

Căutarea, vizualizarea și analiza brevetelor

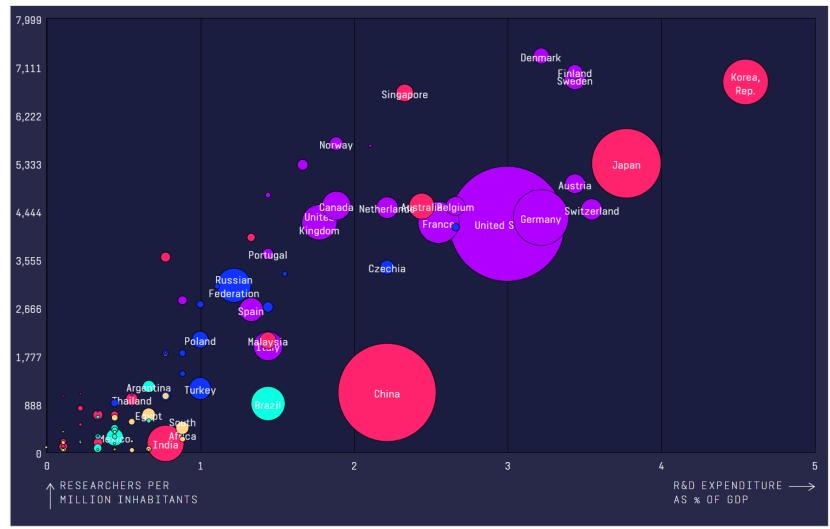
Adriana FILIP - Solutions Consultant adriana.filip@clarivate.com

Februarie 2022

R&D spending

Global spending on R&D has reached a record high of almost US\$ 1.7 trillion.

- About 10 countries account for 80% of spending.
- As part of the Sustainable Development Goals (SDGs), countries have pledged to substantially increase public and private R&D spending as well as the number of researchers by 2030.







Patents

"A patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem. To get a patent, technical information about the invention must be disclosed to the public in a patent application."

Source: WIPO

What kind of protection does a patent offer?

In principle, the patent owner has the exclusive right to prevent or stop others from commercially exploiting the patented invention. In other words, patent protection means that the invention cannot be commercially made, used, distributed, imported or sold by others without the patent owner's consent.

Is a patent valid in every country?

Patents are territorial rights. In general, the exclusive rights are only applicable in the country or region in which a patent has been filed and granted, in accordance with the law of that country or region.

How long does a patent last?

The protection is granted for a limited period, generally 20 years from the filing date of the application.



Patents

What can be patented?

Differs across legal jurisdictions. In general:

- Products/devices, processes, compositions of matter (i.e. chemical compounds)
- Manufacture and uses of the above

What cannot be patented?

- Discoveries, physical phenomena, laws of nature, scientific theories, mathematical methods
- Aesthetic Creations
- Presentations of information
- Abstract ideas, philosophies
- Inventions that are offensive to public morality



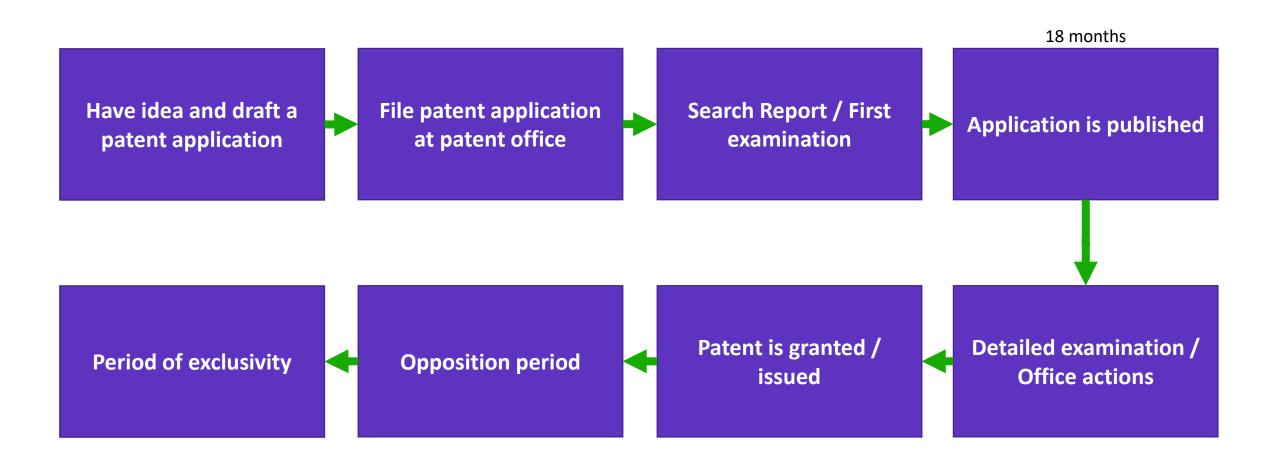
Criteria for grant of patent

In general:

- ✓ The invention must be novel
- ✓ The invention must be useful/have technical character
- ✓ The invention must non-obvious/have inventive step
- ✓ The invention must be legally allowable.

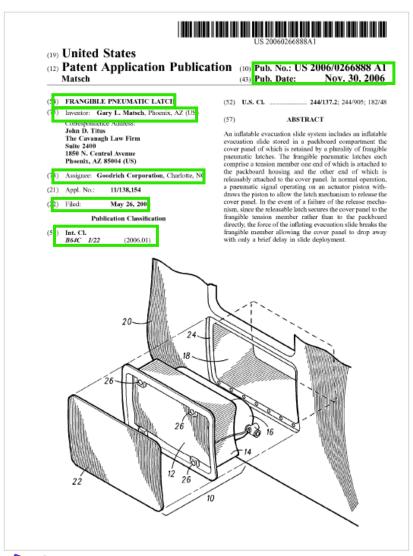


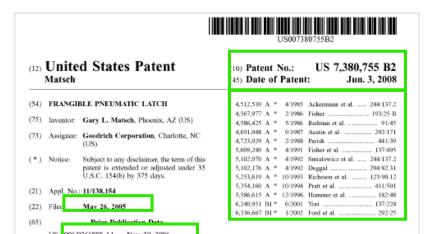
Patent prosecution process





What does a patent look like?





244/137.2; 244/905; 292/252

244/137.2, 905, 118.3; 292/137, 138, 144, 292/150, 252; 182/48; 280/728.3

See application file for complete search history.

References Cited

U.S. PATENT DOCUMENTS

..... 244/137.1.

244/137.2

193/25 E

244(137.)

244(137)

244/129.5

244(137.)

(51) Int. Cl. B64D 25/14

(52) U.S. CL

(58) Field of Classification Search .

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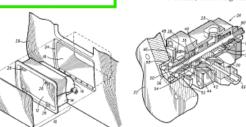
(Continued)

Primary Examiner—Michael R. Mansen
Assistant Examiner—Joseph W Sanderson
(74) Attorney, Agent, or Firm—Jerry J. Holden; John D.
Titus

57) ABSTRACT

An inflatable evacuation slide system includes an inflatable evacuation slide stored in a packboard compartment the cover panel of which is retained by a plurality of frangible pneumatic latches. The frangible pneumatic latches each comprise a tension member one end of which is attached to the packboard housing and the other end of which is releasably attached to the cover panel. In normal operation, a pneumatic signal operating on an actuator piston withdraws the piston to allow the latch mechanism to release the cover panel. In the event of a failure of the release mechanism, since the releasable latch secures the cover panel to the frangible tension member rather than to the packboard directly, the force of the inflating evacuation slide breaks the frangible member allowing the cover panel to drop away with only a beird delay in slide deployment.

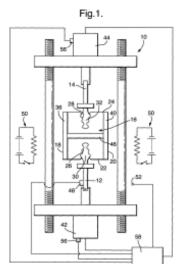
6 Claims, 4 Drawing Sheets

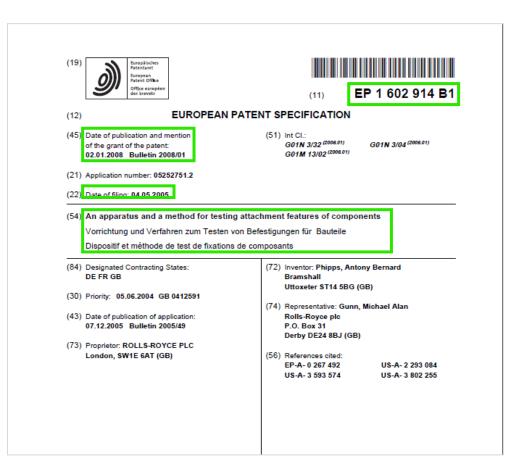


What does a patent look like?



An apparatus (10) for testing attachment features (26,28,30,32) of components (12,14) comprises a first member (16) having a first end (18), a second end (20), a first edge (22) and a second edge (24). The first edge (22) has a first firtree slot (26) to receive a first component (12) and the second edge (24) has a second firtree slot (28) to receive a second component (14). The first component (12) has a firtree attachment feature (30) to fit the first slot (26) and the second component (14) has a firtree attachment feature (32) to fit the second slot (28). The first end (18) of the first member (16) has flanges (34,36) extending laterally and the second end (20) of the first member (16) has flanges (38,40) extending laterally such that the first member (16) is substantially H-shaped in cross-section. First load means (42) apply a load on the first component (12) and second load means (44) apply a load on the second component (14) substantially in the opposite direction to the load on the first component (12). The apparatus may be used to test firtree attachments for turbine blades and discs.

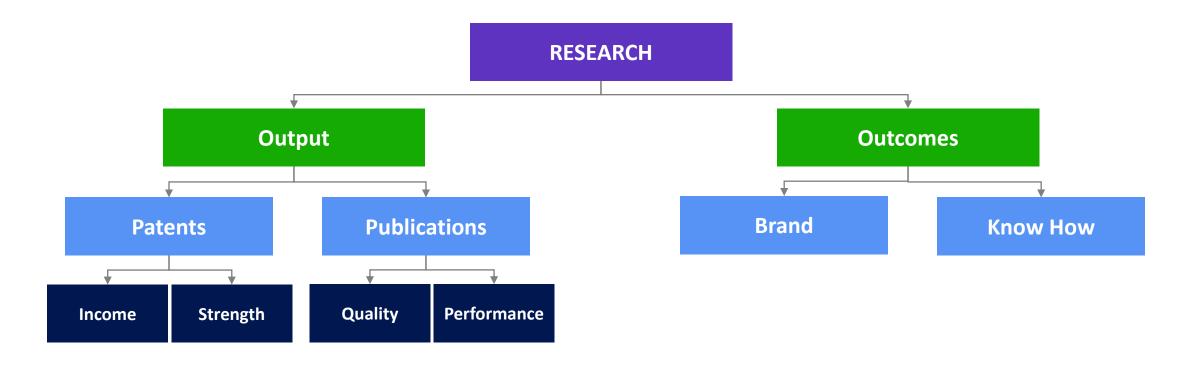




Research visibility and translation



Research performance evaluation



The performance evaluation should take into consideration both outputs and outcomes

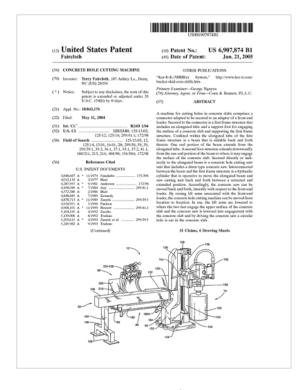
- A high-quality research is not necessarily a highly cited research
- There are articles that are published in the highest Impact Factor journals, but they are not cited



Publication or Patent



Purpose Share knowledge



Intention

Establish expertise in the field

Intention

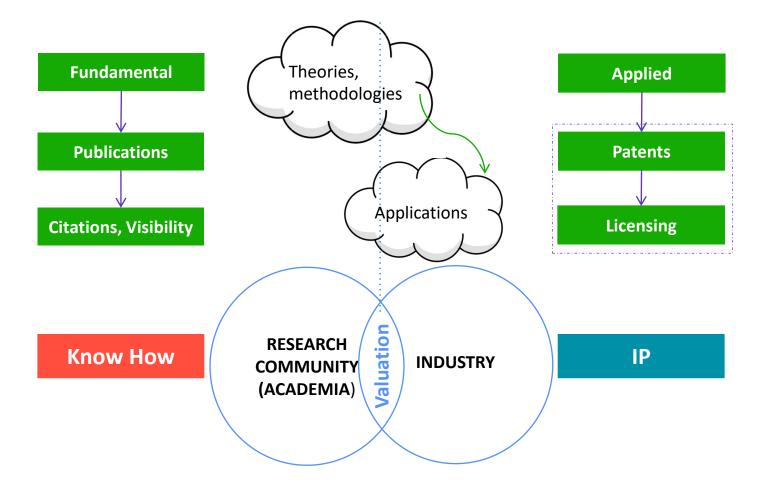
Bring a product or service to a market



Applied vs Basic Research

Pathway from Research to IP, Strategy

In an ideal structure, basic research should yield more publications while applied research should drive more intellectual property.

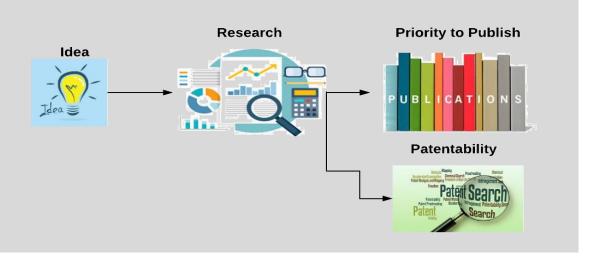




An innovative approach

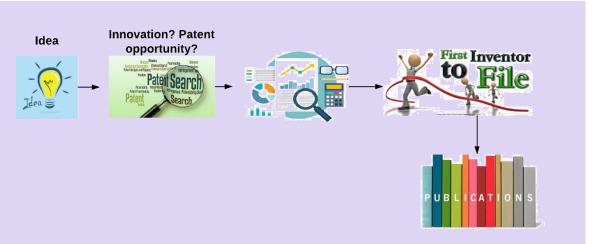
Classical Approach

Scientific Literature



Novel Approach

Scientific Literature + Patent Information





Why Patent data is important?

- ✓ Avoid duplication of R&D efforts and spending
- ✓ Solutions to technical problems
- ✓ Gather business intelligence









It is important to recall that, in the context of the European Community R&D Framework Programs, participants need to demonstrate the innovative character of the project they propose. A proper analysis of the state of the art is one of the criteria project proposals are evaluated upon, and therefore technology-based proposals should preferably include patent searches [*].

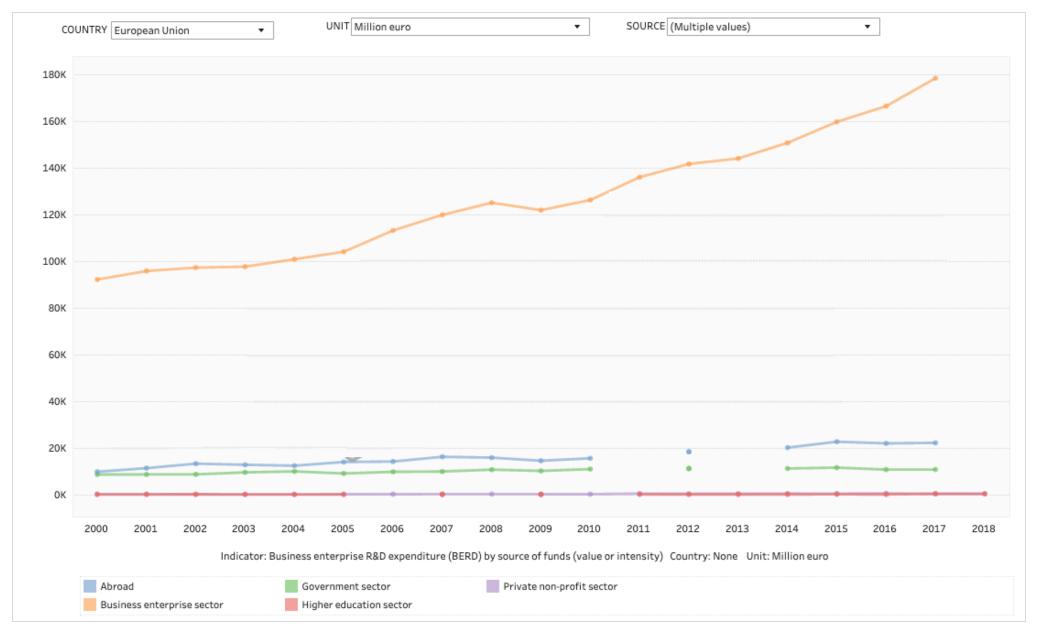
Up to 80% of current technical knowledge can only be found in patent document [*].

Moreover, this information is rapidly available, as most patent applications are published 18 months after the first filing, irrespective of their country of origin.



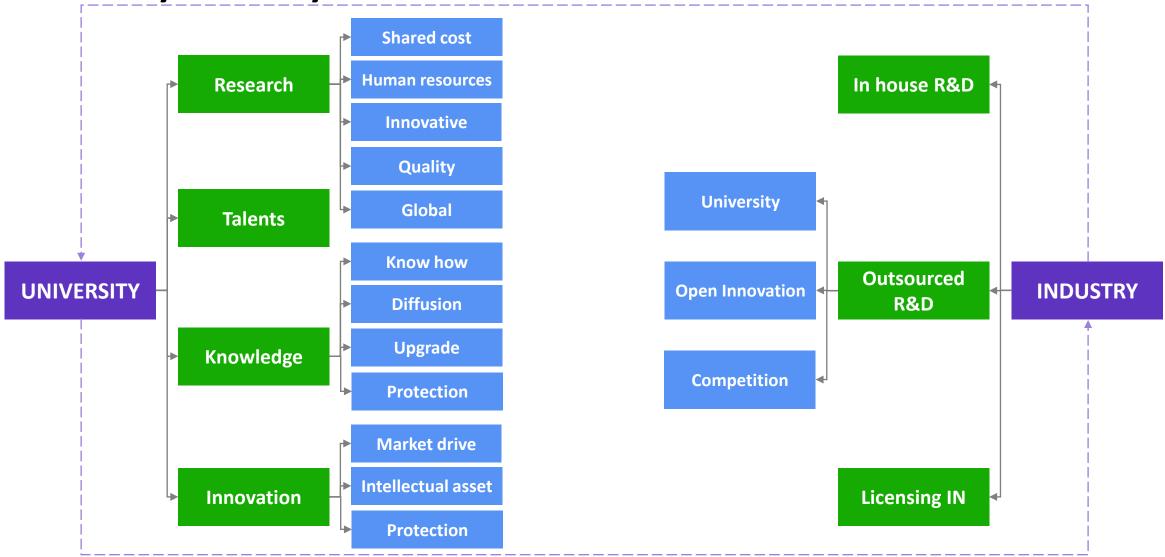
Who is spending on R&D?

Most of the spending on R&D is ensured by the business enterprise sector.





University-Industry relations





Completing the research picture with Derwent Innovations Index



Web of Science platform content



34,000+

Journals across the platform

21,000+

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2 billion+

Cited references

184 million+

Records

17 million +

Records with funding data

101 million

Patents for over 50 million inventions

13 million+

Data Sets and Data Studies

Backfiles to 1900

17

With cover-to-cover indexing

227,000+

Conference proceedings

128,000+

Books



Statistics as of October 2021

Derwent Innovations Index on Web of Science

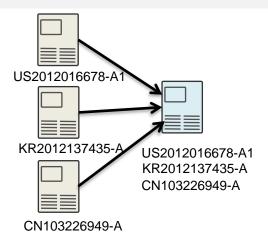
Derwent Innovations Index (DII) facilitates rapid, precise patent searching, letting you conduct patent and citation searches of inventions in chemical, electrical, electronic, and mechanical engineering.

DII merges the value-added patent information from **Derwent World Patents Index** with the patent citation information from **Derwent Patent Citation Index***.

You can use additional descriptive information and coding to discover all relevant inventions and quickly grasp a patent's significance and its relationship to other patents.

Reduce duplication of R&D; track competitors' activities; detect and avoid patent infringement; identify potential gaps in the marketplace and possible licensing opportunities.

- ✓ Over 101M individual patent documents
- √ 59 patent issuing authorities covered
- ✓ 7M patents added in the last year
- ✓ Coverage 1963 to present





^{*} includes Derwent Chemistry Resource (separate subscription required), a unique database containing chemical structures that you can search by entering chemical search terms or chemical structures. The Derwent Chemistry Resource allows you to browse through the chemical structure database to develop new ideas on compound structure advances and to learn about new compounds that have hit the market.

Derwent Innovations Index on Web of Science

Comprehensive Coverage

Derwent Innovations Index covers over 14.3 million basic inventions from almost 60 worldwide patent-issuing authorities and creates a unique patent family for every invention to speed discovery.

All Derwent titles and abstracts are written in plain English, to aid searching across patents issued in other languages, and to make it easy to understand an inventions novelty and claims.

Integrated access to other Web of Science tools

Accessing Derwent
Innovations Index on Web of
Science means you can
simultaneously search all
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resources your institution
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advantage of their powerful
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Insightful Analysis Options

Find trends and patterns, gain insight into emerging fields of research, and identify leading researchers, institutions, and journals with the Analyze Tool.

Backfile Data to 1963

Track over 55 years of vital data to discover all relevant prior art. More backfiles give you the power to conduct deeper, more comprehensive searches and track trends through time.



Patent data in the Derwent Innovations Index



A Typical Patent | Patents are filed in multiple offices around the world, each having its own formats and standards.

They are usually written in a way that makes them difficult to understand. This can make the task of tracing patents an onerous one.



Production of permanent magnet using 3D printer, has magnetizing process that is applied to chemical compound obtained by combining polymer material with Fet ish compound by utilizing 3D printer and carries out heat treatment processes

Patent Number: WO2021112799-A2

Inventors: AKDOGAN O; AKDOGAN N G; ZIRHLI O

Patent Assignees:

UNIV BAHCESEHIR(UYBA-Non-standard) UNIV PIRI REIS(UYPI-Non-standard)

Derwent Primary Accession Number: 2021-62962Y

Abstract:

USE - Product

ADVANTAGE the available

NOVELTY - The Derwent Class Code(s): L03 (Electro-(in) organic - chemical features of conductors, resistors, magnets, capacitors and switches, electric discharge lamps, semiconductor and other materials, batteries, accumulators and thermoelectric devices, including fuel cells, magnetic recording media, radiation emission devices, liquid crystals and basic electric elements. Growing of single crystals of semiconductors and their doping are included, but semiconductor devices, where the manufacture is not claimed are excluded. Electrography, electrophotography, magnetography, electrolysis, electrophoresis, power plant, X-ray and plasma-techniques, ion exchange resins, polyelectrolytes, electroplating, metal electrodeposition, 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).); M13 (Coating material with metals, diffusion processes, enamelling and vitreous coatings - including coating from liquid metal or solution, spraying, cementation, cathodic sputtering, enamelling and oilfree lubricant coatings, but not coatings for the production of semiconductors (C23C, D).); A85 (Electrical applications.); V02 (Inductors and Transformers)

Derwent Manual Code(s): L03-B02J ENGINEERING, AUTOMOTIVE APPLICATIONS; M13-D01A CEMENTATION BY DIFFUSION PROCESS USING SOLIDS -CARBURISING/NITRIDING: M13-D02A CEMENTATION BY DIFFUSION PROCESS USING LIQUIDS - CARBURISING/NITRIDING: M13-D03A CEMENTATION BY DIFFUSION PROCESS USING GASES - CARBURISING/NITRIDING; A12-E08 MAGNETIC COMPOSITIONS/DEVICES; A12-E08B MOTORS, COILS, TRANSFORMERS, GENERATORS; A12-E10 HEAT AND TEMPERATURE USES; A12-W14 NANOTECHNOLOGY; V02-A MAGNETIC MATERIALS; V02-E01 PERMANENT MAGNETS: V02-H04 MAGNET MANUFACTURE: X25-A08B 3D PRINTING / ADDITIVE MANUFACTURING APPARATUS

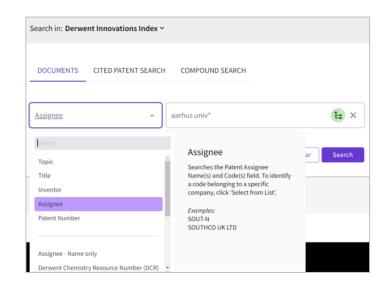
The DII Equivalent | Our editorial team use the original patent to create a record in DII, including:

- a more descriptive English Title; a plain English Abstract, with Novelty, Use, Advantage and if required, a Description of Drawings;
- all of the patent numbers that make up the family; links to original patent documents: unified Assignee codes where available
- International Patent Codes and our own Derwent Codes; full Patent **Application details**

Searching the Derwent Innovation Index

Derwent Innovations Index is a research tool that **provides web access to inventions detailed patent documents**. It includes links to cited and citing patents, cited articles, and full-text patent data sources.

DII opens the power of patent searching to all levels of an organization, allowing you to browse patent records by entering simple search queries.



New macrocyclic compounds compri moiety used to treat cancer e.g. leuke tissue cancer, bone cancer, ocular car neck cancer

Chemical Information

Patent Number: WO2021110968-A1

Inventors: POULSENTE; HJERRILDE; JACOBSE

Patent Assignee:

UNIV AARHUS(UYUA-C)

Derwent Primary Accession Number: 2021-6311

Indexed: 2021-08-04

Abstract:

NOVELTY - Macrocyclic compounds comprising 4-

There are two Assignee search options: "Assignee" and "Assignee - Name Only"

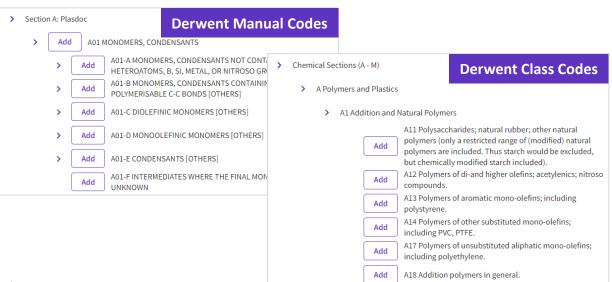
Derwent assigns a unique 4-letter code to approximately 21,000 companies (those with most patents), these codes retrieve subsidiaries and related holdings of the company. Other companies and individual patent assignees are given a non-standard 4-letter code, which is not unique. Patent codes appear as: ABCD-C (Standard Company), ABCD-N Nonstandard, ABCD-R Soviet Institute, ABCD-I Individual.



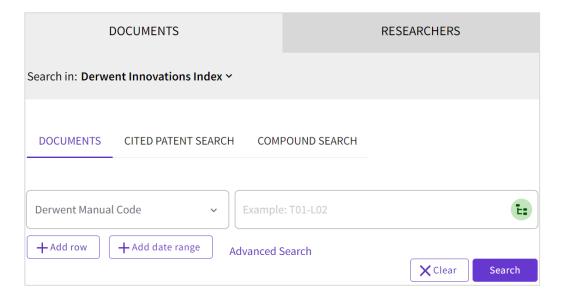
Specialist indexing

Derwent Innovations Index has several specialist indexes available for searching.

- Derwent Class Codes: allows user to quickly retrieve a category of inventions
- Derwent Manual Codes: indicates the novel technical aspects of the invention
- Patent Assignee Codes: enable all of a company's patents to be found even though they may have filed them under different name variations (>20k companies).



Derwent Manual Codes are assigned to patents by Derwent's indexers. They are used to indicate the novel technical aspects of an invention, and also its applications. Using manual codes to create a detailed search strategy can significantly improve the speed and accuracy of searching.

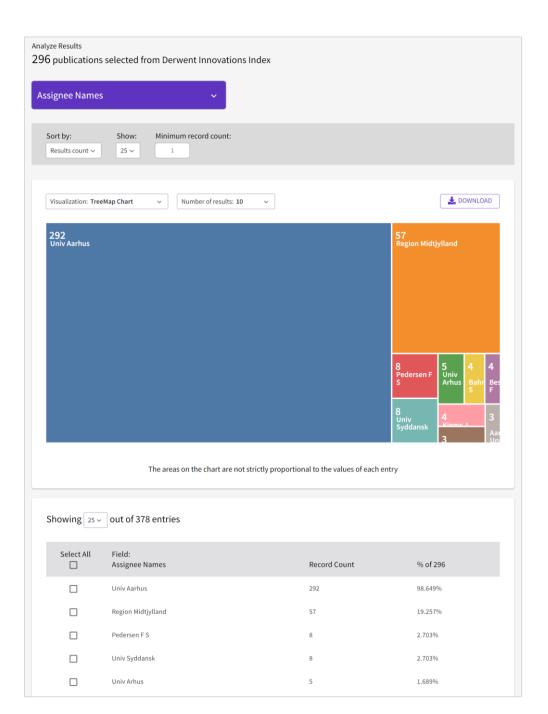




Analyse Results

Analyse Results to group and rank records in a results set by extracting data values from a variety of fields.

Use this function to find the most prevalent Inventors in a particular field of study or generate a list of Assignees ranked by record count based on your search query.





Citations

New therapeutic composition comprises an RNA complex comprising a core double-stranded region, useful for treating cancer, atherosclerosis, hypercholesterolemia, hyperlipidemia, or an inflammatory disease



Inventors: WENGEL J; KJEMS J

Patent Assignees:

UNIV SYDDANSK(UYSY-Non-standard)

UNIV AARHUS(UYUA-C)

SANTARIS PHARMA AS(SANT-Non-standard)

Citation Network
In Derwent Innovations Index

124
Citing Patents

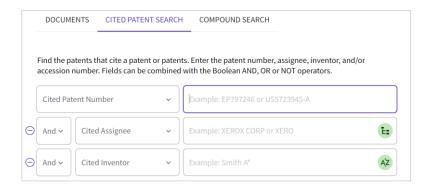
Articles Cited by Examiner
Examiner

50

63

DII records any citation information associated with a patent family. This includes:

- ✓ any other patents that cited it
- ✓ patents cited by the Inventor and the Examiner
- ✓ articles cited by Inventor and the Examiner
- ✓ Where these items are in the Web of Science, links are provided to the records.



Cited Patent Search



All Database Search | Wider Discovery and Citation Tracking



Studies and experiments get underway after a research team receives grant funding for a project.



Early findings are presented by the team at **conferences**, where they collect feedback from their colleagues.



The team works to publish journal articles that will share their findings more widely.

Meanwhile, the team conducts more studies.



The team publishes a book, which provides more information and detail on the research topic than the articles published along the way.



The team files patent applications to protect new discoveries.



Research datasets
generated in the lab
or fieldwork are
deposited in data
repositories so others
can reuse them.





New findings mean new journal articles.



Why use the Derwent Innovations Index?



Determine the State of the Art

- Review the Novelty of an invention / Last technological advances?
- Gaps in the marketplace?
- Avoid or watch for Patent infringements



Find patents without specialist knowledge

- English abstract from patent documents issued in more than 30 languages
- Original patent titles/abstracts are re-written by subject specialists
- Applications for the same invention are grouped into families



Identify competitors or collaborators





Clarivate | IP solutions and services

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IP services

Patent & Trademark Maintenance Filing & Prosecution Support Patent Translations Services Domain Optimization



Derwent solutions

We help government agencies and universities evaluate the patent landscape, identify future trends and issue and enforce IP rights around the world.

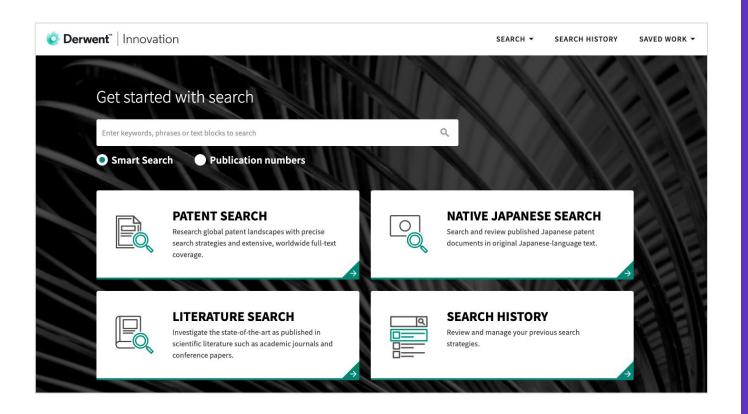
Our solutions support their critical role in fostering innovation – from patent applications to policy-making and investing in scientific and technological research.



Find out faster – with confidence and insight:

- ✓ Assess the commercial potential of inventions
- ✓ Examine patents and prosecution
- ✓ Horizon scanning to detect early signals
- ✓ Inform science and technology policy
- ✓ Undertake early stage scientific research
- ✓ Evaluate research funding applications and demonstrating impact

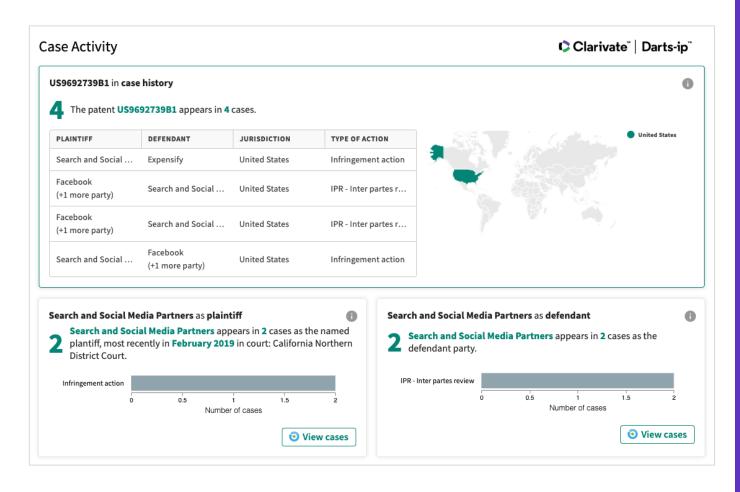




POWERFUL SEARCH ENGINES

- Build focused search queries using 300+ standard fields and Boolean commands to locate the most relevant publications
- Capture highly relevant results using an invention description or free text input with Al-powered SmartSearch
- Focus on a specific technology category using DWPI 26,000+ codes that categorize patents based on novelty and application

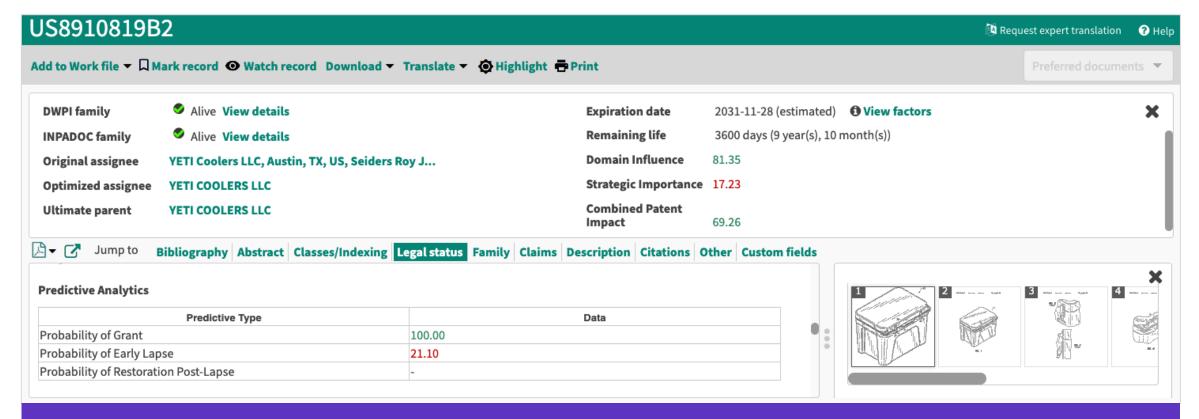




CAPTURE DEEPER INSIGHTS WITH CORRELATED PATENT DATA & PROPRIETARY CONTENT

- Global Patent Data: search cleansed, corrected, and normalized full-text patent data from 75 jurisdictions
- <u>Derwent World Patents Index</u>: find more relevant patents and review results in less time using editorially-enhanced global patent data
- Darts-ip Global Patent Litigation Case
 Data: Identify if a patent is involved in litigation and see case details from 140 jurisdictions.

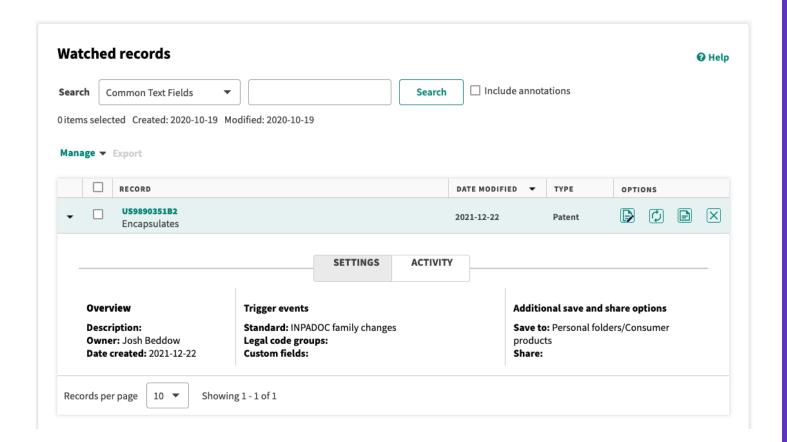




EVALUATE POTENTIAL RISK AND IMPACT WITH PREDICTIVE METRICS

- Compare patents using predictive metrics
- Accurately evaluate a patent's remaining life and probability of early lapse (or grant)
- Evaluate how influential a patent will be in its technology domain with citation prediction





STAY UP TO DATE ON THE LATEST PUBLICATIONS AND CHANGES IN STATUS

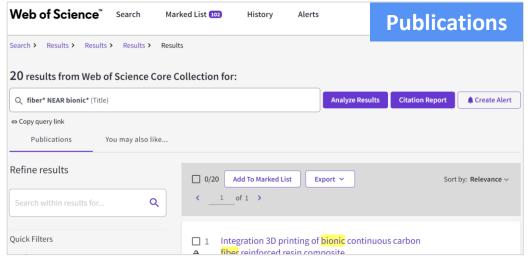
- Automatically monitor patents for changes in legal status, reassignment, new citations, and more
- Customize monitoring to match your needs: by event type, document type (patent or literature), geographic region, and notification frequency
- Monitor emerging technologies and maintain search projects with alert notifications when new records matching your criteria are available

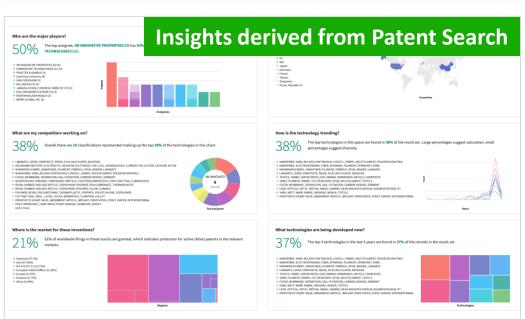


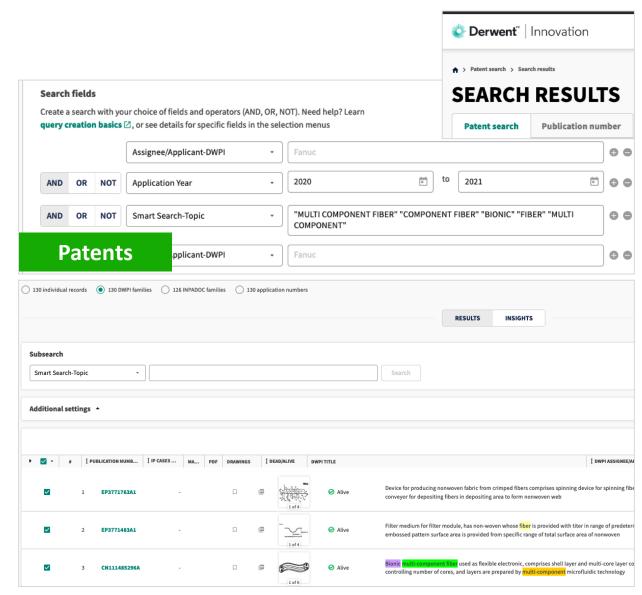
Example



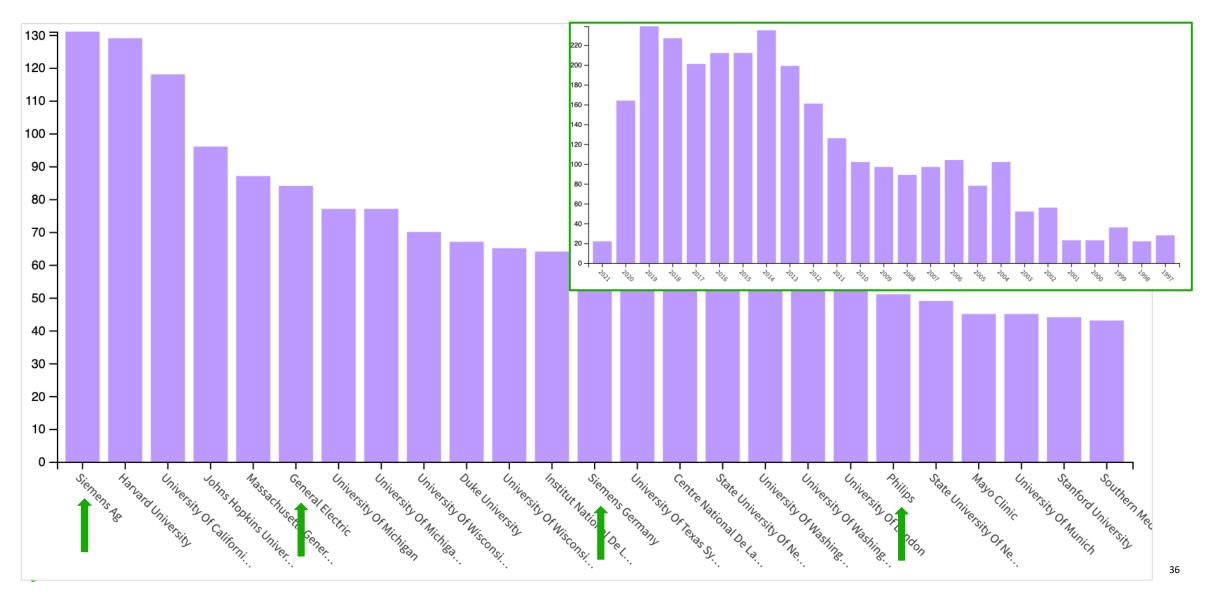
Searching "A Bionic Multi-component Fiber"



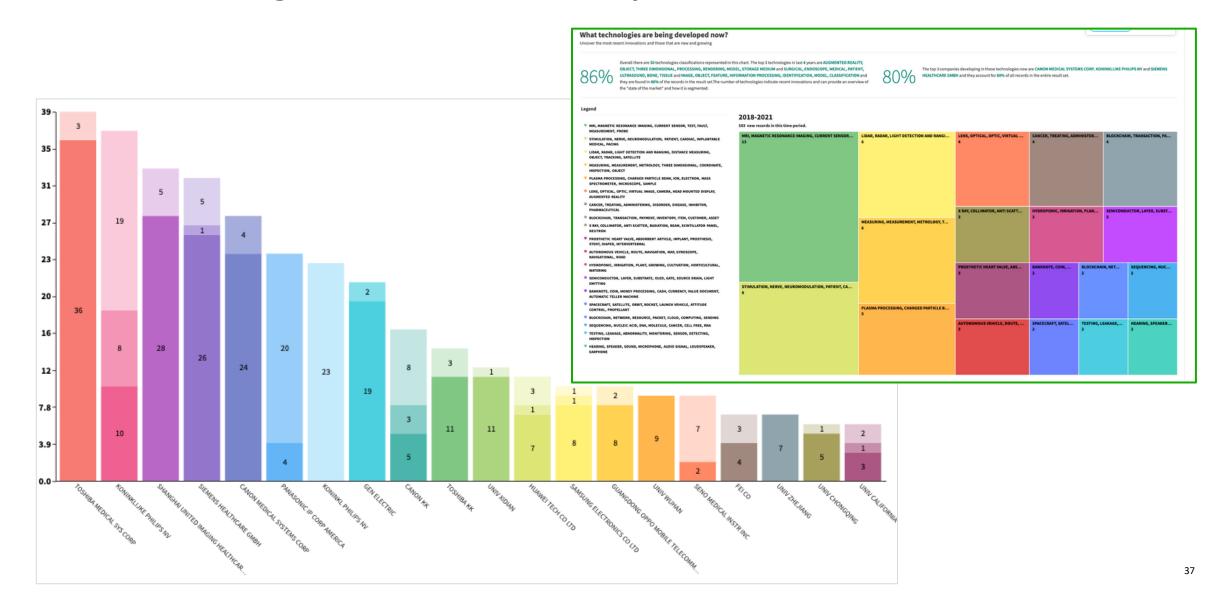




Statistical Image reconstruction-CT | Publications



Statistical Image reconstruction-CT | Patents





Vă mulțumesc

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www.clarivate.com

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