

專利分析與服務講座 (三)

馬仁宏 博士
rhmaa@mail.stpi.org.tw
 國家實驗研究院科技政策研究中心
 2005年8月5日

內容



- 複習
- 專利資料庫delphion基本介紹
 - delphion專利資料庫介紹
 - 基本檢索與進階檢索
 - 特殊功能說明與derwent資料查詢
- 專利地圖及其應用
- 範例研究 - OLED

網頁結構

The image shows a Yahoo! search results page for the query '藝人私秘曝光'. Callouts point to various elements: 'Title' points to the search bar area, 'URL' points to the search engine logo, 'Hyper link' points to a search result link, and 'Text' points to the main content area of a search result.

如何google?

	說明	語法	範例
欄位	網頁名稱	allintitle:	allintitle: patent
	網頁內文	allintext:	allintext: patent
	URL	allinurl:	allinurl: patent
布林運算符號	超連結	allinanchor:	allinanchor: patent
	AND	空白或+	Star Wars Episode +I
	OR	OR	vacation london OR paris
其他搜尋功能	NOT	-	bass -music
	完整字串	" "	"patent map"
	同義字	~	~food
	在某網域中	site:	patent site:mit.edu
	檔案格式	filetype:	filetype: doc

- allintitle: "quantum dot" filetype:doc
- carbon nanotube site:edu.tw

專利說明書首頁 (美國)

The image shows a US Patent document page for Patent No. US 6,478,839 B2. It includes fields for Title, Abstract, Claims, Inventor, Assignee, and a table of references. The table lists various patent numbers and their corresponding dates.

WIPS - 重要欄位

- KEY: Frontpage+ First claim
- TI: Title
- AB: Abstract
- CLA: Claims
- AP: Assignee (Applicants)
- INV: Inventor
- IPC: Any IPC Code
- UC: US Class- original or current
- PN: Publication Number
- PD: Published Date
- AD: Filed Date
- CL: First claim
- DSC: Description
- PRC: Priority country
- APC: Applicant country
- APS: Standardized applicant's name
- INVC: Inventor country
- RPN: US reference patent number
- UCC: UPC of current
- UCO: UPC of original
- IPCM: IPC main

WIPS - 運算元

- Boolean Operators
 - AND, &; A AND B
 - OR, blank space; (A B)
 - XOR; A XOR B
 - NOT; A NOT B
- Exact words
 - ^^
- Adjacent Operators
 - ADJ; A ADJ B; A ADJ[n=1~99] B
 - NEAR; A NEAR B; A NEARJ[n] B; A NEAR3 B
- Others:
 - *; multi-; F16H*
 - ?; single-; car??

WIPS - 基本組成單元

關鍵字字串 (Siemens or Hyundai).ap.

基本關鍵字所組成字串。前後以刮號 () 包圍

字串所在欄位。前後以.包圍

日期字串 @ad>=19860301<=19931010

日期與前後所組成字串。前面以符號@為起始

每一單元間以 AND OR NOT ... 連接

專利分類系統

- 技術特徵分類
 - WIPO: IPC
 - 美國: UPC
 - 日本: FI
 - Derwent Class Code
- 第七版國際分類號 (2000公布)
- H: 電學
- H01: 基本電氣元件
- H01L: 半導體裝置; 其他類目未包括的電固體裝置
- H01L021/00: 適用於製造或處理半導體或固體裝置或部件之方法或設備

部	說明
A	人類生活需要 (Human Necessities)
B	作業、運輸 (Performing Operation, Transporting)
C	化學、冶金 (Chemistry, Metallurgy)
D	紡織和造紙 (Textiles & Paper)
E	固定構造 (Fixed Constructions)
F	機械工程、照明、加熱、武器、爆破 (Mechanical Engineering, Lighting, Heating, Weapons, Blasting)
G	物理 (Physics)
H	電學 (Electricity)

IPC & UPC Definition

- 英文IPC
 - http://www.wipo.int/classifications/fulltext/new_ipc/index.htm
- 英文UPC
 - <http://www.uspto.gov/web/patents/classification/>
- 繁體IPC
 - http://www.tipo.gov.tw/patent/international_classify/patent_classify/patent_classify.asp
- 簡體IPC
 - http://www.cnpat.com/IPC_7/INDEX.HTM

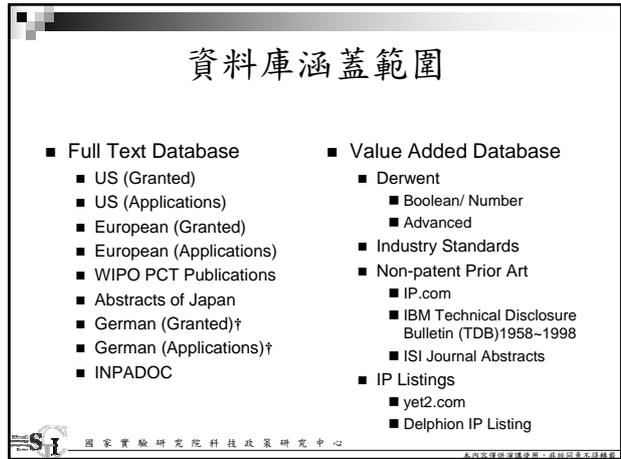
delphion介紹

首頁

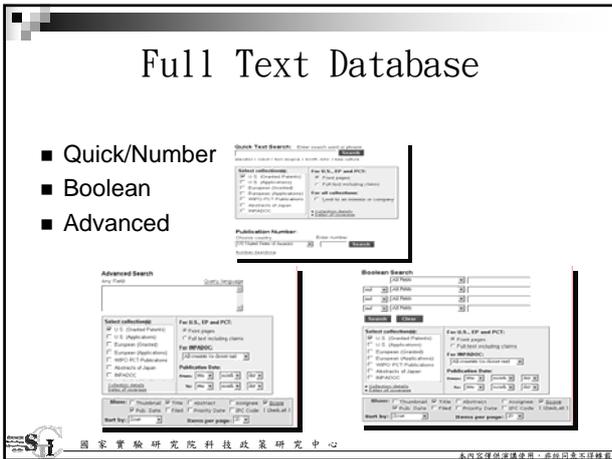
檢索畫面



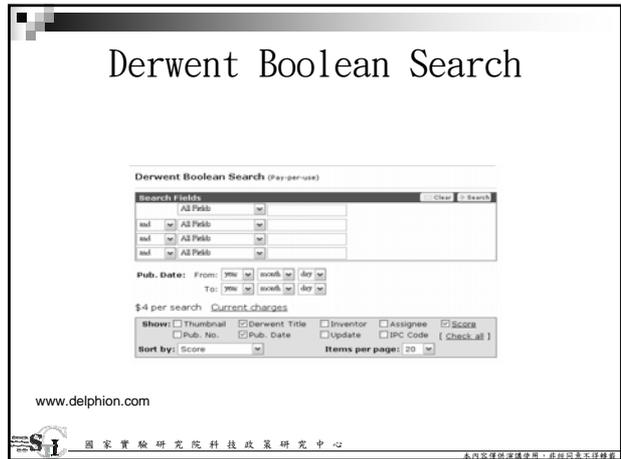
資料庫涵蓋範圍



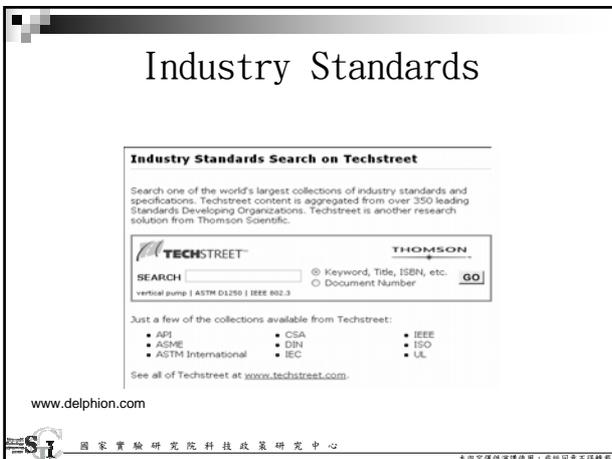
Full Text Database



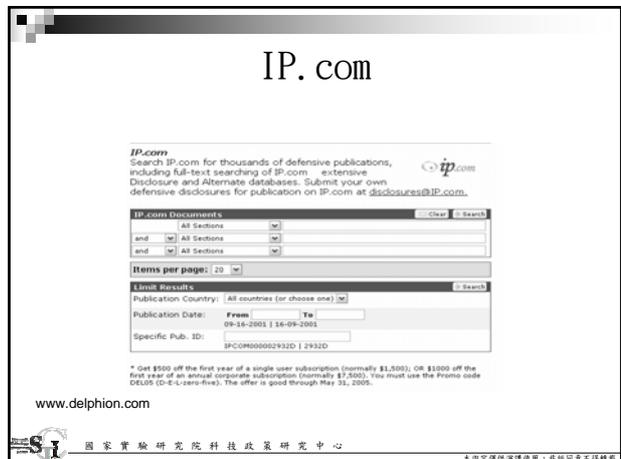
Derwent Boolean Search



Industry Standards



IP.com



Corporate Tree

Corporate Tree DELPHION

Company name or code:

Original Assignee displays normalized assignee names for use with US Granted and US Applications collections.

Hierarchy displays corporate structure for use with US Granted, EP Granted and EP Applications collections.

Original Assignee Hierarchy Cancel

Expand All Collapse All Save Click Save to copy selected terms and return to search form.

Original Assignee results for "ibm"

- CARBORUNDUM COMPANY (approx. 304)
- I.B.M. INDUSTRIA PLASTICS MONREGALESE S.P.A. (approx. 2)
- IBM CORPORATION (FISHKILL) (approx. 2)
- IBM CORPORATION, REGISTRATION FROM COVER SHEET. (approx. 2)
- IBM JAPAN BUSINESS LOGISTICS CO., LTD. (approx. 2)
- IBM JAPAN, LTD. (approx. 5)
- INTERNATIONAL BUSINESS MACHINES CORPORATION (approx. 5648)

www.delphion.com

Corporate Tree - Hierarchy

Corporate Tree DELPHION

Company name or code:

Original Assignee displays normalized assignee names for use with US Granted and US Applications collections.

Hierarchy displays corporate structure for use with US Granted, EP Granted and EP Applications collections.

Original Assignee Hierarchy Cancel

Expand All Collapse All Save Click Save to copy selected terms and return to search form.

Hierarchy results for "ibm"

- IBM (approx. 42242 US, 30125 EP)
- LEHMARK INTL, INC. (approx. 1435 US, 1021 EP)
- IBM INFORMATION PRODUCTS CORP. (approx. 461 US, 0 EP)
- LEHMARK CORP. (approx. 2 US, 0 EP)
- LEHMARK INTL, INC. (approx. 972 US, 1021 EP)

ipIQ Copyright © 2001-2002 by Delphion Inc.

www.delphion.com

重要欄位

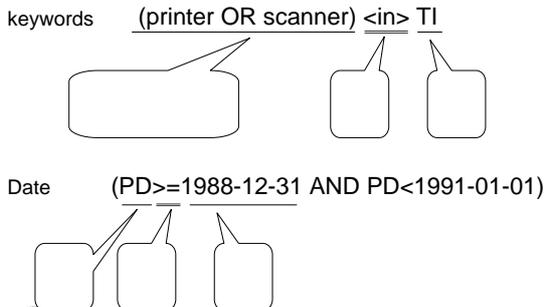
- Title: TI
- Abstract: AB
- Assignee: PA
- Inventor: IN
- First Claim/Claims: CLAIMS
- IPC Code: IC
- US Class Current : CNC
- US Class Original or current: NC
- Text: TEXT
- Priority Country: CP
- Filed Date: AD
- Published Date: PD
- Priority Date: DP
- Maintenance Status Code: STATUS
- Government Interest: GOVERNMENT
- US References: USREFS

<https://www.delphion.com/help/fields#ABBREVIATIONS>

檢索語法

- Boolean Operators
 - AND
 - (Hewlett-Packard <in> PA) AND (printer AND scanner) <in> TI
 - OR
 - (Hewlett-Packard <in> PA) AND (printer OR scanner) <in> TI
 - NOT
 - (Hewlett-Packard <in> PA) AND (printer NOT scanner) <in> TI
- Keyword Operators
 - <in>
 - monoclonal <in> title
 - monoclonal <in> TI
 - monoclonal <in> ti
- Date Operators
 - >= and <=
 - (Canon <in> PA) AND (image <in> TI) AND (PD>1988-12-31 AND PD<1991-01-01)
- Other Operators
 - <near> <near/1024>
 - (coffee <near> filter) <in> description
 - <order><near>
 - ((dog OR cat OR pet) <order><near> (cage OR carrier)) <in> description
 - Wildcard Symbol
 - ? : one character
 - * : multiple characters

Search Keyword Structure



Delphion Summary

- Title: TI
- Abstract: AB
- Assignee: PA
- Inventor: IN
- First Claim/Claims: CLAIMS
- IPC Code: IC
- US Class Current : CNC
- US Class Original or current: NC
- Text: TEXT
- Priority Country: CP
- Filed Date: AD
- Published Date: PD
- Priority Date: DP
- Maintenance Status Code: STATUS
- Government Interest: GOVERNMENT
- US References: USREFS
- Other Operators
 - NOT
 - <near>, <near/n>, <order><near>
 - <in>
 - AND
 - OR
 - >=<
 - ?, *

Exact Words vs. Stemming

Search syntax...	Stemming is...	Result set includes...
prime	on	■ prime, priming, primed, primates, primaries, and other words with the same stem
"prime"	off	■ prime
carbon	on	■ carbon, carbons, carbonate, carbonates, carbonated, and other words with the same stem
"carbon"	off	■ carbon

Searching for Phrases

Search syntax...	Phrase searching is...	Result set includes...
optical fiber	on	■ optical fiber ■ optical fibers ■ optic fiber
(optical AND fiber)	off	■ optical fiber ■ fiber optic ■ optical transmission fiber ■ optical glass fiber
relational database	on	■ relational database ■ relational databases ■ related databases
(relational AND database)	off	■ relational databases ■ method relating to databases ■ database relational extenders

Examples

- (Hewlett-Packard <in> PA) AND (printer NOT scanner) <in> TI
- (Canon <in> PA) AND (image <in> TI) AND (PD>1988-12-31 AND PD<1991-01-01)
- (coffee <near> filter) <in> description
- IPC Search Usage
 - h01l <in> IC
 - H01L29/06 <in> IC
 - H01L02906 <in> IC

Special Usage of "OR"

- (printer or scanner) <in> title
 - (printer, scanner) <in> title
- (printer <in> title) or (printer <in> abstract) or (printer <in> claims)
 - printer <in> (title, abstract, claims)
- (printer <in> title) and ((H01L29 <in> IC) or (H01L31 <in> IC))
 - (printer <in> title) and ((H01L29, H01L31) <in> IC)

How to search Taiwan's Patent

- ((taiwan <in> assignee) and (pd>=2001-01-01 and pd<=2001-12-31))
 - 4108
- ((taiwan <in> inventor) and (pd>=2001-01-01 and pd<=2001-12-31))
 - 6689
- ((taiwan <in> (assignee, inventor)) and (pd>=2001-01-01 and pd<=2001-12-31))
 - 6933

如果你忘了欄位代碼

The screenshot shows an 'Advanced Search' interface with several sections:

- Select collection(s):** Includes checkboxes for US (connected), US (Applications), European (Granted), WIPO PCT Publications, Abstracts of Japan, German (Granted?), German (Applications?), and INPADOC.
- For US, EP, German and PCT:** Includes checkboxes for Front pages and Full text including claims.
- For INPADOC:** Includes a checkbox for All records (for those only).
- Set range for:** Publication Date, with fields for Year, Month, and Day.
- Files:** Fields for Year, Month, and Day.
- For:** Fields for Year, Month, and Day.
- Collection details:** Includes fields for Invention, Assignee, Title, Abstract, and Claims.
- Search options:** Includes checkboxes for Show, Thumbnail, Title, Pub. Date, Filed, Priority Date, IPC Code, Abstract, Assignee, and Status.
- Sort by:** A dropdown menu.
- Items per page:** A dropdown menu.
- Search results:** A table with columns for Invention, Assignee, Title, Abstract, and Claims.

關鍵課題突破

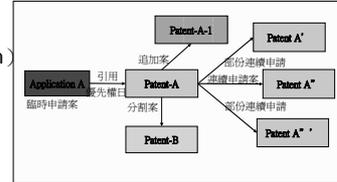
技術	功效	材料		性能				產品	
		碳奈米管	衍生(衍分子)	高表面積	高純度	電性	熱性	FED	元件
氣體反應法		US4683129B1; US5839180B2; US6103517B2; US7148627B2; US7332437B2; US7816354B1		534683	618103	617634	6271489	6207766	6329743
	化學氣相沉澱法	US7371643B2	US71154					5776214	
蒸餾		US7731963B2	US33984		556099	630304	637821		6278231
	液相反應	US4846521B1B2; US73762	US8975386A4; US74688		589873	6187823	6114618	6114618	5146233
電化學沉澱				6259864				6231786	6259864
	金屬沉澱	US12861	US4131913B1B1		589374			6196637	6334833
塗層		US4106447B1B1; US7878214B1B1; US8079611B1B1; US7133612B1B1; US7386962B1B1; US3381638B1	US13887						6338911
	碳奈米管								

碳奈米管專利地圖及分析

國家實驗研究院科技政策研究中心

專利權利範圍判斷

- 專利文獻中「專利權利範圍」(Claim)具有法律效力
 - 可用於確認產品製造、銷售、輸出、引進時判斷侵權的依據
- 法律情報在專利文獻的呈現：
 - 專利申請日期 (Application Date)
 - 專利申請範圍 (Claim)
 - 優先權 (Priority)
 - 特殊申請



專業級專利代理人的協助

國家實驗研究院科技政策研究中心

範例研究 - OLED

技術發展監控服務

- 客戶需求：我想知道某一類技術的發展趨勢與全球布局，其中技術定義可依據某一特定IPC、UPC或是關鍵字 (例如OLED、RFID、燃料電池)
- 服務內容：以電子郵件傳遞報告 (pdf檔與Excel表格)。內容包括：
 - (1)、提供該相關技術各國專利列表 (Excel表格)，包括專利號，申請日、公告日、專利名稱、申請人、IPC與UPC等。(列表以1,000件專利為上限，超過1,000件所需增加費用面洽)；
 - (2)、提供該技術在美國 (或某國) 所核准專利之統計圖表 (pdf檔)，包括申請日與核准日統計圖、專利權人、專利權人國家與主要發明人統計圖等四種。(若需要其他國家統計圖表，增加費用面洽)
- 收費方式：依單一技術分類計算，標準報告每個單位2,000元。
- 申請表格：請填寫相關資料並與我們服務窗口聯繫。

OLED專利監控

- Answers.com: <http://www.answers.com>
- 查詢結果：
 - oled為有機發光二極體的縮寫，全稱為 (Organic Light Emitting Device, Organic Light Emitting Diode)
 - 也可稱為 Organic Electroluminescent (OEL)
 - 成分包括a series of organic layers between two electrical contacts (electrodes).
 - OLED包括兩種，分別為small-molecular weight organic materials (SM-OLEDs) 與polymer-based materials (PLEDs, LEPs)。
- 關鍵字彙整
 - Oled or Organic Light Emitting Device or Organic Light Emitting Diode or Organic Electrolumin* or OEL

OLED專利監控 (續)

- 檢索字串：
 - ((Oled or Organic Light Emitting Device or Organic Light Emitting Diode or Organic Electrolumin* or OEL) <in> (ti, ab, claims))
- 檢索結果

資料庫	專利件數
US (Granted)	1,813
US (Applications)	3,045
European (Granted)	7,801
European (Applications)	4,931
WIPO PCT	2,735

OLED專利監控 (續) -Snapshot

Select	Assignee	Items	%	Bar Chart
<input type="checkbox"/>	EASTMAN KODAK COMPANY	201	10.6%	■
<input type="checkbox"/>	THE TRUSTEES OF PRINCETON UNIVERSITY	74	3.9%	■
<input type="checkbox"/>	IDEMITSU KOSAN CO., LTD.	69	3.6%	■
<input type="checkbox"/>	TDK CORPORATION	68	3.5%	■
<input type="checkbox"/>	MOTOROLA, INC.	65	3.4%	■
<input type="checkbox"/>	NEC CORPORATION	59	3.1%	■
<input type="checkbox"/>	SANYO ELECTRIC CO., LTD.	56	2.9%	■
<input type="checkbox"/>	SONY CORPORATION	47	2.4%	■
<input type="checkbox"/>	SEIKO EPSON CORPORATION	39	2.0%	■
<input type="checkbox"/>	SAMSUNG SDI CO., LTD.	37	1.9%	■

10 rows shown

OLED專利監控 (續) -Snapshot

Select	Inventor	Items	%	Bar Chart
<input type="checkbox"/>	FORREST, STEPHEN R.	65	1.2%	■
<input type="checkbox"/>	HOSOKAWA, CHISHEO	49	0.9%	■
<input type="checkbox"/>	TANG, CHING W.	43	0.8%	■
<input type="checkbox"/>	ARAI, MICHIO	39	0.7%	■
<input type="checkbox"/>	THOMPSON, MARK E.	38	0.7%	■
<input type="checkbox"/>	SO, FRANKY	36	0.7%	■
<input type="checkbox"/>	COO, RONALD S.	33	0.6%	■
<input type="checkbox"/>	POPOVIC, ZORAN D.	28	0.5%	■
<input type="checkbox"/>	SHI, SONG Q.	28	0.5%	■
<input type="checkbox"/>	BURROWS, PALL	26	0.5%	■

10 rows shown

(below cutoff) 4,779 92.5%

OLED專利監控 (續) -Snapshot

Select	IPC Code - 4 digit	Items	%	Bar Chart
<input type="checkbox"/>	H05B Electricity; Electric Techniques Not Otherwise Provided For; Electric Heating; Electric Lighting NO	616	26.6%	■
<input type="checkbox"/>	H01J Electricity; Basic Electric Elements; Electric Discharge Tubes or Discharge Lamps (spar	329	14.2%	■
<input type="checkbox"/>	H01L Electricity; Basic Electric Elements; Semiconductor Devices; Electric Solid State Devices Not Other	313	13.5%	■
<input type="checkbox"/>	G09G Physics; Instruments; Educating; Cryptography; Display; Advertising; Seals; Arrangements or Circuit	229	9.9%	■
<input type="checkbox"/>	B32B Performing Operations; Transporting; Shipping; Layered Products; Layered Products, i.e. Products Bui	101	4.3%	■
<input type="checkbox"/>	C09K Chemistry; Metallurgy; Chemistry; Dyes; Pigments; Polishes; Natural Resins; Adhesives; Miscellaneous	93	4.0%	■
<input type="checkbox"/>	B05D Performing Operations; Transporting; Separating; Mixing; Spraying or Atomizing in General; Applying	60	2.6%	■
<input type="checkbox"/>	G02F Physics; Instruments; Optics (making optical elements or apparatus 824b,	57	2.4%	■
<input type="checkbox"/>	C07D Chemistry; Metallurgy; Chemistry; Organic Chemistry (such compounds as the oxides, sulf	49	2.1%	■
<input type="checkbox"/>	G02B Physics; Instruments; Optics (making optical elements or apparatus 824b,	34	1.4%	■

10 rows shown

(below cutoff) 431 18.6%

OLED專利監控 (續) -Snapshot

Select	Publication Year	Items	%	Bar Chart
<input type="checkbox"/>	2005	291	16.2%	■
<input type="checkbox"/>	2004	438	24.2%	■
<input type="checkbox"/>	2003	307	16.9%	■
<input type="checkbox"/>	2002	200	11.0%	■
<input type="checkbox"/>	2001	162	8.9%	■
<input type="checkbox"/>	2000	113	6.2%	■
<input type="checkbox"/>	1999	107	5.9%	■
<input type="checkbox"/>	1998	79	4.3%	■
<input type="checkbox"/>	1997	32	1.7%	■
<input type="checkbox"/>	1996	23	1.2%	■

10 rows shown

(below cutoff) 58 3.20%

Other Snapshot

Default (set of 4)

- Assignee
- Assignee City
- Assignee State
- Assignee Country
- Designated Country
- Application Year

Application Year/Month

- Attorney
- Inventor
- Inventor City
- Inventor State
- Inventor Country
- IPC Code - 4 digit

Ultimate Company

- Derwent Assignee Code
- Derwent Inventor
- Derwent Class - main
- Derwent Class - all
- Derwent Manual Code
- Derwent Update

US Class - full

- US Examiner
- US Maint. Status
- US References - all
- US Forward Refs - all
- Unified Company
- Parent Company

IPC Code - full

- Publication Year
- Publication Year/Month
- Priority Year
- Priority Year/Month
- US Assignee Code
- US Class - 3 digit all

下次課程



- (1)專利全文服務(30mins)
- (2)專利檢索與分析標準服務(60mins)
 - 產業鏈與企業專利布局/技術結構與技術布局
- (3)專利檢索與分析進階服務(30mins)
 - 進階專利解析/專利侵權解析

