	EP 1996912404	A	19960226	199848	E
MX 199706496	A1	19971101	MX 19976496	A	19970826	199902	E
US 5866601	A	19990202	US 1995395245	A	19950227	199912	E
			US 1995476946	A	19950606		
JP 11501908	W	19990216	JP 1996526442	A	19960226	199917	E

4、普遍性与原创性原则

- 普遍性：计量某项专利被隶属不同专利分类的文献引用 (forward citation) 的分散程度
- 原创性：计量某项专利引用 (backward citation) 不同专利分类的文献的分散程度



5、专利申请时长（PTO Length）

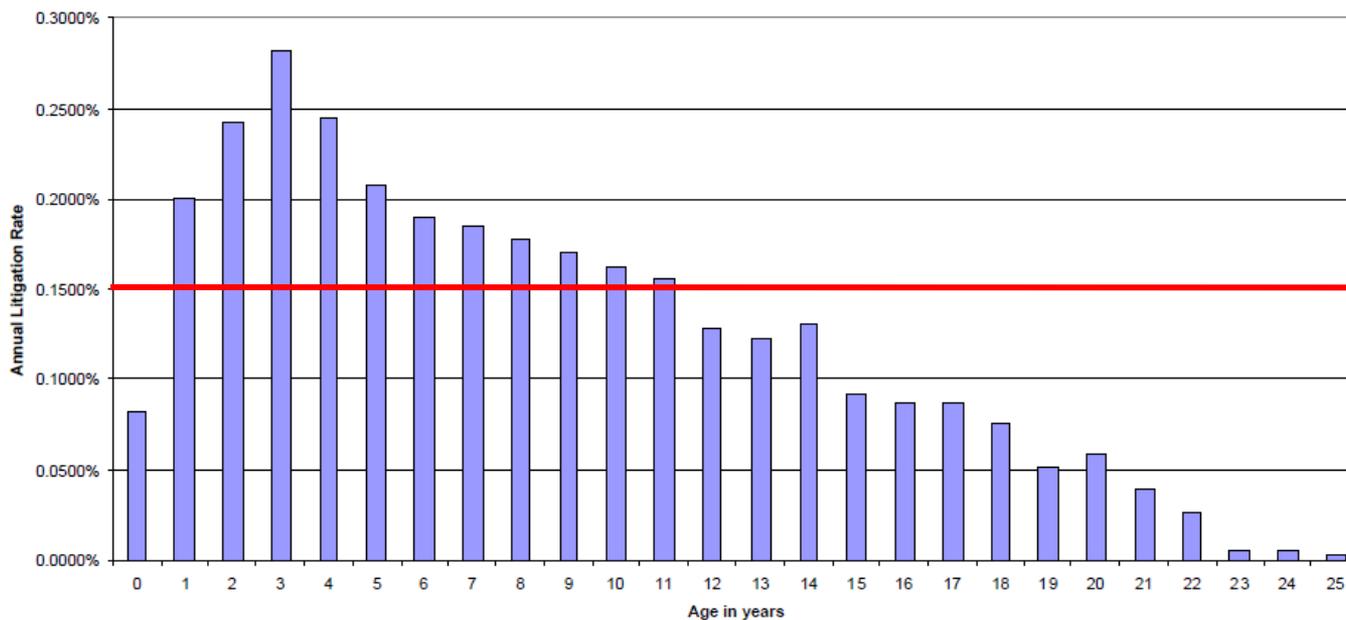
- 指专利从申请日起至公开日或授权日的时间跨度
- 涉案专利平均时长4.13年，非涉案专利2.77年
 - eg. “德州仪器集成电路专利”、“彩铃专利”

Curr. Assignee	Nycomed GmbH,germany	Ultimate Parent	Novartis Ag
Orig. Assignee	Altana Pharma Ag	Curr. Assignee	Novartis Ag, Switzerland
Location	DE	Orig. Assignee	Chiron Corporation
Inventors	Dietrich, Rango Ney, Hartmut Eistetter, Klaus	Location	US
Inventors	Nuss, John N Pecchi, Sabina Renhowe, Paul A	# Claims	37
# Claims	16	PTO Length	4.81 years
PTO Length	0.92 years	# Forward Citations	0
# Forward Citations	0	# Backward Citations	36
# Backward Citations	0	Strength	90th-100th Percentile
Strength	0th-10th Percentile		

6、专利年龄与诉讼概率

- 专利年龄（Age）是指专利授权后至今已消耗的保护时间
 - eg. 专利年龄VS.专利诉讼率

Litigation Rate by Age from Grant Date

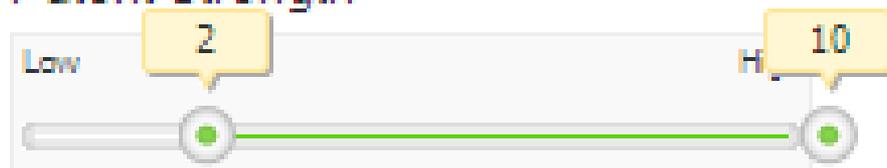


高压线

● Innography “专利强度” 指标汇总

- ✓ 专利权利要求数量
- ✓ 专利引用次数和被引次数
- ✓ 专利家族
- ✓ 专利从申请到公开的时间长度
- ✓ 普遍性与原创性
- ✓ 其他

Patent Strength



# Claims	210
PTO Length	2.66 years
# Forward Citations	21
# Backward Citations	45
Strength	90th-100th Percentile

● 核心专利的特征

● US 6635906 具有异型掺杂岛的半导体器件耐压层

- ✓ 7件同族
- ✓ 被引21次
- ✓ 审查时间6年
- ✓ 两次转让
- ✓ 两起诉讼

Priority Date	1993-10-29
Filed Date	1997-10-17
Publication Date	2003-10-21
Curr. Assignee	Third Dimension (3d) Semiconductor, Inc., Californ
Orig. Assignee	Third Dimension (3d) Semiconductor
Location	Chengdu, CN
Inventors	Chen, Xingbi
# Claims	3
PTO Length	6.01 years
# Forward Citations	21
# Backward Citations	21
Strength	90th-100th Percentile

专利的价值不能仅依靠单一指标判断

- Innography提高专利阅读效率
 - 以往按照时间顺序依次阅读专利
 - 现在按照专利强度由高到低看

Atorvastatin | Return to Project »

Results: 337 Patents

Clear All

No Group Group View Table Grid

Patent Strength Sort

Relevance

Patent Strength

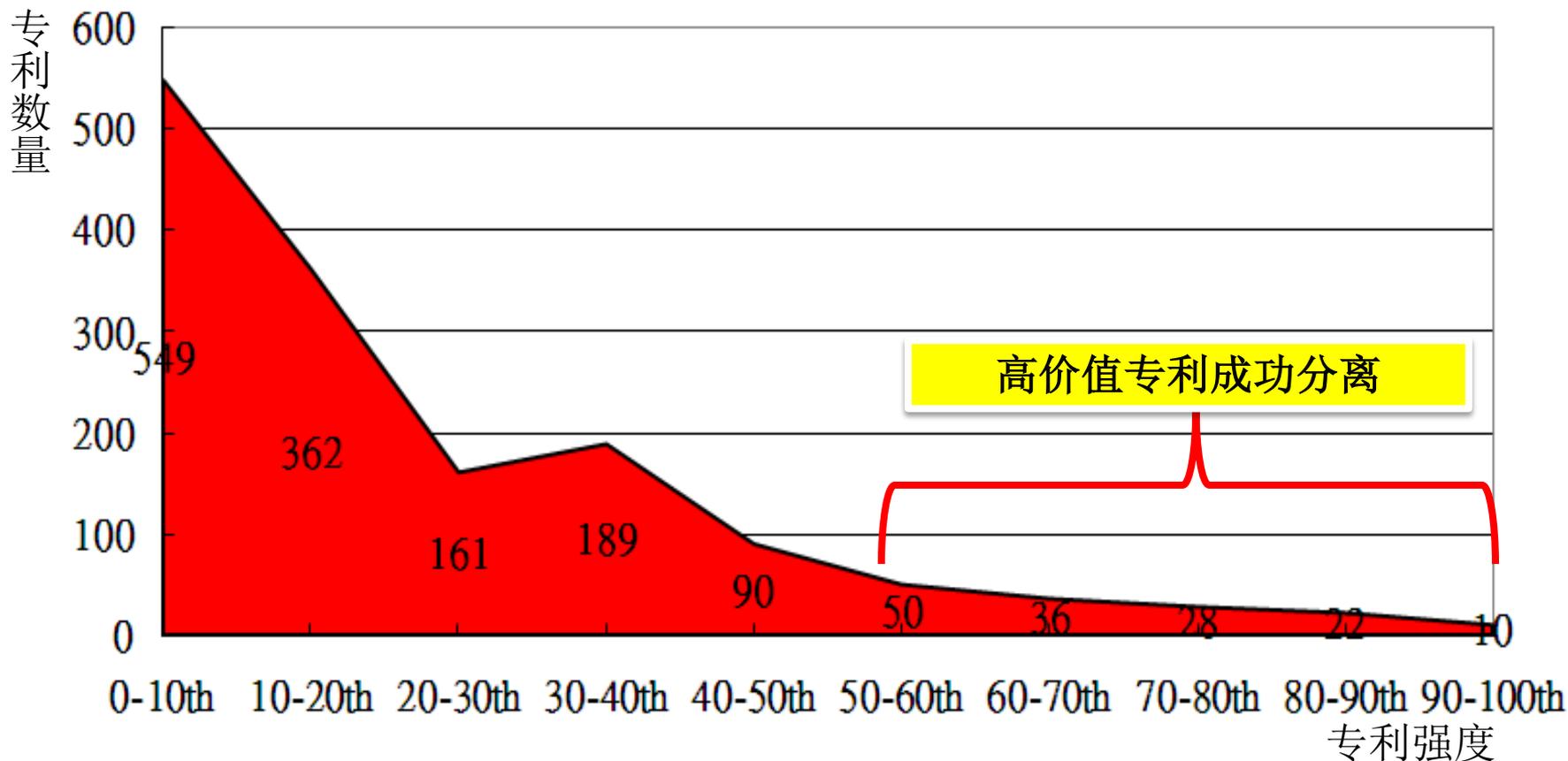
Patent Title Published

Publish Date

专利按强度排序

<input type="checkbox"/>	#	ID	Title	Company	Published
<input type="checkbox"/>	4	EP0409281 B1	(r-(r*r))-2-(4-fluorophenyl)-beta,delta-dihydroxy-5-(1-methylethyl-3-phenyl-4((phenylamino)-carbonyl)-1h-pyrrole-1-heptanoic acid, its lactone form and salts thereof	Warner-lambert Company	10-31-2001
<input type="checkbox"/>	5	US5968983 A	Method and formulation for treating vascular disease	Palmetto Pharmaceuticals, Llc, Georgia	10-19-1999
<input type="checkbox"/>	6	US2005059023 A1	Methods and kits for monitoring resistance to therapeutic agents	Scantibodies Laboratory, Inc., California	03-17-2005
<input type="checkbox"/>	7	US7411075 B1	Polymorphic form of atorvastatin calcium	Teva Pharmaceutical Industries Ltd.	08-12-2008

- “专利强度”将海量专利“读薄”挖掘核心专利（共1497件专利）



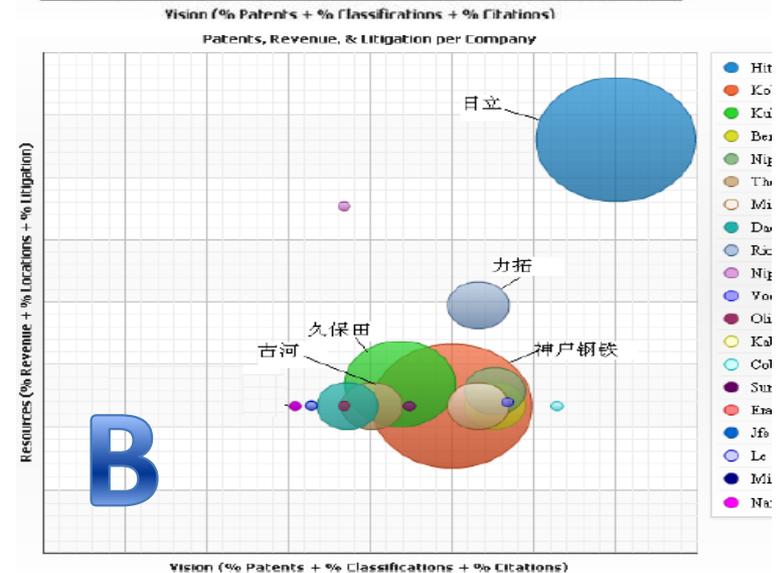
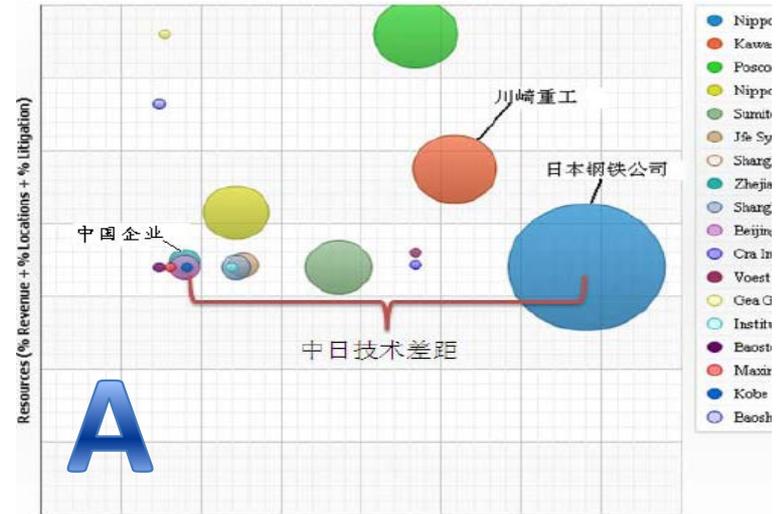
专利气泡图分析

● 竞争者差距分析——气泡图

- 颜色区别专利权人
- 气泡大小代表专利数量
- 横坐标代表技术综合指标
- 纵坐标代表企业实力指标

● eg1. 金属冶炼行业竞争情况分析

- A图看出该领域中日技术差距显著
- B图看出该领域各企业竞争胶着

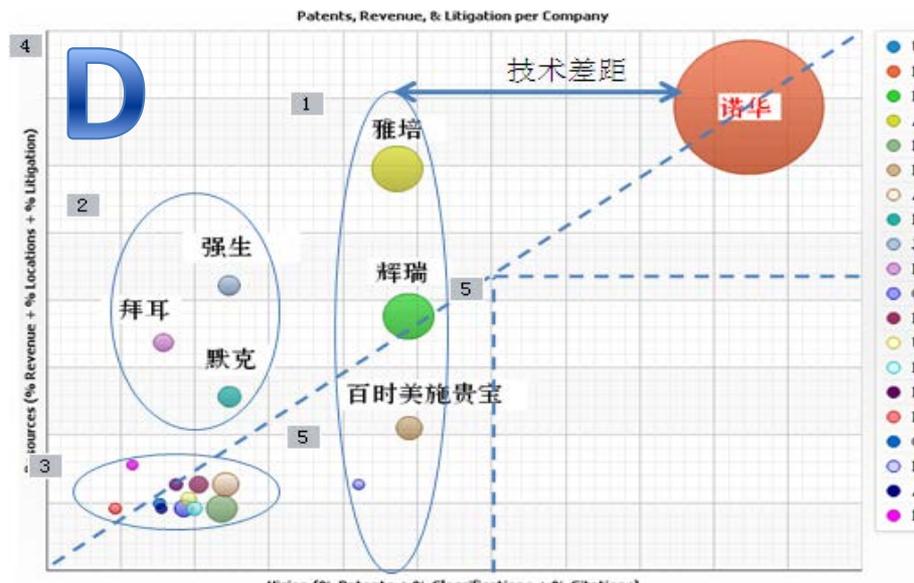
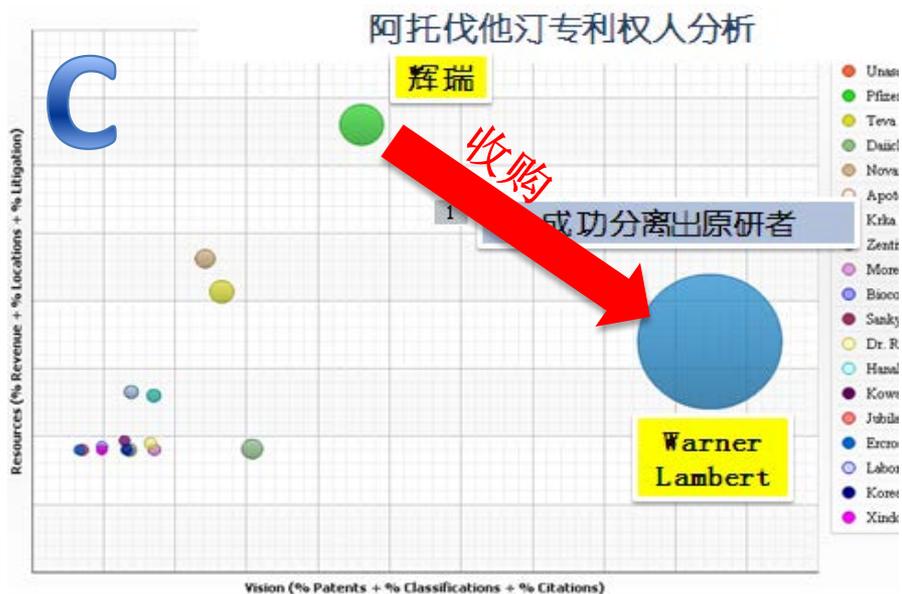


专利气泡图分析

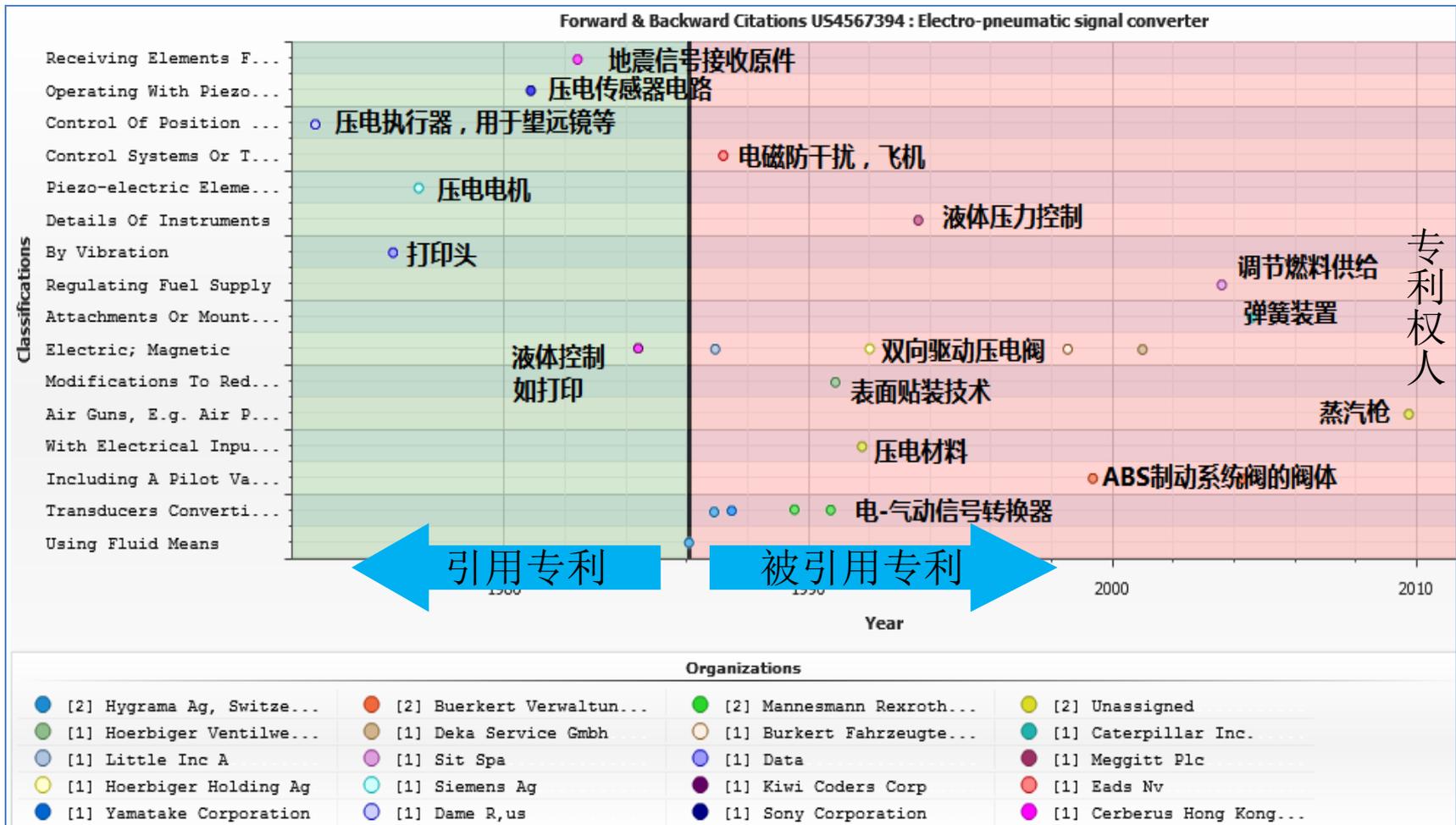
● eg2. 制药行业某产品专利竞争情况分析

● C图反映了兼并收购的本质

● D图反映了阶梯状技术差距



专利引证分析图



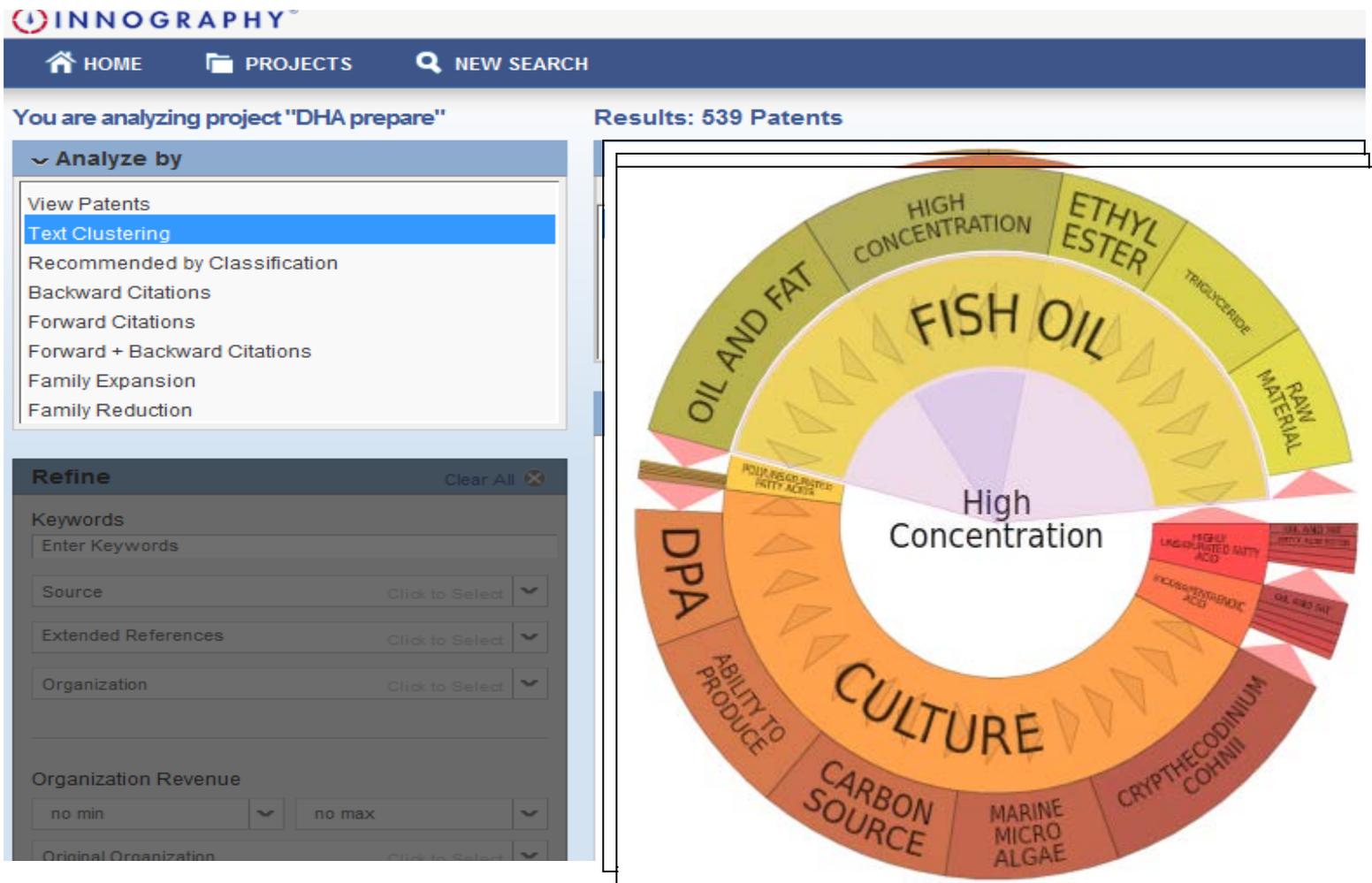
专利聚类

专利权人

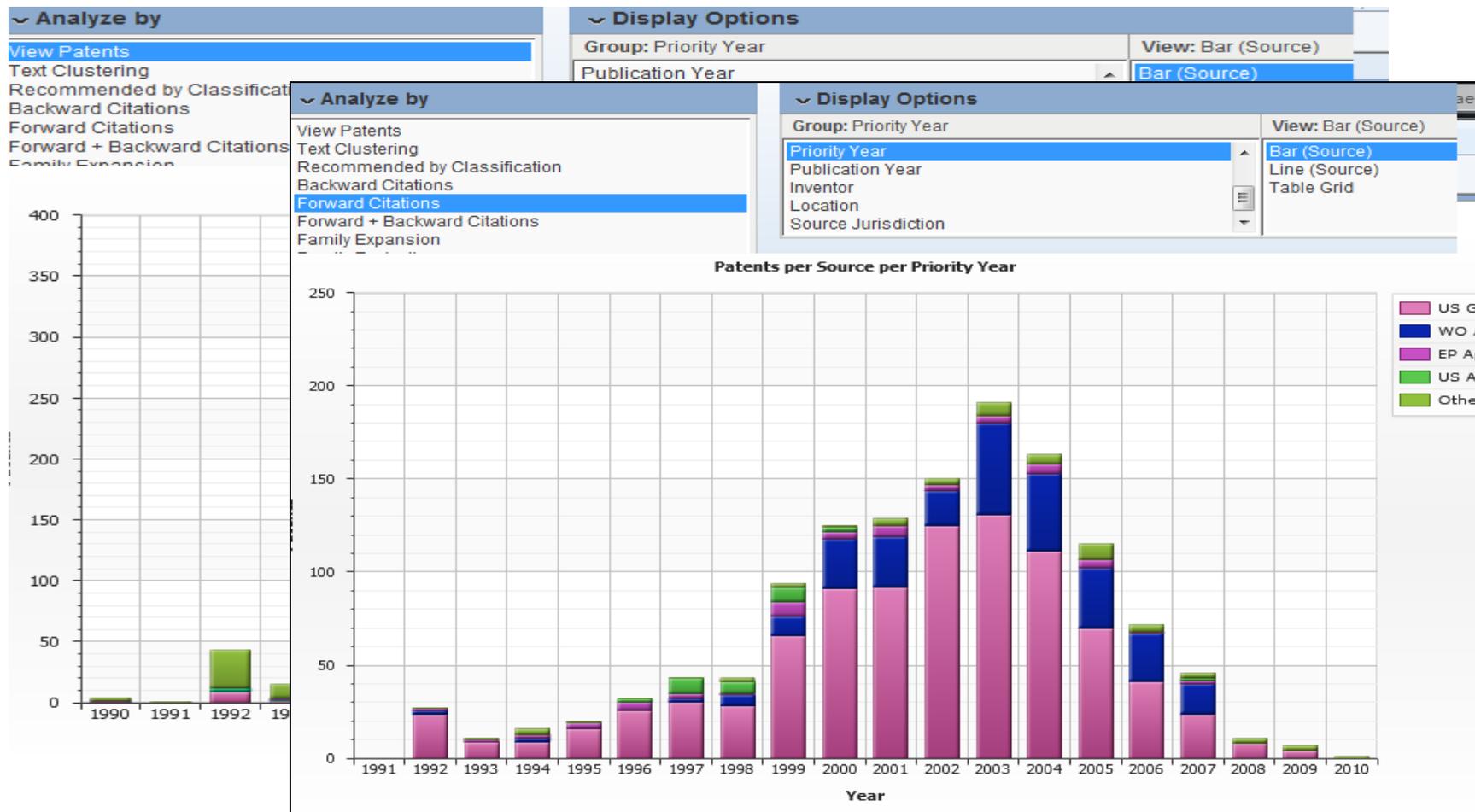
引用专利

被引用专利

快速将专利分组



● 通过被引发现行业趋势



专利无效分析

- 无效中国专利——施耐德VS正泰电气
 - 施耐德电器的发明专利 CN1618110（美国同族为US2005122117），在中国授权
 - 国家知识产权局专利复审委员会无效复审中的对比文件：西门子的CN1207200（美国同族US6225807），影响了本案的新颖性和创造性

US2005122117A1

Method for determining wear of a switchgear contacts

Patent C

Invalidation

- Semantic Search
- Classification Analysis
- Citation Mining
- Invalidation
- Infringement

无效检索

Enter Keywords

Similarity

Low High

Source

click to select

Organization

click to select

Results: 163 Patents

No Group

Group

Table Grid

View

<input type="checkbox"/>	#	ID	Title
<input type="checkbox"/>	1	US6538347 B1	Electrical switchgear with synchronous control system and actuator
<input type="checkbox"/>	2	DE19504714 B4	Verfahren und vorrichtung zur Überwachung einer zustandsgröße eines leistungsschalters

案例分享

Results: 163 Patents

No Group		View		Relevance	Sort
<input type="checkbox"/>	#	ID		Relevance	
<input checked="" type="checkbox"/>	16	US6225807 B1	Method of establishing the residual useful life of contacts in switchgear and associated arrangement	Siemens Ag	05-01-2001
<input type="checkbox"/>	17	US6211665 B1	Solenoid motion detection circuit	Alliedsignal Inc.	04-03-2001
<input type="checkbox"/>	18	US4809742 A	Control valve assembly including valve position sensor	Pneumo Abex Corporation	03-07-1989
<input type="checkbox"/>	18	US4809742 A	Control valve assembly including	Pneumo Apex	03-07-1989

复审委给出的无效
对比文件US6225807
排在第16位

Sort dropdown menu options:

- Relevance
- Patent Strength
- Patent Title
- Publish Date

专利诉讼分析

快速寻找涉案专利



- 例如：RFID技术领域共计3942件专利
 - 其中涉案专利31件
 - 被异议专利5件

Return to Project » Analyzing Project "RFID"

View Patents

Refine Clear All

Keywords

Results: 3942 Patents

No Group Group Table Grid View Relevance Sort

<input type="checkbox"/>	#	ID	Title
<input type="checkbox"/>	6	US6557758 B1	Direct to package printing system with rfid write/read capability
<input type="checkbox"/>	7	US6259369 B1	Low cost long distance rfid reading
<input type="checkbox"/>	8	US5963134 A	Inventory system using articles with rfid tags
<input type="checkbox"/>	9	US7253717 B2	Method and system for communicating with and tracking rfid transponders

+fulltext Full Patent Text

+exact Exact Word

+litigated **查找涉案专利** Litigation Patents

+opposition **查找被异议专利** Opposed Patents

US Classification click to select

Priority Date clear all

MM DD YYYY - MM DD YYYY

Publish Date clear all

MM DD YYYY - MM DD YYYY

快速寻找涉案专利



Avery Dennison Corporation v. Alien Technology Corporation

Litigation Search

Refine

Keywords

@patentnumber US73680

Plaintiff

Defendant

IP Classification

US Classification

Patent

Award Amount

no min

File Date

Project Info

Not found in any active project

Case Overview

Links	PACER Document Document
Filed	2008-03-27
Terminated	
Suit Nature	830 Patent
Cause	15:1126 Patent Infringement
Court	ohndce
Judge assigned	Judge Kathleen M. O'Malley
Jurisdiction	Federal Question
Jury demand	Plaintiff
Action	
Case of rec.	1:2008cv00795

Parties

Patents

Type	Times Mentioned	ID	Title
Complaint	16	US6951596	Rfid label technique
Complaint	16	US7307527	Rfid device preparation method
Complaint	15	US7292148	Method of variable pos mounting for rfid trans
Amended Complaint	14	US7361251	Rfid label technique
Amended Complaint	14	US7368032	Rfid label technique
Amended Complaint	14	US7359823	Rfid device variable tes methods

Docket Items

Date Filed	Date Entered	Text
2009-02-10	2009-02-10	Memorandum & Order. Alien's Motion to seal certain portions of injunction hearing transcript, certain exhibits and deposition tra Doc #'s 83 , 98) is GRANTED in part and DENIED in part. To th appropriate, the record shall be sealed upon the completion of described herein. Judge Kathleen M. O'Malley on 2/10/2009.(H, 02/10/2009)

专利诉讼检索



INNOGRAPHY Manage Ac

Patent Number

[HOME](#) [PROJECTS](#)

Home

Query Builder

[Patents](#) [Litigation](#) [Trademarks](#)

DATE RANGE

Filed Date MM DD YYYY - MM DD YYYY

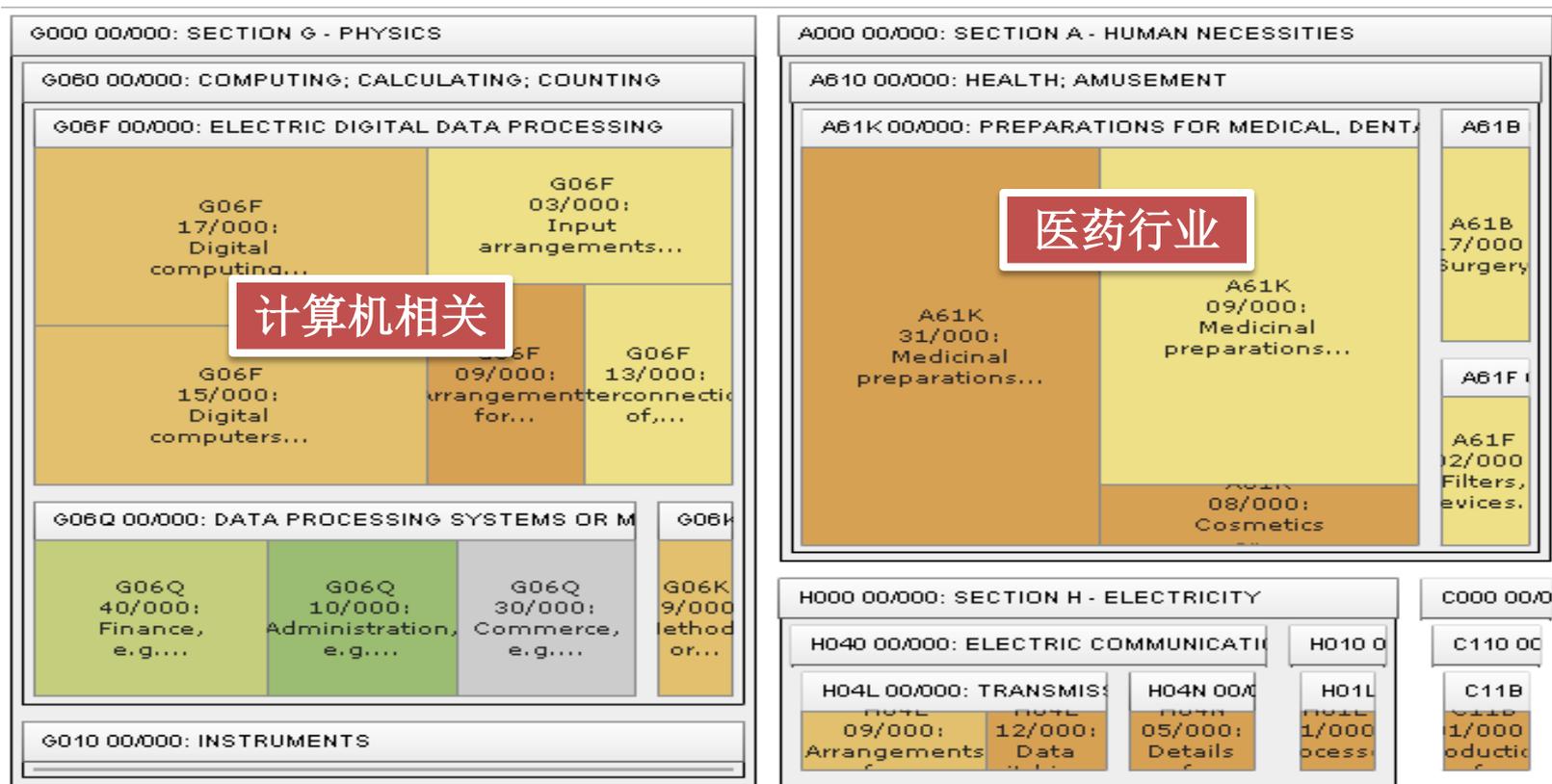
QUERY TEXT

Search for litigation where contains

- (Legal)
- Law Firm
- Parties (All)
- Patent Abstract
- Patent Body
- Patent Claims
- Patent Number
- Patent Title
- Plaintiff
- Title

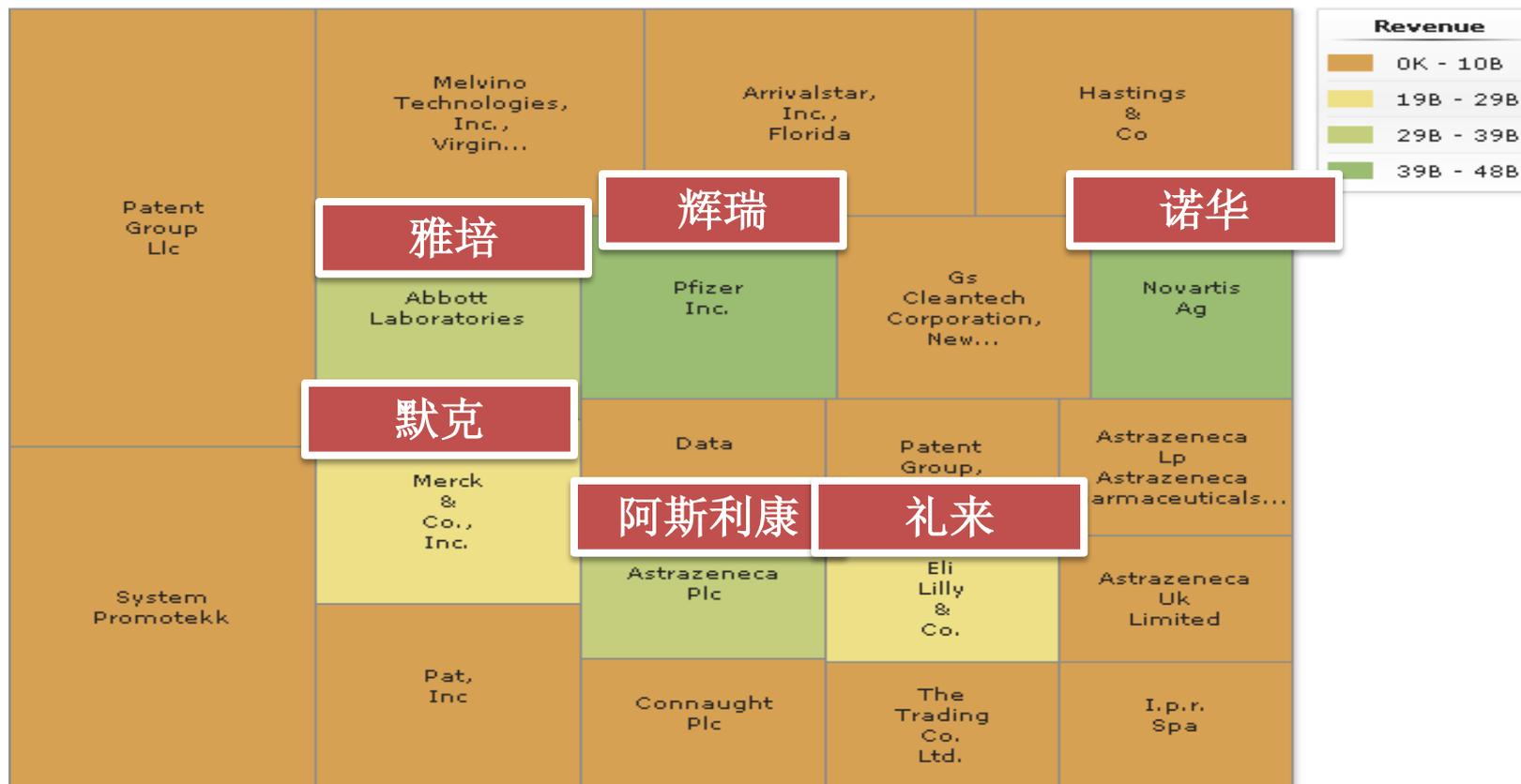
[Show query](#)

- 检索2010年各行业涉案专利并分析
 - 1、统计涉案专利的IPC得到专利诉讼最多的行业



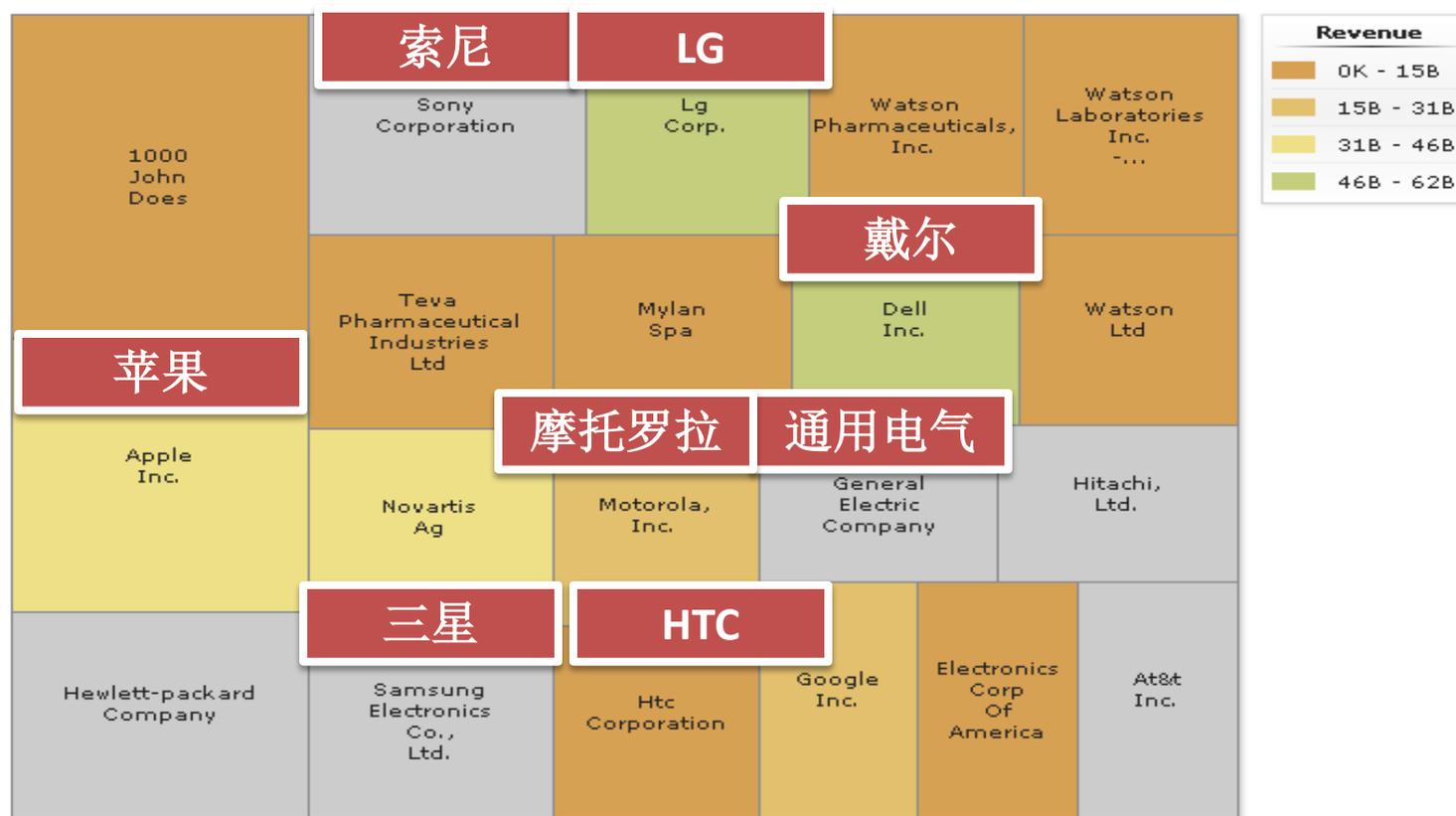
检索2010年各行业涉案专利并分析

2、原告统计（面积、颜色）



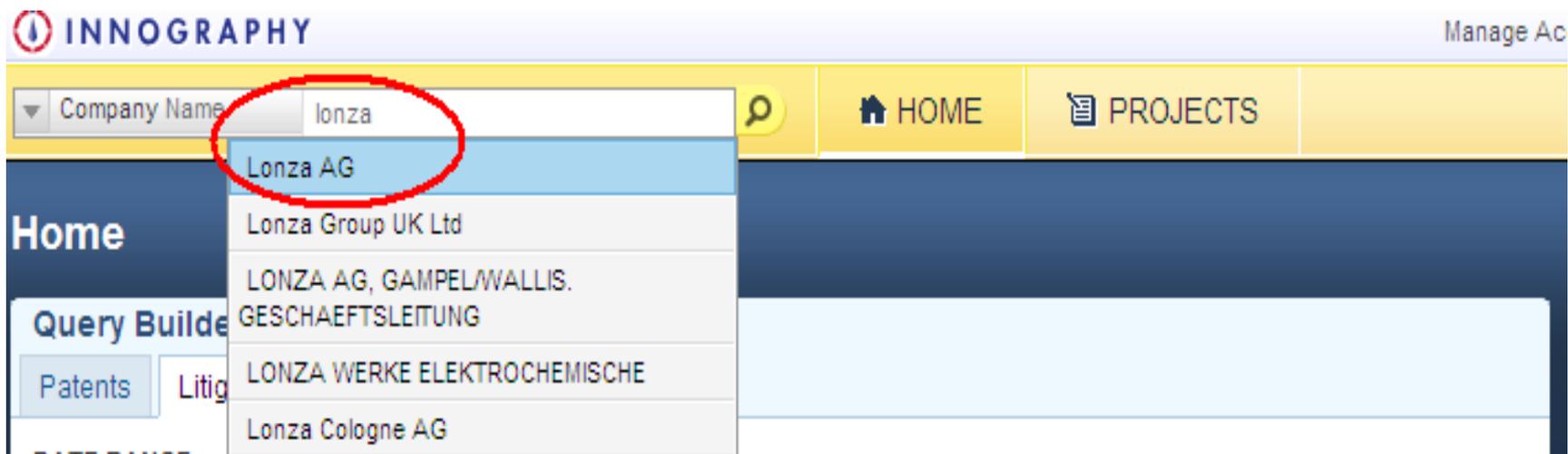
检索2010年各行业涉案专利并分析

3、被告统计（面积、颜色）



竞争者分析

- Innography 集成了包括邓白氏在内的公司名录数据库
 - 1. 1300万公司信息包括财务,信用,雇员,联系方式等信息
 - 2. 公司拥有专利、诉讼、商标全览
 - 3. 相近技术, 根据该公司专利分类代码组合检索获得
 - 4. 专利转让, 包括转出和转入



竞争者分析

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竞争者分析

Lonza AG

Company Overview

Analysis

Company Overview

Website	http://www.lonza.ch
Ultimate Parent	N/A
Validation Source	D&B
Last Updated	2009
Stock Symbol	
Market Cap	N/A
Annual Revenue	N/A
Location	Visp, Valais, Switzerland
# Employees	3,000

公司概况

Project Info

Not found in any active project

Patents

Active	4534
Expired	6172
Total	10706

专利数量

Litigation

[Full History >](#)

# Plaintiff cases	11
Avg trial length	0.56 years
Award range	\$0 - \$0
# Defense cases	6
Avg trial length	2.83 years
Penalty range	\$0 - \$0

诉讼数量

Subsidiaries and Misspellings

[Report an Error](#)

A B C D E F G H I J K L M N O P Q R S T U V W

Click the alphabetical links to browse the direct subsidiaries, alternate names, and misspellings identified for this organization, or select View All to see the complete listing.

Trademarks

Registered	76
Pending	4
Dead	90
Total Trademarks	170

商标数量

竞争者分析

Lonza AG

Similar Technologies

- Similar Technologies
- In Assignment
- Out Assignment
- Hidden Assignments
- Virtual Entity
- Virtual Entity Comparison

相似技术专利

专利转让

竞争者对比

Source click to select

Organization click to select

Organization Revenue

no min no max

Original Organization click to select

IP Classification click to select

US Classification click to select

Results: 660235 Patents

No Group Group Table Grid View

<input type="checkbox"/>	#	ID	Title
<input type="checkbox"/>	1	US20090246837 A1	Process for the preparation of chiral amines
<input type="checkbox"/>	2	IT1206727 B	Processo per la preparazione di polialogenati.
<input type="checkbox"/>	3	JP61161225 A	Manufacture of polyhalogenate
<input type="checkbox"/>	4	IT8519080 D0	Processo per la preparazione di polialogenati.
<input type="checkbox"/>	5	JP1916356 C	Manufacture of polyhalogenate

● Out assignment 专利权对外转让

Out Assignment

Refine Clear All

Keywords

Source click to select

Organization click to select

Organization Revenue

Original Organization click to select

IP Classification click to select

US Classification click to select

Priority Date

clear all

Method for the preparation of 6-hydroxy-2,5,7,8-tetraalkyl-2-(4-aminophenoxy)methyl) chromans

Bibliographic data Description Claims Mosaics Original document **INPADOC legal status**

The EPO does not accept any responsibility for the accuracy of data and information originating from other authorities than the EPO; in particular, the EPO does not guarantee that they are complete, up-to-date or fit for specific purposes.

Legal status of US5310952 (A) 1994-05-10:

US F	1969593 A	(Patent of invention)
PRS Date :	1993/02/19	
PRS Code :	AS	
Code Expl.:	ASSIGNMENT	
NEW OWNER :	LONZA LTD., SWITZERLAND	
EFFECTIVE DATE :	19930209	
FURTHER INFORMATION :	ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNOR:HEVELING, JOSEF;REEL/FRAME:006446/0088	
PRS Date :	1993/02/19	
PRS Code :	AS	
Code Expl.:	ASSIGNMENT	
NEW OWNER :	SANKYO COMPANY LTD., JAPAN	
EFFECTIVE DATE :	19930209	
FURTHER INFORMATION :	ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNOR:HEVELING, JOSEF;REEL/FRAME:006446/0088	

● 竞争者的类似技术专利

Lonza AG Company Overview **Analysis**

Similar Technologies ▼

Results: 600862 Patents, 22420 Organizations

Organization Group ▼ Table Grid View ▼ Relevance Sort ▼ Item Actions ▼

<input type="checkbox"/>	#	ID	Title	Assignee	Published
▶			L'oreal Sa		27356
▶			Basf Se		25510
▶			Bayer Ag		24237
▶			Sanofi-aventis Sa		19353
▶			Pfizer Inc.		13047
▶			The Dow Chemical Company		12912
▶			Novartis Ag		12020
▶			The Procter & Gamble Company		11650
▶			Merck & Co., Inc.		9565
▶			Akzo Nobel N.v.		8797
▶			Unilever Plc		8198
▶			Kao (hong Kong) Ltd		8153
▶			Roche Holding Ltd.		7799
▶			F i Du Pont De Nemours & Companv		6465

Refine Clear All

Keywords
Enter Keywords

Source click to select ▼

Organization click to select ▼
1 items clear all

Unassigned 61763

Organization Revenue
no min ▼ no max ▼

Original Organization click to select ▼

IP Classification click to select ▼

US Classification click to select ▼

Priority Date
clear all
MM DD YYYY - MM DD YYYY

● 竞争者对比分析



Thank you!

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王栋

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Email:tech@ourchem.com

Website: www.ourchem.com