Patent Searching Using Free Search Tools

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Introduction

Purpose of this document….

This article is a tutorial on several free patent search tools to help anyone who needs to locate patent information.

This document will act as a rapid introduction to each tool emphasizing its key features and where those features can be found. Since individual needs vary, it is our hope that you will be able to rapidly choose a tool with the functions that fit your needs.

The best patent searches are iterative using different search tools since each tool works slightly differently. The same search was performed in each tool using the same key words and you will notice that the number of results is quite different. This is most commonly due to the countries covered and the way family members are grouped.

Ideally, you would want to perform a search using at least two search tools. Each tool has different strengths, therefore, by searching with different tools you can take advantage of their unique search features, such as WIPO's translation query builder, or Google's synonyms.

Featured tools:

Many existing open source databases have been integrated into freely available search tools. We have chosen to present four tools based on their ease of use, reliability of results and useful key features.

- Espacenet
- Google Patents
- PATENTSCOPE
- The Lens

Presentation of each tool:

The section for each tool will include the following topics and the same search will be used for demonstration.

1. Overview and Coverage
2. Searching Capabilities / Key Features
3. Results Manipulation Capabilities
4. Privacy and Security
5. Additional Information - Help

Best Practices For Protecting Your Patent Search Information

When using free search tools on the Internet, consider the following tips:

1. Only search on encrypted (HTTPS) sites (protects against eavesdroppers on WiFi networks)
2. Delete your browser history after you have finished, or search in an "incognito window" (prevents information access in the event of computer theft)
3. Store your search notes on your computer's encrypted hard drive, or in the Cloud (prevents information access in the event of computer theft)

Table of Contents

Primer on Information Security:

Protecting confidentiality is a common source of misinformation regarding free search tools. Users should be aware that no tool (paid or free) is without risk. However, by following a few tips and understanding the "threat model", you can confidently search for patents while taking reasonable, best-practice security steps to protect the confidentiality of the invention.

Security and privacy are both important to protecting confidentiality.

There are multiple areas to secure while searching. First, consider local security (software updates, hard drive encryption, physical security) and the security of the provider (company reputation, security engineers).

Second, you need to know the ways in which your search strings can be seen as you type them and what are the associated "*threats*".

- Your keyboard (*hardware keyloggers*)
- Your browser (*extensions that can access your pages*)
- Your computer (*software keyloggers*, *viruses*)
- The internet (*eavesdroppers* on *non-HTTPS sites*)
- The search tool (*weaknesses of security systems*)

Last, you need to know what can save your search strings.

- Your browser history
- The search tool

Privacy covers the last piece: what does the search tool do with my search strings? Each company has a privacy policy that details how your search strings are processed, who has access to them and under what circumstances, for how long they are stored, and what identifying information they are stored with.

Today's patent search tools are a powerful means of obtaining key information when used with a knowledge of security, privacy, and best practices for protecting your search information.

https://worldwide.espacenet.com/

Overview and Coverage

Espacenet is a patent database that allows you to do full-text searches in English, French, or German. You can select the database in your preferred language and in addition to viewing your results online, you can export them to a CSV/XLS formatted file.

The worldwide database allows you to search for published patent applications from over 95 patent-granting authorities. Like all search tools, the EPO relies on the patent-granting authorities for its data, it cannot be guaranteed that the data in Espacenet is completely up-to-date. For example when seeking information on patent status, the user should go to the national register to obtain the most up-to-date information.

Espacenet includes data on more than 95 million patent documents world-wide.

Latest updates to the database

You will find up-to-date information on the EPO website under "Latest bibliographic coverage" and "Latest full-text coverage". Both lists are updated daily. Latest Full-text coverage information can be found at http://www.epo.org/searching-for-patents/technical/full-text-additions.html

Updates to the database

The Espacenet database is updated daily. Data is added to the database as soon as possible after it is received from the national patent granting authorities, in some cases on the day of publication.

Availability of searchable data in the database

Documents in the database have the following searchable fields: application number, priority number, publication number, publication date, inventor, applicant, International Patent Classification (IPC), Cooperative Patent Classification (CPC), title, abstract, description, claims and citations.

The CPC assigned by EPO examiners to non-European patent documents is usually available a few months after the publication date. This should be considered if you are targeting recently published documents.

English abstracts are normally loaded approximately one month after the publication date, depending on availability and delivery from the national offices and patent-granting authorities.

If the abstract is published in a language other than English, the original abstract is usually translated into English, unless there are English abstracts already available for patent family members. Otherwise, the abstract is requested and subsequently loaded into the database.

Espacenet gives you access to:

- more than 95 million patent documents – most of them patent applications – from around the world, journal articles, and before new products reach the market. Patent applications normally represent the first publication of a new idea, appearing ahead of journal articles
- patent family information, telling you if similar patents have been filed in other countries
- legal status information, helping you find out whether, and in what countries, a patent is in force
- deep links to some national registers
- references to other kinds of technical literature (non-patent literature)
- citations – other documents cited by or citing the document you are looking at
- links to the European Patent Register for European and Euro-PCT documents and to selected national patent registers
- Global Dossier links to the file wrapper for US, Canada, WIPO, Chinese, Japanese and Korean patent applications.
- export to CSV/XLS
- searching by keyword in title abstract and full text (description and claims) and CPC
- CPC browser with CPC's assigned to EP docs after a delay. (Other docs are assigned CPCs as they are loaded into the database.)

Global Dossier

The link to Global Dossier offers access to patent or application "file wrappers", free of charge and with automatic machine translations to English. The file wrapper contains a historical listing of public documents including search reports, office actions, correspondence between the applicant and the patent office, and often the current legal status (status should be verified with the national office).

Common Citation Document

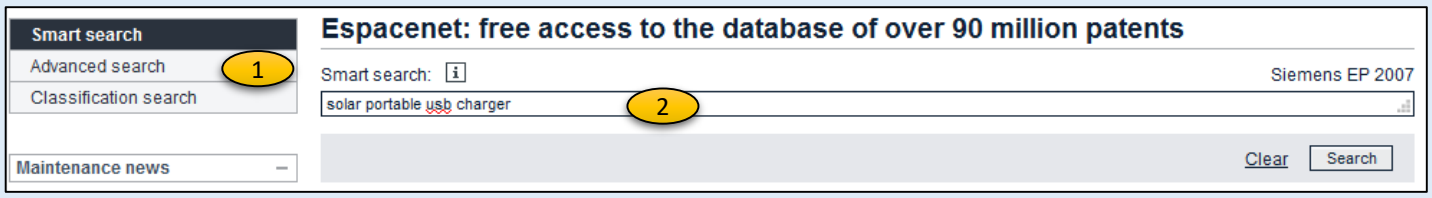
Clicking on the CCD link allows users to search for and view all documents cited by more than 35 patent offices in the search process for applications for the same invention.

Online customer support, helpdesk and training

Espacenet has many resources for anyone needing help in searching or using this powerful search tool.

Discussion Forums

Forums allow you to post your opinions, ask questions and share information on Espacenet. Current topics include: Search tips, Technical issues and Meet the experts.



Key Features

Landing page

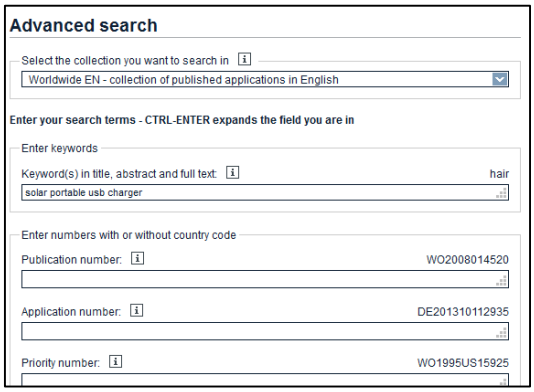
1. On the landing page there are three search options: Smart search, Advanced search and Classification search.
2. The Smart search takes a free-form search statement and will search in title and/or abstract with keywords. It will display a corresponding CQL search statement. You can also construct a CQL command-line search statement using field identifiers, Boolean and proximity operators. You can search full text in abstract or description or claims using the appropriate field identifiers. (See "Help" and "operators")

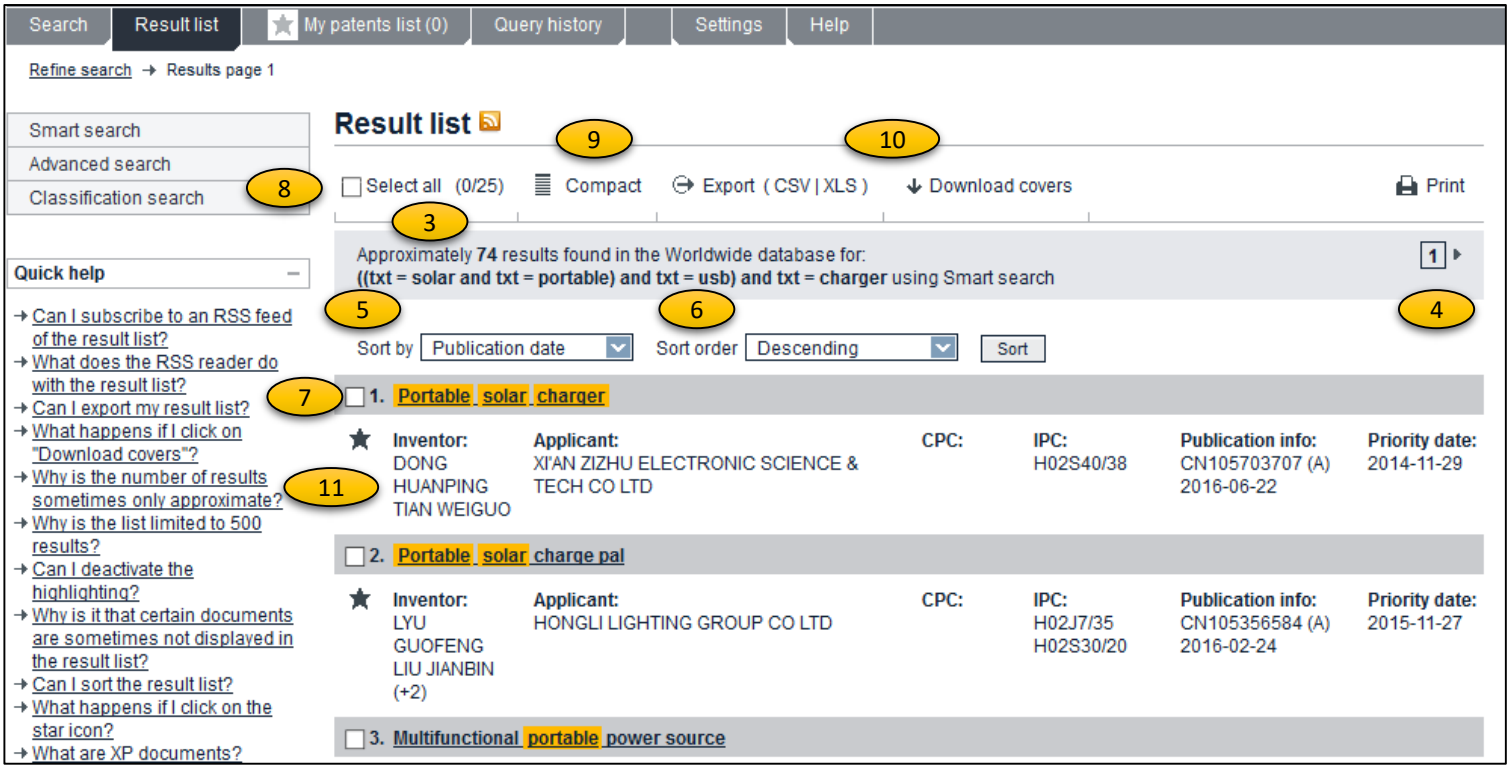
Search results list

3. The number of results is found at the top of the list
4. Arrow for the next page of results
5. Sort functions: publication date, priority date, inventor, applicant and CPC
6. Sort order
7. Check box for selecting documents
8. Select all check box
9. Compact list view
10. Functions of export or download covers
11. Click on star to add the document to My Patents List

Our search example is 'solar portable usb charger'. Using **Smart Search**, a list of approximately 74 results is obtained. "Approximately" indicates a large number of results and the list contains multiple family members. (See results below.) If the list is less than 500, you can manipulate the list by sorting it, in which case the list is de-duplicated, "Approximately..." disappears, and the new list contains only one hit per family.
The advanced search can also be used for specific field searching. The Advanced search, in Worldwide EN for full text, gives "Approximately 3,744 results"

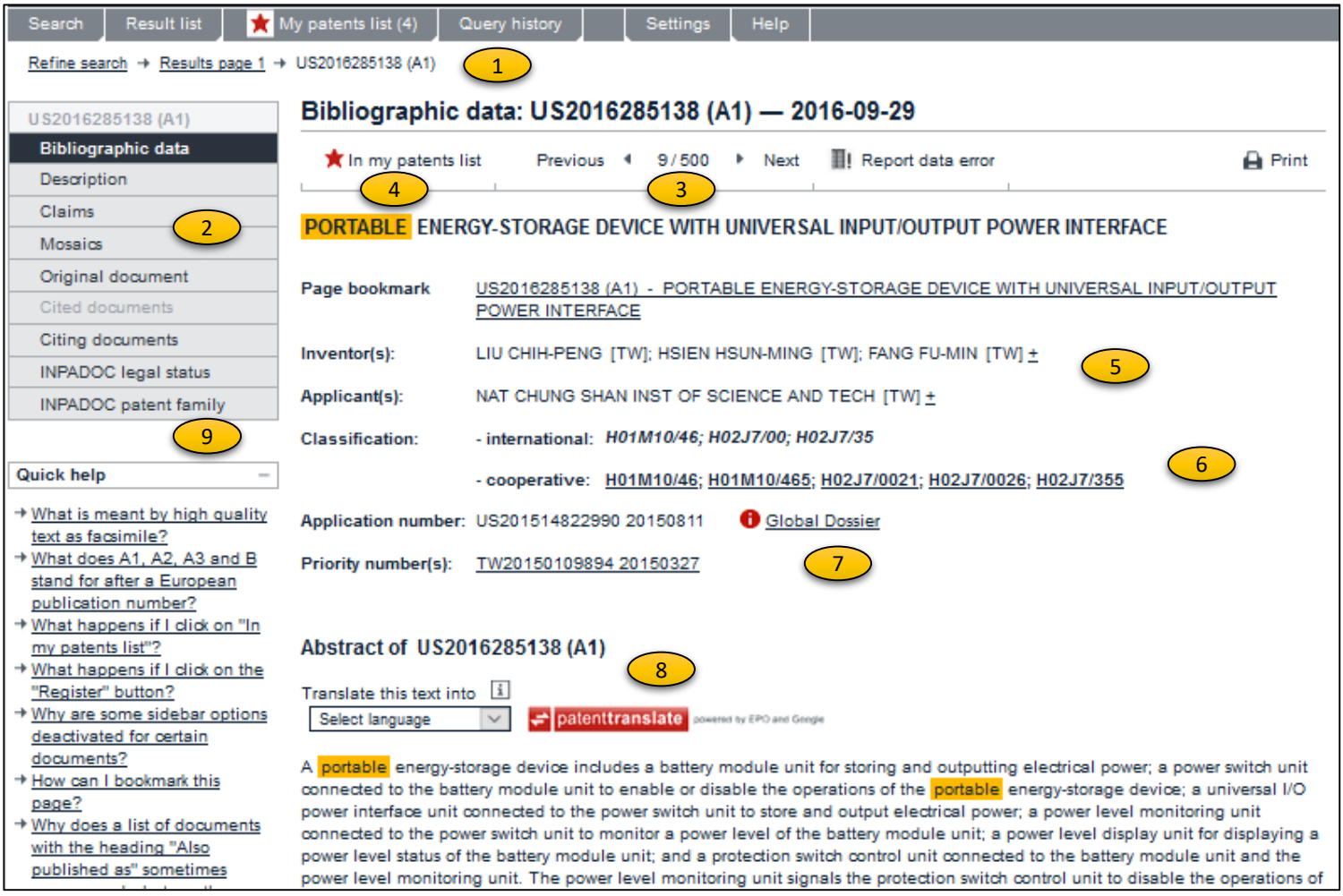
Numerous fields for advanced searching

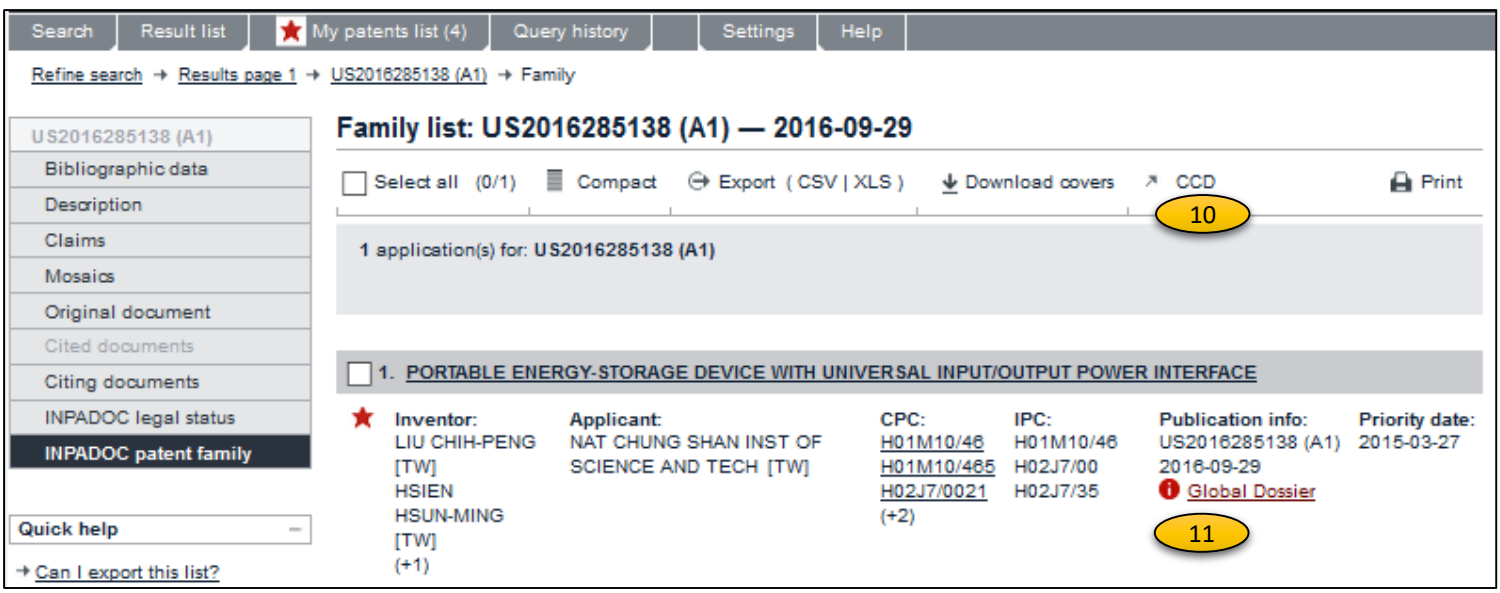




Patent Document View

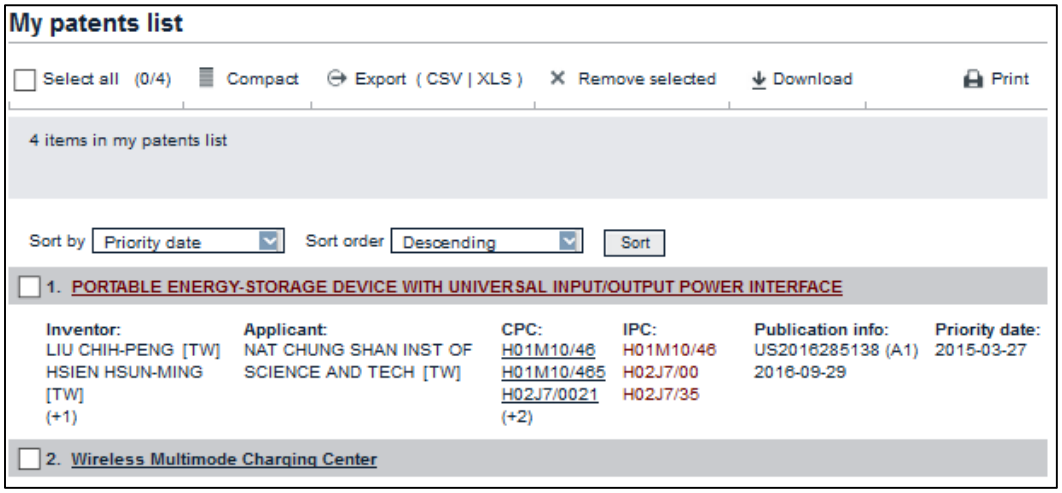
1. Indicator of document being reviewed
2. Menu for parts of the document
3. Previous and Next in result list
4. Highlighted keywords
5. Bibliographic information
6. Classification codes CPC, IPC
7. Link to Global Dossier on the document view page
8. Translation options
9. INPADOC patent family
10. Link to Common Citation Document on the family list page
11. Link to Global Dossier on the family list page

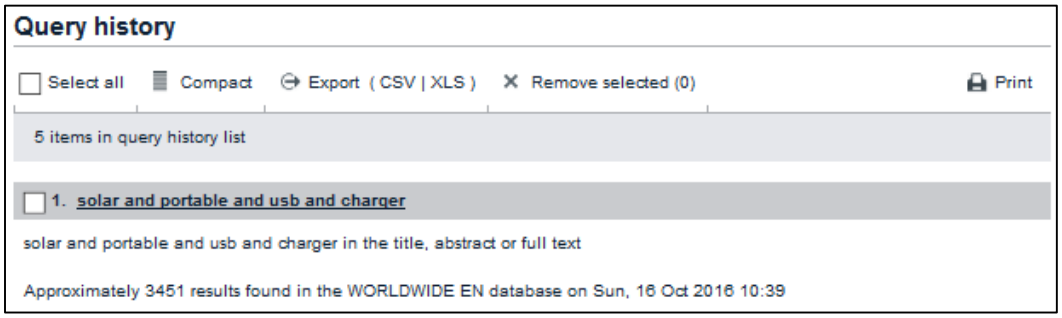


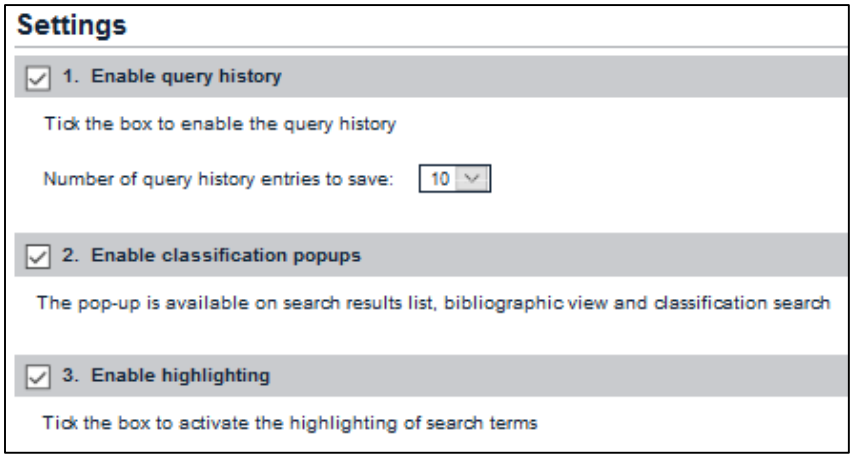


Results Manipulation

- Translation
- My patents list
- Downloads
- Export
- Query history







Additional Information

Smart search
Smart search - entering queries
Smart search - field identifiers
Smart search - operators
Advanced Search
Classification Search
Espacenet Assistant

A guided tour through Espacenet, crash courses (24 courses in 1-3 minutes), and Help index.

My patents list is maintained one year unless updated.

The **query history** is maintained permanently unless deleted or overwritten. (Maximum of 50 query history entries.)

Check **settings** before using Espacenet for the first time. These functions are not automatically enabled.

Privacy and Security

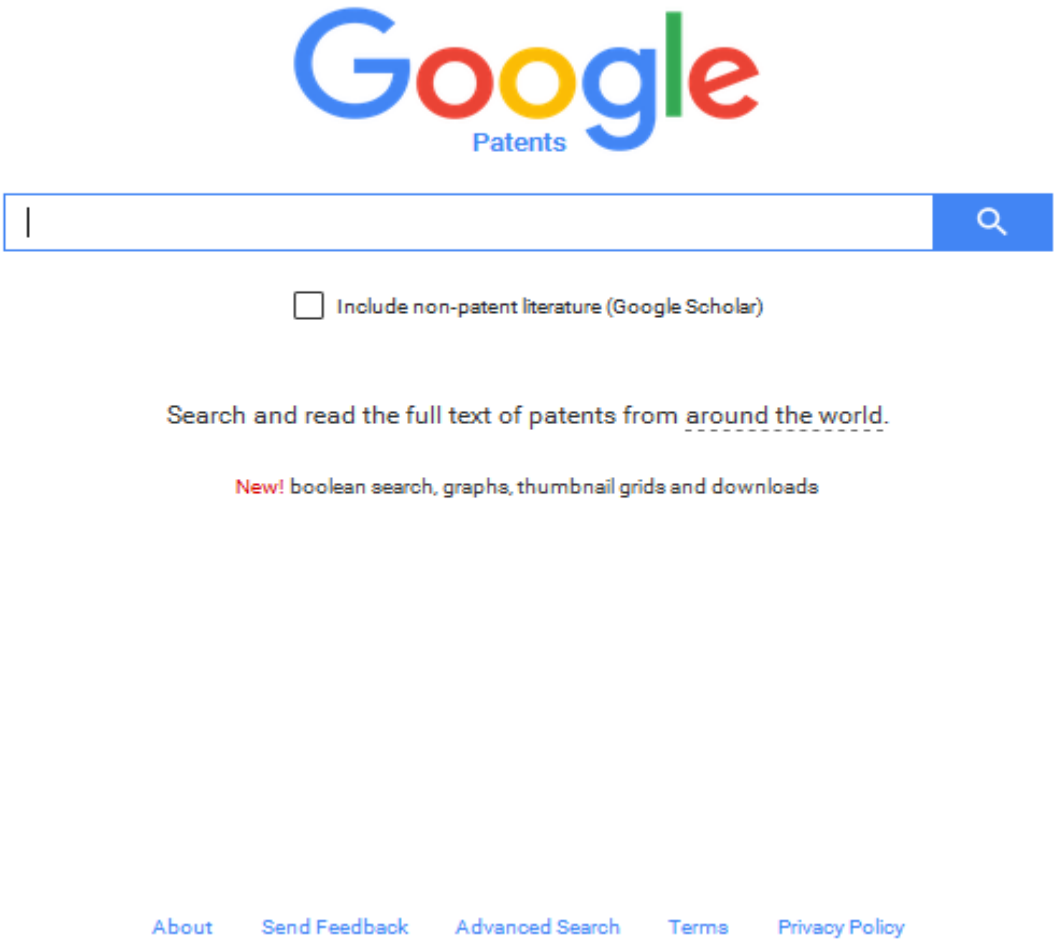
Secure access to Espacenet is now available. This means that you can search in Espacenet within a verified secure domain. It also verifies that all communications between your browser and the website are encrypted.

Espacenet does not monitor individual searches. For more information, see EPO and Espacenet Terms and Conditions.

Provider's Note

Key features and important points include: data coverage, CPC browser, links to Global Dossier, links to national registers, Common Citation Document , online customer support, forums, and expert helpdesk.

Espacenet is a great place to search, get information about patent families and obtain rapid access to national registers.



https://patents.google.com

Overview and Coverage

Google Patents includes over 87 million patent publications from 17 patent offices around the world, as well as many more technical documents and books indexed in Google Scholar and Google Books.

It currently indexes full-text documents from the following patent offices:

United States	Europe
Japan	China
South Korea	WIPO
Russia	Germany
The United Kingdom	Canada
France	Spain
Belgium	Denmark
Finland	Luxembourg
The Netherlands	

You can see the real-time number of documents that are included from each patent office by clicking on "around the world" on https://patents.google.com. These totals include all patents and published applications in the index, but complete coverage cannot be guaranteed.

15 October 2016

Many documents have full-text description and claims available. The "Since ..." dates listed on the statistics graph show when full-text is available, but additional abstract-only documents are often available for earlier dates.

Optical character recognition (OCR) has been performed on the US patents to 1790 to make them searchable, and Google Translate has been used on all non-English patents to make the English translations searchable.

Patents with only non-English text have been machine-translated to English and indexed, so you can search patent publications using only English keywords.

Non-patent literature

New ideas are often published either in patent applications or academic journals. If you are searching for prior art to a patent application, it is critical in many fields to also search for non-patent literature to get a complete view of the state of the art.

To make prior art searching easier, Google Patents includes a copy of the technical documents and books indexed in Google Scholar and Google Books. These documents have been machine-classified using the Cooperative Patent Classification scheme commonly used in patent searching to make finding documents easier.

You can browse the citation metrics for the top publications in Google Scholar Metrics to get an overview of the types and sources of papers included, and see Google Scholar help for details on what papers are included.

Searching

From the homepage, you can begin your search in a few ways:

- **Enter a patent publication or application number**, such as [US9014905B1], [9014905], or [US 14/166,502]
- **Enter freeform text**, such as [autonomous vehicle camera]
- You can also enter ["exact phrases"] and metadata restricts [assignee:"Google Inc"], [inventor:page], and [before:2001]. Note: inventor and assignee names must be entered using the prefixes.
- If you are looking for **prior art**, check the "Include non-patent literature" box to include results from Google Scholar.
- Paste a large block of text, such as a paragraph, to run **the Prior Art Finder keyword extractor** to suggest search terms.

Any good search begins by developing a clear description of the subject of the search.

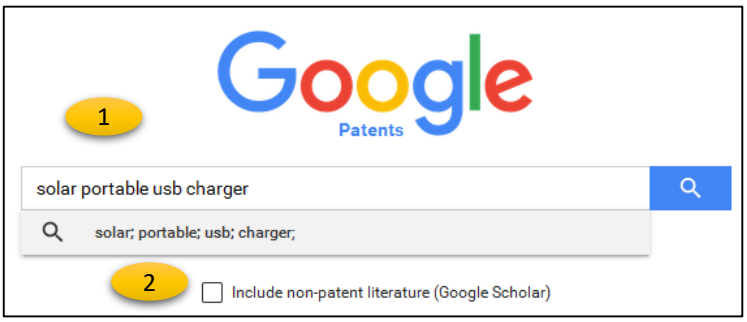
Key elements should be identified and any synonyms for those elements should be noted. (USB = universal serial bus)

Keywords can be tested by using Google and looking at "Images" to determine which words give the best results.

Those words can then used in the Google Patents initial search box or in any other search tool.

https://support.google.com/faqs/answer/7049585?hl=en&ref_topic=6390989

Our search example is 'solar portable usb charger'. Non-patent literature may be included by checking the box, but for our example search we have chosen to only search patents.



New! **boolean search, graphs, thumbnail grids and downloads**

Key Features

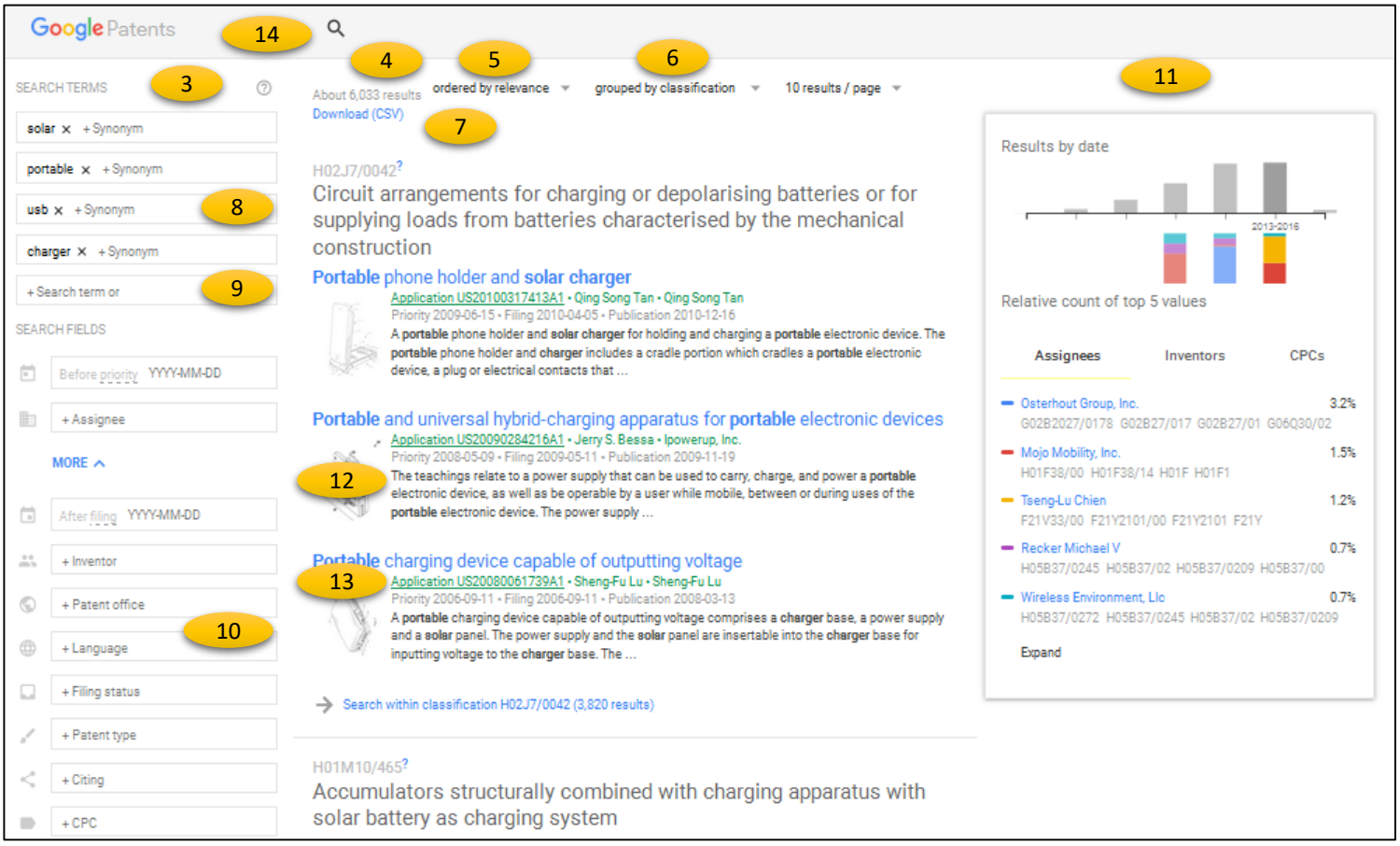
Landing page

1. Initial syntax search
2. Checkbox to include non-patent literature

Search results list

The initial search terms are placed in boxes containing the search terms and additional open fields on the left. Documents are listed on the right. Click on the title to view document details in the patent document view screen.

3. "Boolean" like search with "or" between synonyms and each box being equivalent to "and"
4. Total results number at the top of the results list
5. Results can be ordered by relevance, newest or oldest
6. Results can be grouped by classification or ungrouped
7. Download results
8. Narrow or broaden searches by adding terms in boxes
9. Proposes CPC codes for words in the search terms box
10. Searches can be narrowed by dates, assignee, inventor, patent office, language, status, citing patent and CPC
11. Graphs of top assignees, inventors and CPCs
12. Expanded Thumbnail images
13. Link to PDF document
14. New search magnifying glass



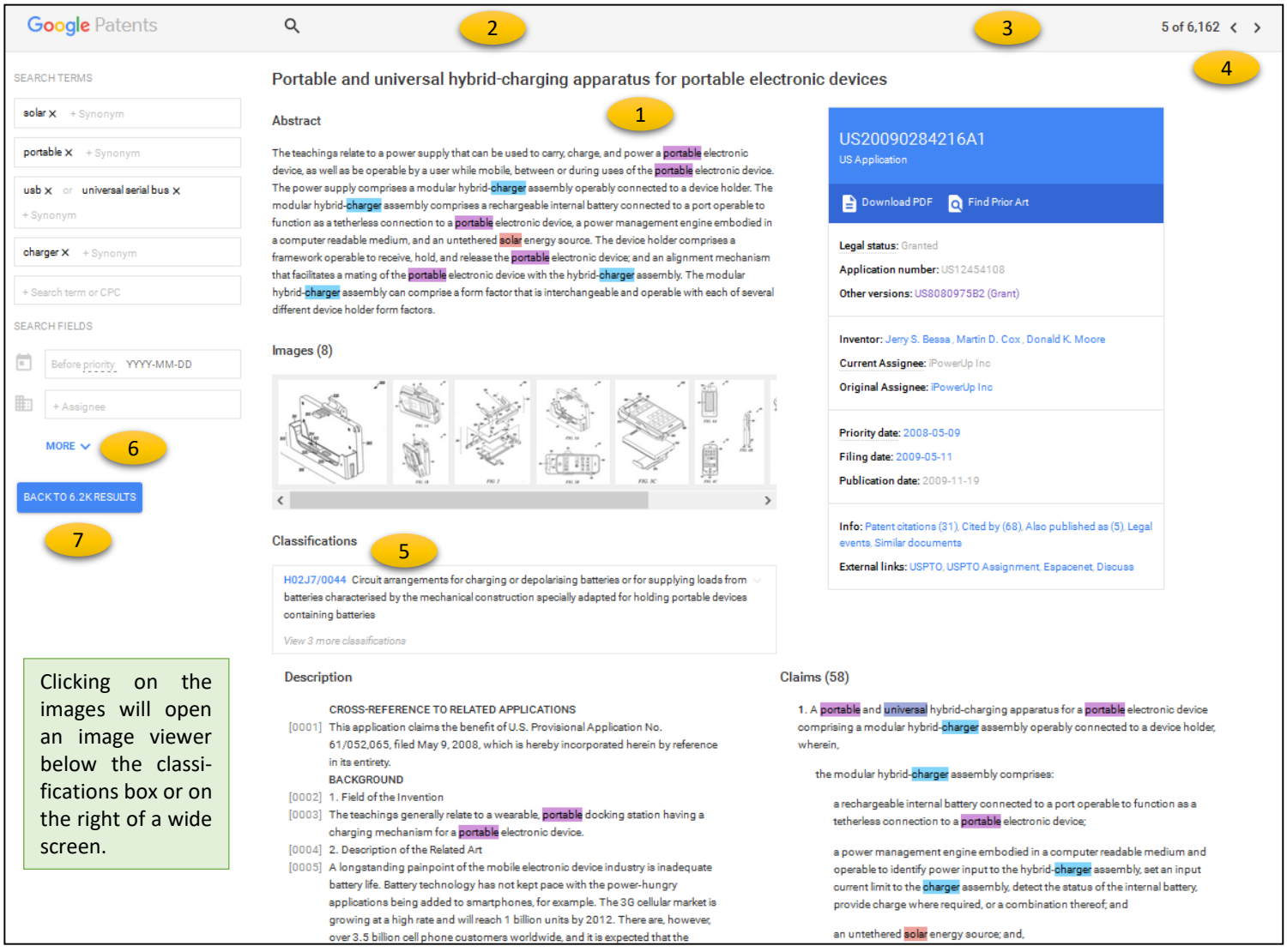
Boolean syntax: Google Patents includes boolean syntax (USPTO or EPO format).
Proximity: You can use proximity operators to boost the score of documents if they contain expressions near each other.
Searching in title, abstract, claims, CPC: Use TI=(safety belt) to search in the title, AB= for the abstract and CL= for the claims. For CPCs, CPC=B60R22 will match documents with exactly this CPC, CPC=B60R22/low matches documents with this CPC or a child classification of this CPC.
Wildcards, truncation: See the "?" next to Search Terms for additional information

Graphs allow rapid access to other documents by the assignee, inventors or CPCs. The top five are viewed by default but the "Expand" link enlarges the list.

Patent document view

By clicking on the title, the document in the document review screen.

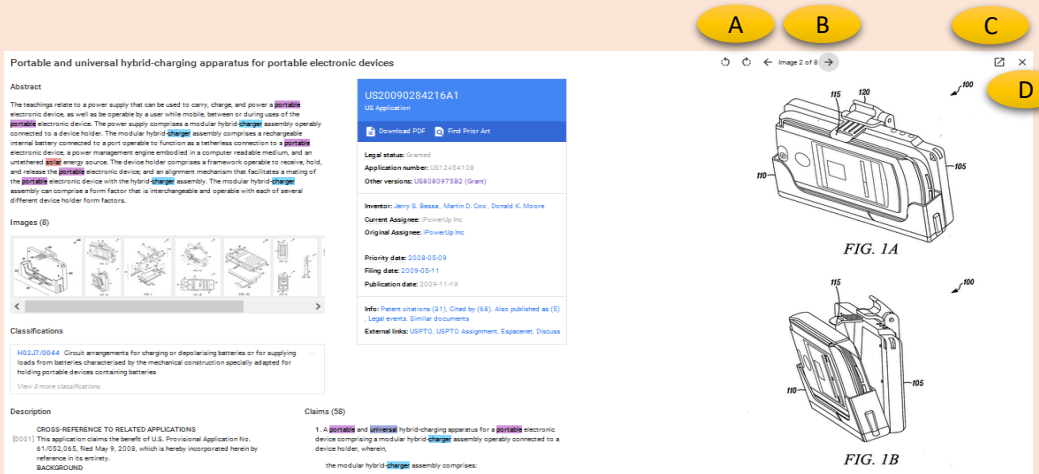
1. Key words are highlighted
2. Abstract, images and description are in the left-hand column
3. Bibliographic information and claims are on the right
4. Arrows to view the next document in the list
5. Classifications are between the images and the description
6. Additional fields to narrow the search
7. Button to return to the results list view



Clicking on the images will open an image viewer below the classifications box or on the right of a wide screen.

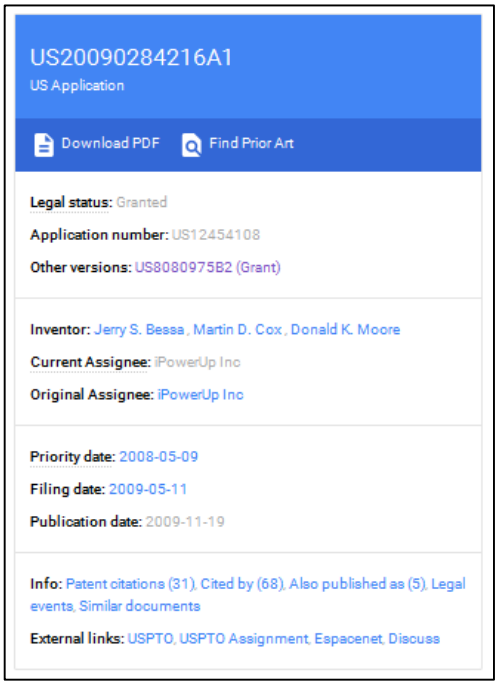
Adjusting the zoom on your web browser when using a wide screen monitor, allows viewing images to the right of the text.

A. Rotate image
B. Next or previous image
C. View enlarge image, open in a new tab
D. Close



Bibliographic Information Box

1. Document number (See "Also published" to find family documents)
2. Download PDF link
3. Find Prior Art link (finds similar documents based on the priority date
4. Legal Status (Verify status or expiration in country database)
5. Other versions (Related documents)
6. Inventor (link to other work by the same inventor)
7. Assignee (link to other documents owned by the same person or organization
8. Priority and Filing dates
9. Patent Citations (backward searching references)
10. Cited by (forward searching references)
11. Also published as (continuation applications or family members in other countries)
12. Legal events (useful for events like assignment information)
13. Similar documents (very useful to find other closely related documents)
14. External links (for additional information about status, prosecution history, family members, etc.)



Results Manipulation

The list results include graphs of the top five assignees, inventors and CPCs.
You can download a CSV file of the top 1000 results.

Privacy and Security

How does Google use information provided through patent search queries?

When Google Patents receives a search request, it is processed automatically by computers.

- Access to individual search queries and associated request metadata from Google Patents is limited to Google employees, contractors and agents who need to know that information, as described in the Privacy Policy about Information Security.
- For example, for security reasons, they may inspect records when they see unusually large traffic spikes; if they start receiving a hundred patent search requests a second from a single source, that source is probably automated abuse of the system. They analyze those logs to protect Google Patents.
- But Google does not inspect Google Patents logs to inform its own patenting strategies.
- The Google Privacy Policy also describes the limited situations in which Google will share user information with third parties.

For more information, please visit the Google Privacy homepage.

How does Google protect my information?

Access to Google Patents is encrypted over HTTPS. For more information, please read about Google's security and Frequently Asked Questions.

Additional Information

- About Google Patents

These help files include additional information about searching using keywords, classifications, metadata, patent or application number.

- Original Google Patents

Some links in Google Images may direct you to the old version of Google patents. (Soon to be eliminated)
In this case, copy and paste document numbers into the new version.

- Advanced Patent Search

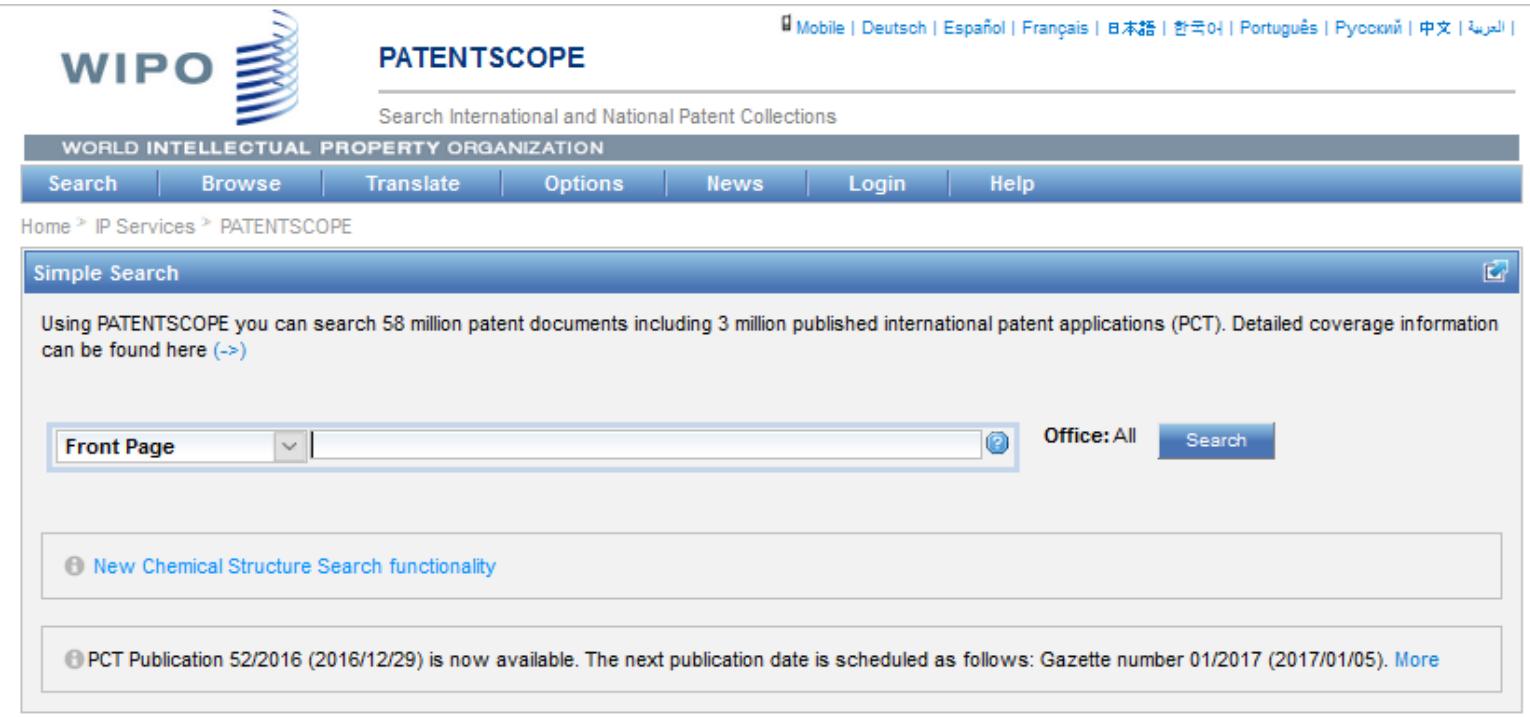
Easy tool for searching in fields for specific information.

- Google Scholar

Used to search non-patent literature but also includes patents and case law searching.

Provider's Note

Google Patents aims to make the collection of patents and prior art accessible and useful to the public around the world by applying search, translation, and machine classification technology.



https://patentscope.wipo.int/search/en/search.jsf

Overview and Coverage

https://patentscope.wipo.int/search/en/search.jsf

The PATENTSCOPE database provides access to international Patent Cooperation Treaty (PCT) applications in full text format on the day of publication, as well as to patent documents of participating national and regional patent offices. The information may be searched by entering keywords, names of applicants, international patent classification and many other search criteria in multiple languages.

Using PATENTSCOPE you can search 58 million patent documents including 3 million published international patent applications (PCT) and increasing. Detailed coverage information can be found at https://patentscope.wipo.int/search/en/help/data_coverage.jsf

There is a New Chemical Structure Search functionality for specialized searches.

PATENTSCOPE has a number of unique and interesting tools for the curious searcher.

For example, you can **search by chemical structure** and all representations of chemical structure are standardized into InChIKey.

Developed in-house and trained on patent corpuses **CLIR (Cross-Lingual Information Retrieval)**, first finds synonyms of your keywords and then translate those found synonyms and the keywords into more than a dozen of languages.

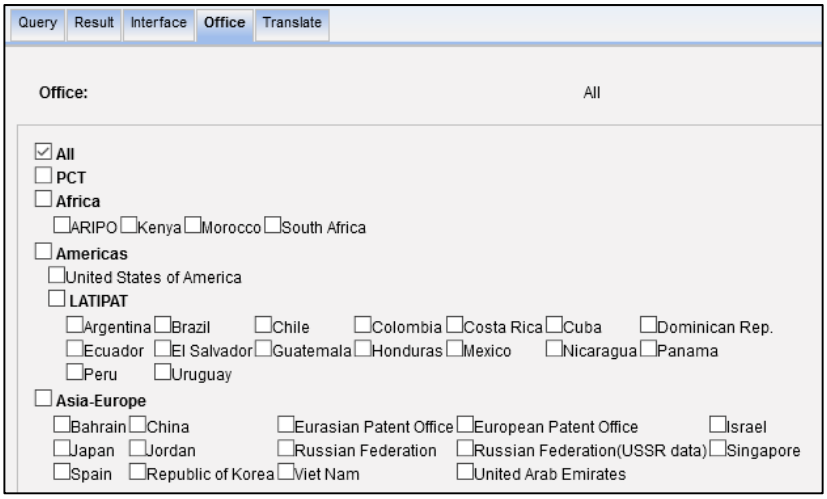
Browse by Week allows you to browse PCT applications by week and includes analysis of PCT applications by IPC code.

There is also a **Sequence Listing** of published nucleotide and/or amino acid sequence listings contained in published PCT applications.

The **IPC Green Inventory** is a list of IPCs associated with Environmentally Sound Technologies (ESTs) as listed by the United Nations Framework Convention on Climate Change (UNFCCC).

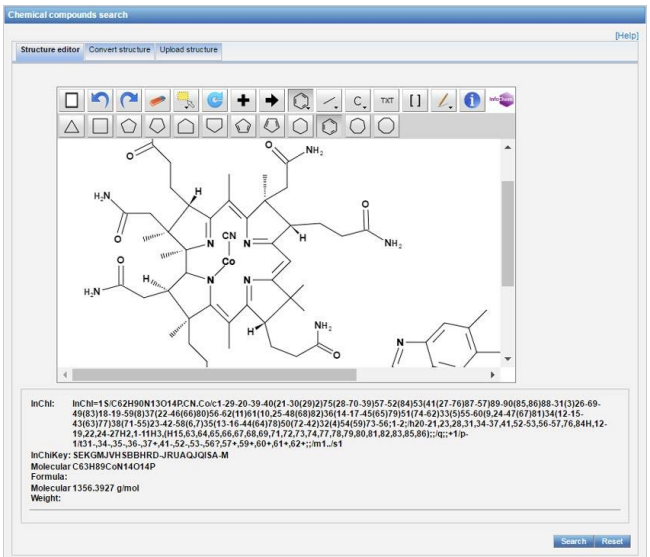
The **Portal to Patent Registers** facilitates the verification of legal status of patents at national registers.

WIPO Translate will translate any pasted text.



Having a PATENTSCOPE account enables you to:

- Save your customized configuration.
- Save your queries.
- Download result lists up to 10,000 records.



An **RSS icon** appears on the search results page. Clicking on the icon takes you to a page from which you can either: copy and paste the URL into your RSS reader or add the search to popular web-based readers using the buttons provided.

Once this is done, the search results will be automatically updated in your RSS reader every Thursday, when new PCT applications are published.

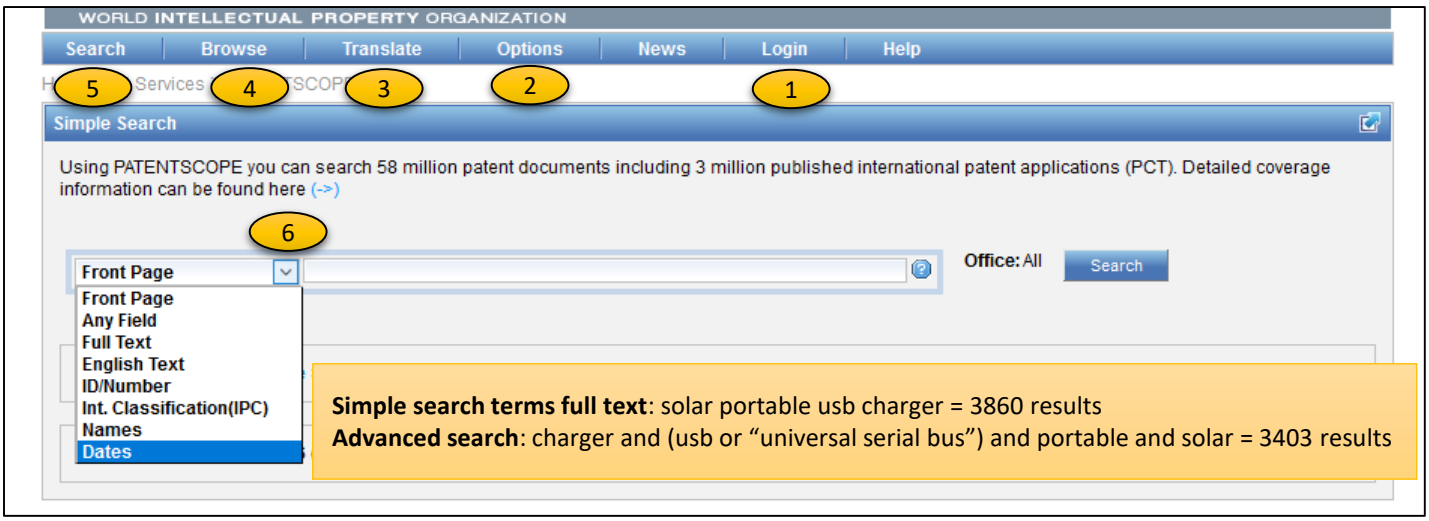
WIPO Pearl is a multilingual terminology portal that provides access to scientific and technical terms derived from patent documents. This tool was developed in-house, trained on parallel patent corpuses and recently upgraded to neural technology

Key Features

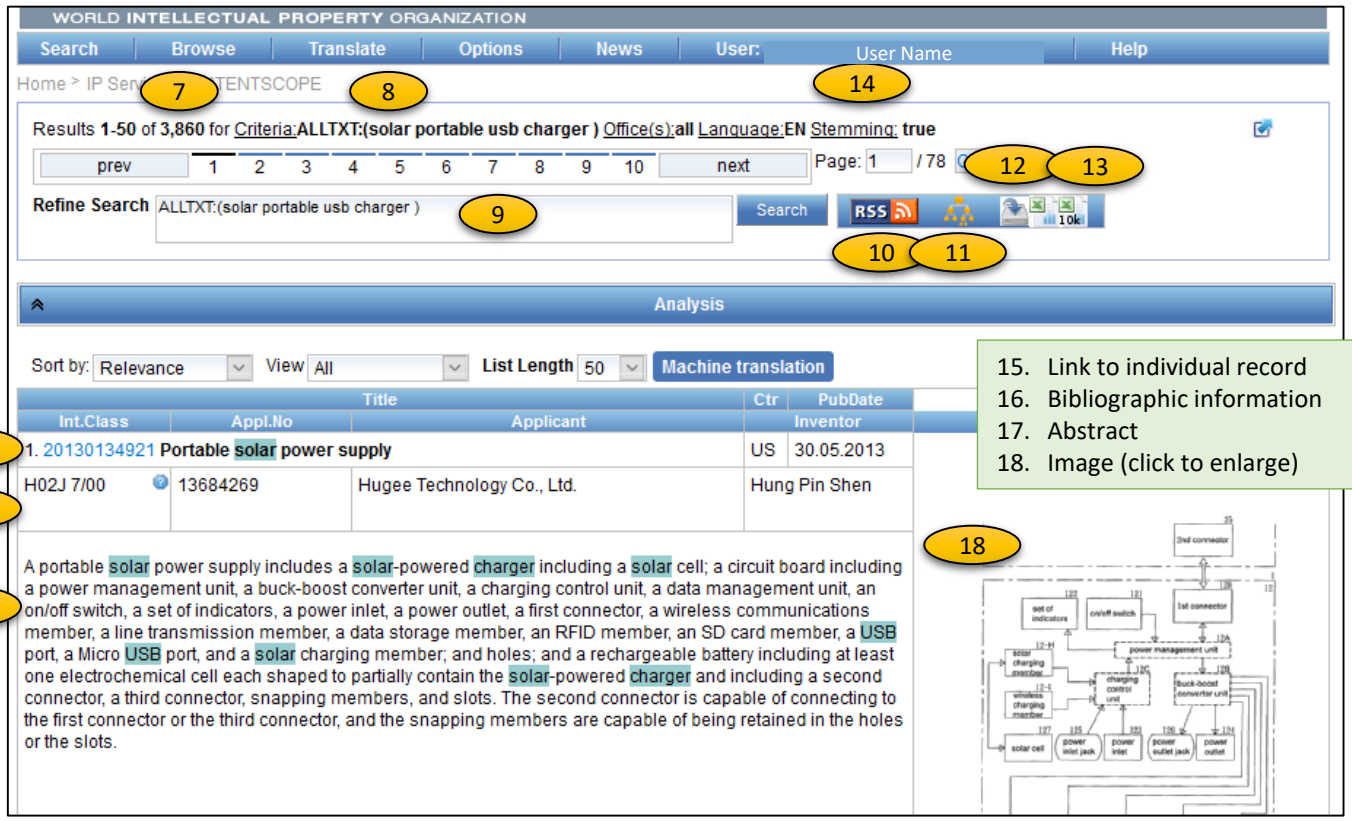
https://patentscope.wipo.int/search/en/search.jsf

Landing page

1. Login and Account sign up
2. Options allows your personal configuration to be saved if you have an account
3. WIPO translate and WIPO pearl
4. Browse PCT by week, sequence listing, IPC green inventory, portal to patent registers
5. Search type: simple, advanced, field combination, cross lingual expansion, chemical structure
6. Selection of where to search in the document record



7. Number of results
8. Search criteria
9. Refine search box
10. RSS feed to receive updated search results every Thursday
11. Query tree
12. Save Query
13. Download result list
14. User functions: session queries, saved queries, save current interface, log out

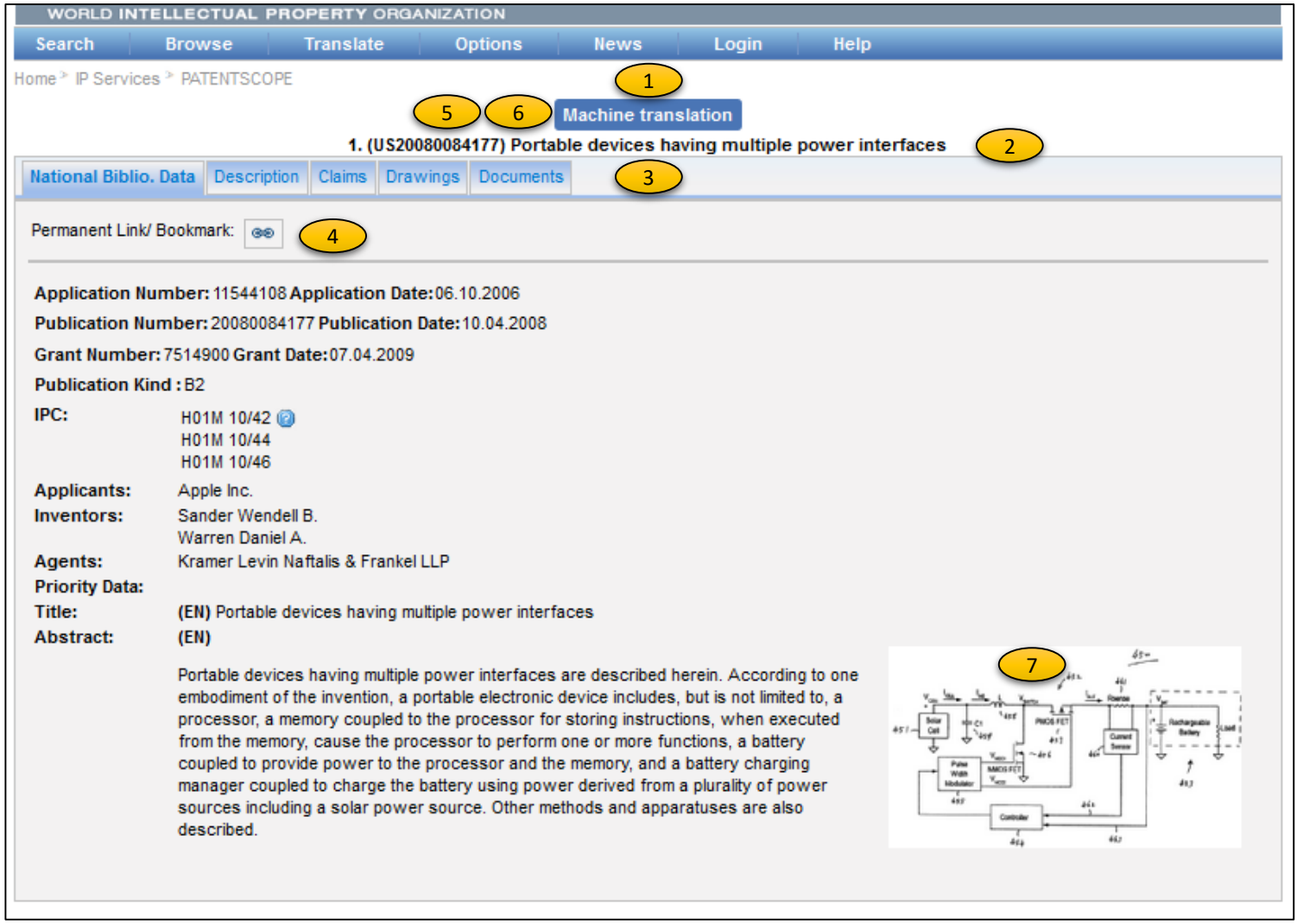


15. Link to individual record
16. Bibliographic information
17. Abstract
18. Image (click to enlarge)

https://patentscope.wipo.int/search/en/search.jsf

Patent document view

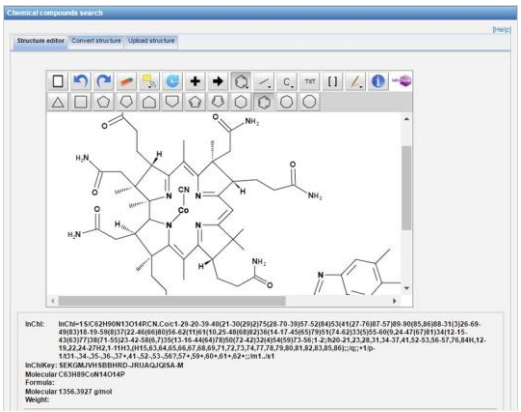
1. Machine translation (WIPO Translate, Google Translate, Bing/Microsoft Translate, Baidu Translate
2. Title
3. Document section tabs
4. Link to bookmark the record for future reference
5. Back to results list
6. Next and maximize view
7. Click on image to enlarge



Additional Information

WIPO Resources

- Video tutorials
- PATENTSCOPE User's Guide
- WIPO Translate
- Data services
- External databases
- Webinars
- Frequently asked questions



Results Manipulation

https://patentscope.wipo.int/search/en/search.jsf

In list view

1. **Sort by:** relevance, publication date descending, publication date ascending, application date descending, or application date ascending.
2. **Display of Query trees**: a new icon "query tree" is displayed next to the RSS icon in the result list. If you click on it, the system parses again your last query, decomposes your query in sub-clauses and executes each sub-clause one by one, letting you know the associated number of intermediate results. For example, when searching "electric toothbrush" in abstracts in all languages with the CLIR interface, the query is the following:

   EN_AB:("electric toothbrush") OR DE_AB:("elektrischen Zahnbürste" OR "Elektrozahnbürste") OR ES_AB:("cepillo de dientes eléctrico" OR "cepillo dental eléctrico" OR "cepillo eléctrico dental") OR FR_AB:("brosse à dents électrique") OR JA_AB:("電動歯ブラシ" OR "を用いた電動電子歯ブラシ" OR "これを用いた電動電子歯ブラシ") OR KO_AB:("전동칫솔" OR "전동 칫솔용") OR PT_AB:("escova de dente elétrica") OR RU_AB:("электрическая зубная щетка" OR "для электрической зубной щетки") OR ZH_AB:("电动牙刷")

   and by clicking the query tree, the distribution per language of the 896 results is displayed:
   - 613 are in English
   - 153 are in German
   - 150 in Spanish
   - 474 in French
   - 24 in Japanese
   - 5 in Korean
   - 3 in Portuguese
   - 48 in Russian
   - 0 in Chinese
3. **Save session queries** in order to view them in another session.
4. **View saved queries** allows you to re-run a query.

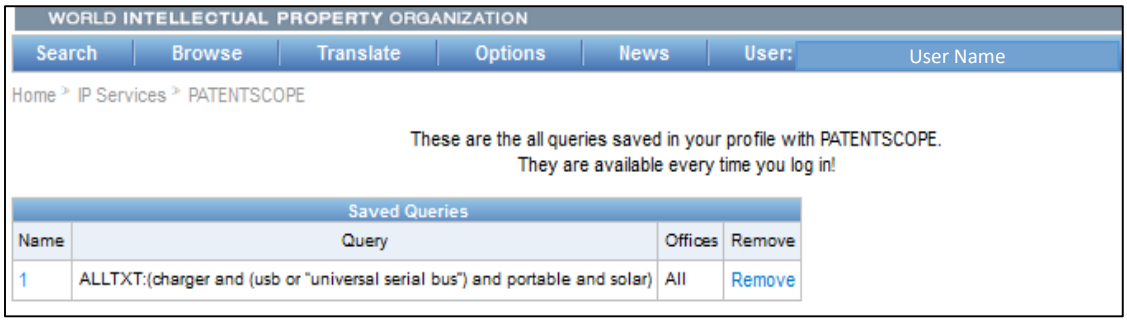
Privacy and Security

During the free registration process for the use of certain pages of WIPO websites, access to certain services, such as the WIPO newsletters, and electronic registration at WIPO conferences and meetings, you may be required to supply an e-mail address and demographic information (address, country, zip code).

WIPO also logs IP addresses, or the location of your computer on the Internet, for systems administration, statistical and troubleshooting purposes.

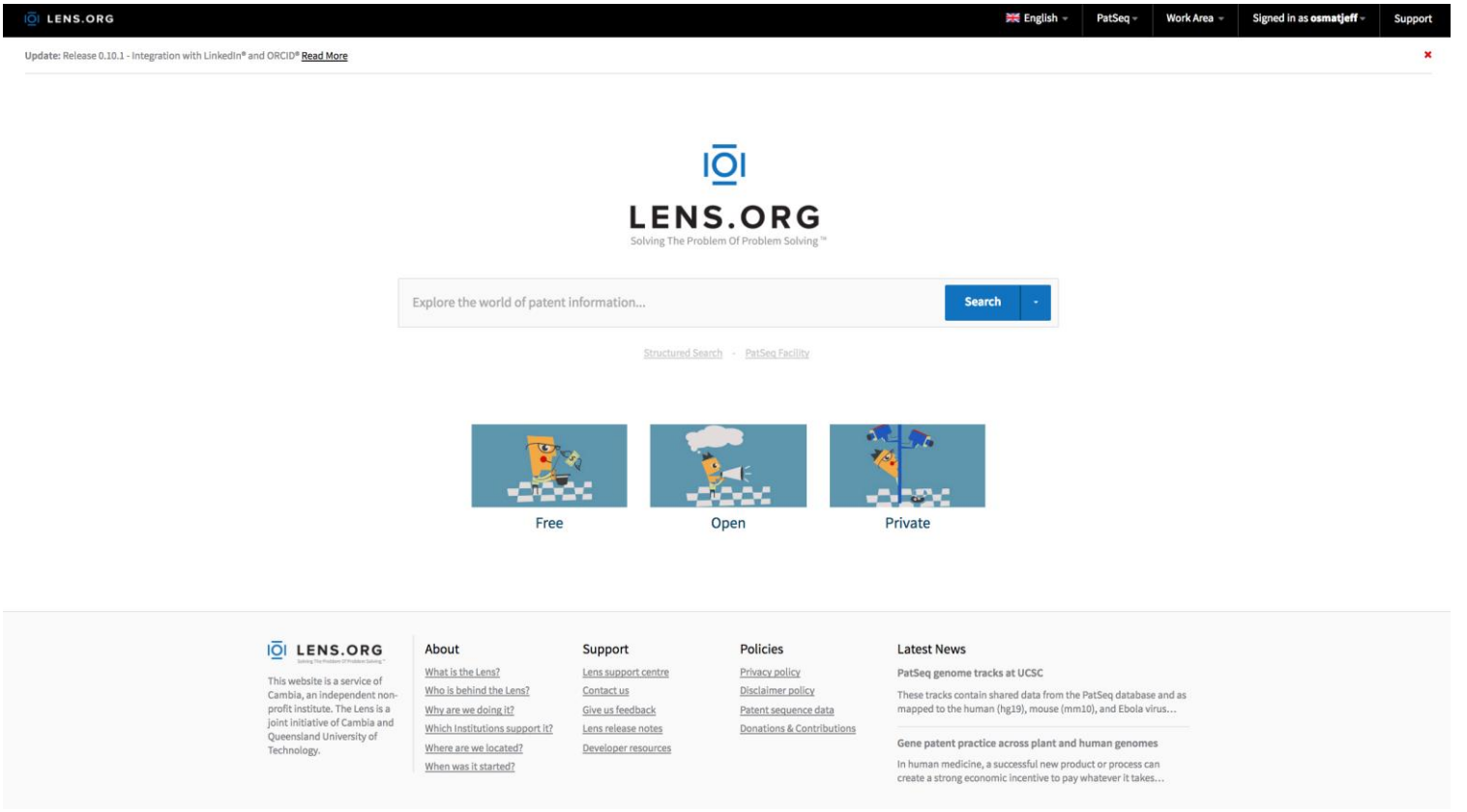
Third parties: WIPO will not provide personal information about you supplied electronically as an individual subscriber to any third party without your consent.
Aggregate disclosure only: WIPO will disclose information supplied electronically to third parties only in aggregate form.
Disclosure: WIPO will provide you all of your personal information provided electronically at registration upon request. This information will only be sent to the e-mail address on file or when the request is supported by the subscriber ID associated with it.
Fora: Any information you disclose when posting a message in any fora, list servers and message boards which WIPO may offer, becomes public. Moreover, subscribers who post a message in WIPO fora and similar services may make their e-mail address available to others through a feature of WIPO fora software, which could result in unsolicited e-mail from other subscribers or parties, for which WIPO declines responsibility.

PATENTSCOPE is an https secure site.
For additional information, see WIPO Terms of Use.



Provider's Note

Key features include: First time available published PCT applications, unique national and regional collections, full-text searching, chemical structure searching, query assistant available to help users build complex queries, and one record for all republications of the same application. Chinese utility models are available.
New: dossier content from participating IP offices is available in the "Documents" tab on the document view page.



https://www.lens.org/lens/

Overview and Coverage

What is the Lens?

The Lens is an open global cyberinfrastructure to make the innovation system more efficient and fair, more transparent and inclusive.

The Lens serves nearly all of the patent documents in the world as open, annotatable digital public goods that are integrated with scholarly and technical literature along with regulatory and business data. The Lens will allow document collections, aggregations, and analyses to be shared, annotated, and embedded to forge open mapping of the world of knowledge-directed innovation. Ultimately, this will restore the role of the patent system as a teaching resource to inspire and inform entrepreneurs, citizens and policy makers.

Patent datasets

Bibliographic data for:

The European Patent Office's DocDB from 1700 with 100+ million documents from over 100 jurisdictions.

Full text, images, and PDFs for:

USPTO Applications from 2001 (4.7M+ documents)
USPTO Grants from 1976 (5.5M+ documents)
European Patent Office (EP) Grants from 1980 (1.49M+ docs.)
WIPO PCT Applications from 1978 (3.47M+ documents)
Australian Applications and grants from 1917 (1.2M+ docs.)

USPTO Assignments (8.5M+ documents)

PatCite: non-patent literature sources

The Lens has integrated the DOCDB citation database that consists of 32M+ citation strings, out of which more than 40% were matched to unique and open persistent identifiers.

- **PubMed** – In collaboration with NCBI, the Lens interrogated 25M+ PubMed unique identifiers (PMIDs) and found matches to non-patent scholarly literature **CrossRef** – In collaboration with CrossRef, the Lens interrogated 85M+ Digital object identifiers (DOIs) and found matches in the non patent literature
- **ORCID®** – Through linkages with DOIs, ability to search by ORCID®IDS (2M+) or text strings for ORCID®IDs to retrieve patent collections that cite the scholarly work of users' selected ORCID® IDs is enabled.

PatSeq

For those working in biotechnology, you will appreciate the amino acid or nucleotide sequence searching and analytic tools. These are based on the world's largest publicly available patent sequence database (262M+ sequences). Coverage details are depicted in the PatSeq Data application and updated monthly. Various text searches of documents or sequence explorer, finder and analyzer are available for you.

LinkedIn® and ORCID® integration for inventorship

For those who like structured searches

The Lens allows you to select fields to be searched. They include:

It should be noted that an assignee field is not present; however, the "Applicants" field selection provides similar search results. "Owners" field is specifically US assignment data that that is used to supplement the EPO-derived Applicant as published data. The Lens also provides links to global patent status information using OPS of the EPO as default.

With respect to **document types**, The Lens organizes its collection by twelve (12) different document types.

1. Patent Application
2. Granted Patent
3. Limited Patent
4. Search report
5. Amended Patent
6. Design right
7. Abstract
8. Plant patent
9. Statutory Invention Registration
10. Supplementary protection certificate
11. Ambiguous
12. Unknown

In the Lens, the term "Limited Patent" encompasses, but not limited to, utility model, simple, innovation, and petty patents, i.e. patents with limited duration and/or rights. If one selects a so-called "Ambiguous" or "Unknown" document, the following message is provided at the top of the viewing window:
"The full document isn't yet available to us from the patent office"

Persistent identifiers – The Lens uses a 15 digit identifier, Lens ID, that allows you to find *many* of the knowledge artefacts associated with a patent record, ranging from the value-added metadata, the original images, the full text and the 'complex work units' (e.g.. DNA sequence), including citations. In the Lens, this unique identifier will be used as the default patent ID and useful for you since it is open, persistent, verifiable and devoid of internal business logic.

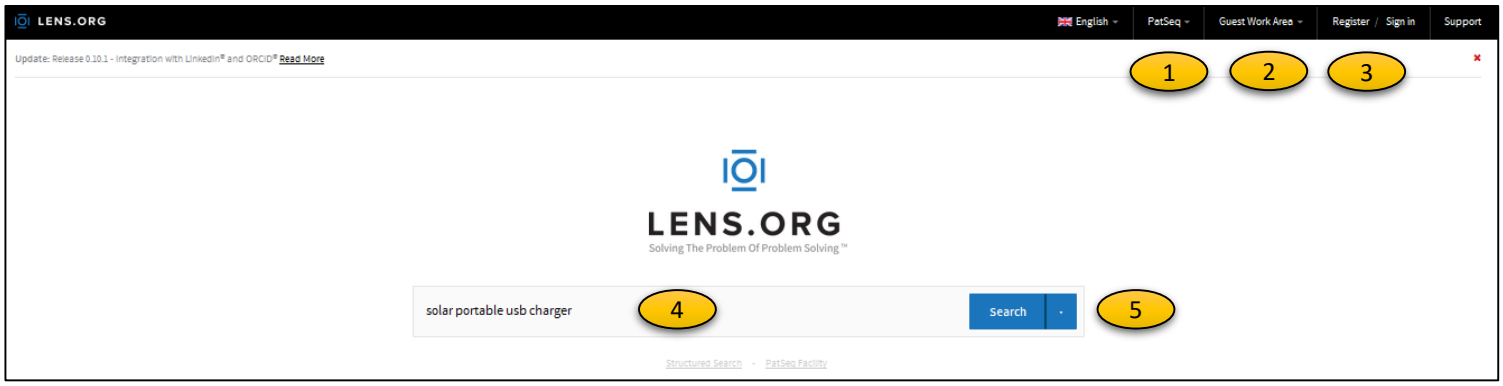
Landing page

1. PatSeq search enables access to patents disclosing genetic sequences and bulk downloads of disclosed sequence data
2. Guest or User tools
3. Account register and Sign in
4. Simple search
5. Structured search option

Key Features

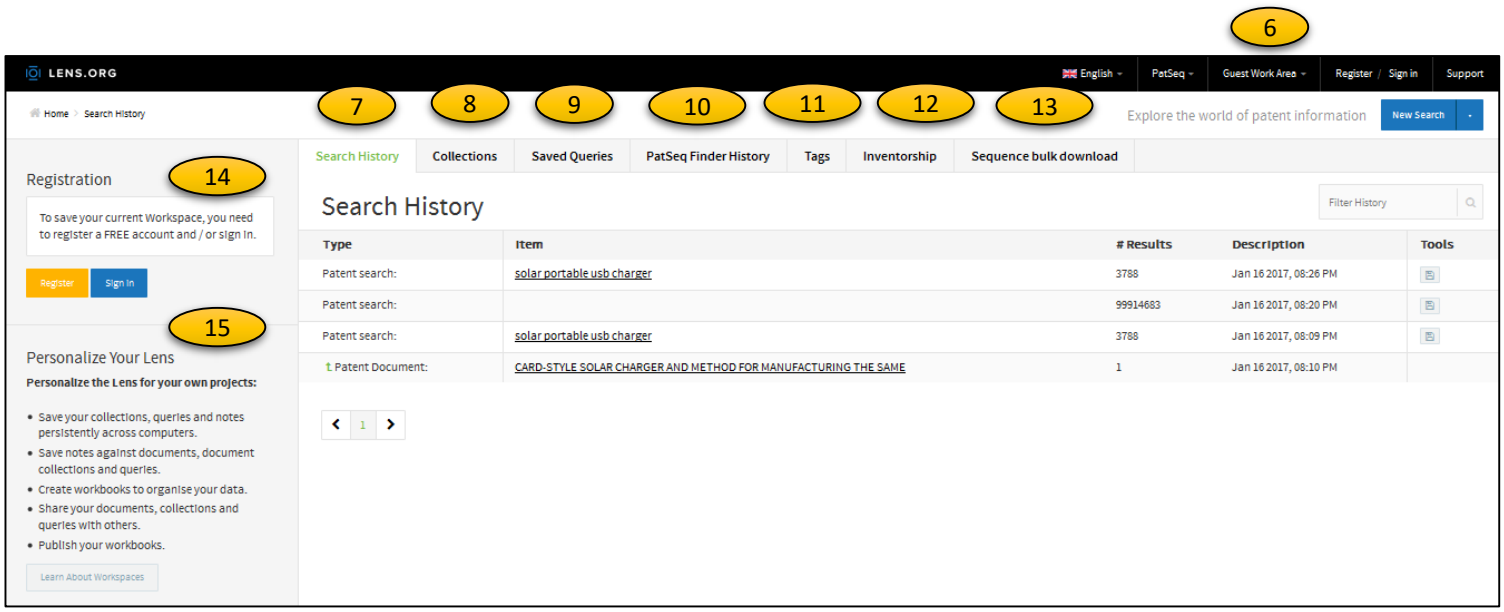
Basic search terms: solar portable usb charger = 3788 (2224 families)
Structured search: charger AND usb AND portable AND solar = 3788 (2224 families)
Structured search: charger AND (usb OR "universal serial bus") AND Portable AND solar = 3824 (2235 families)

Note: operators AND, OR and NOT must be in all caps.



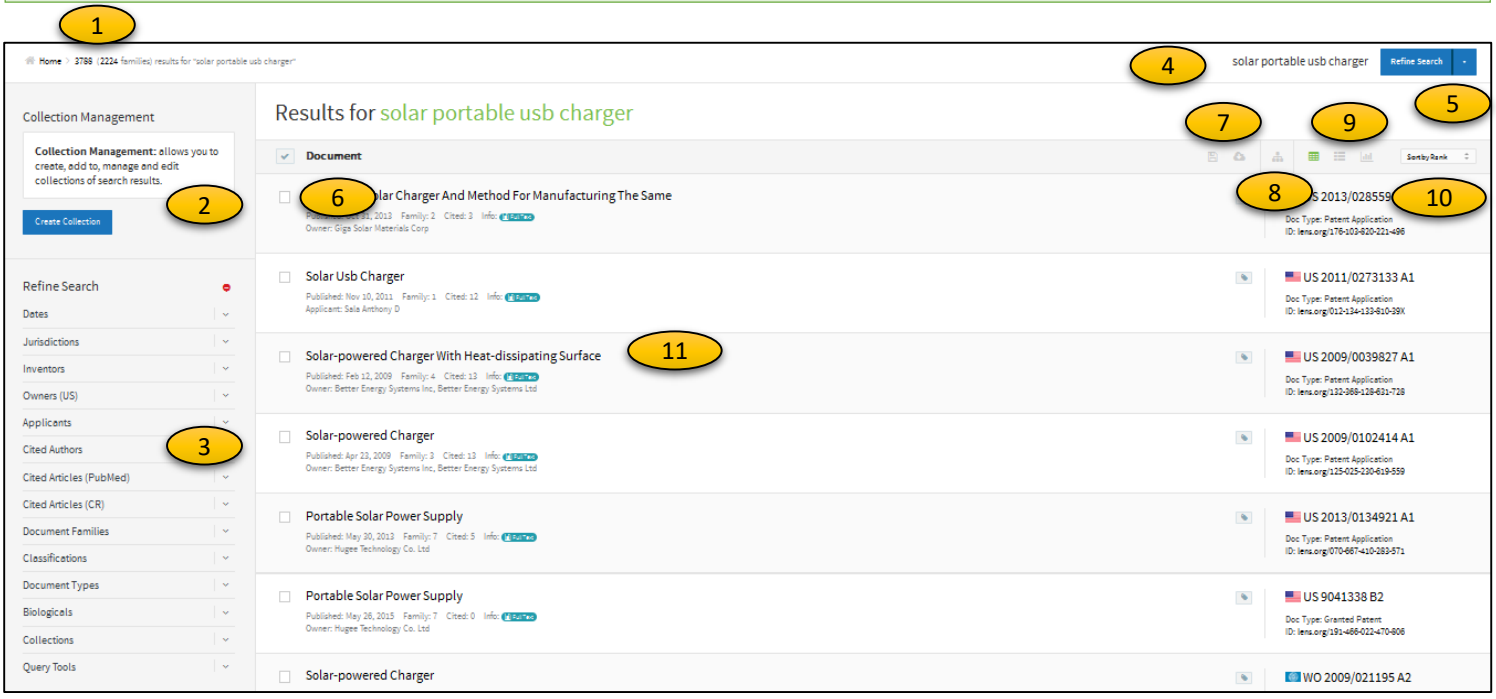
Work area

6. Guest or Personal work area (if signed in)
7. Search history to review and save searches
8. Collections: to save documents of interest
9. Save Queries: searches that can be run again
10. PatSeq Finder History: saved queries
11. Tags: can be added to documents from the search result page to assist in organizing documents
12. Inventorship: allows recording inventorship in the popup dialog for your name in “Inventors” sections. This allows other users to see your profile from ORCID or LinkedIn.
13. Sequence bulk download enables you to download sequence listings extracted from full-text patent documents, megafiles, and public databases in FASTA format.
14. Registration reminder
15. Personalization Options



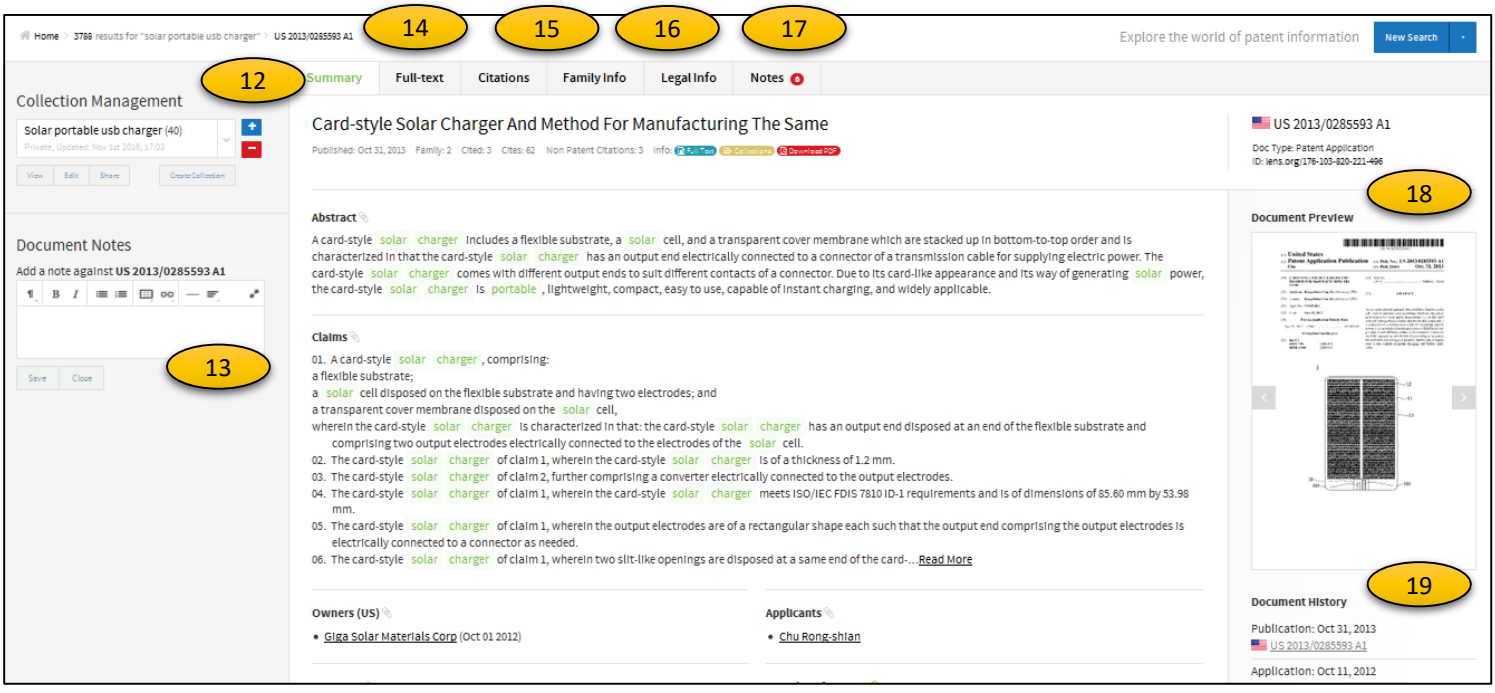
Search results list

1. Number of results and number of families
2. Create a collection of documents of interest for later review
3. Numerous options to refine the search
4. Refine the search by changing search terms
5. New search or structured search
6. Check all or individual document selection
7. Save query, export results
8. Group by simple families
9. Results table, results summary, graphical analysis
10. Sort options: rank, publication, filing, cited, sequences or family
11. Click on title or document number for details



Patent document view

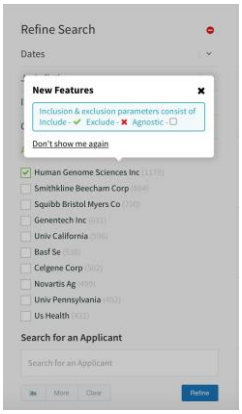
12. Add a document of interest to a collection with +
13. Add document notes
14. Tabs to parts of document: summary & full text, key words highlighted
15. Forward and backward citations
16. Family and legal information
17. Notes can be added either in Notes section or click on the paper clip for each section
18. Document preview; click to open in a new tab
19. Document history



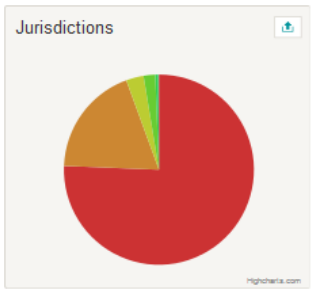
Results Manipulation

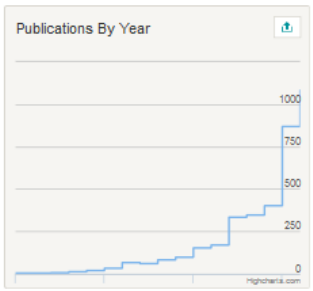
Refine your search within a set of results by using the selection options on the left or by clicking on the "Graphical Analysis". Facets/Graphs include:

- Jurisdictions
- Publications by Year
- Inventors
- Owners
- Applicants
- Authors
- CPC, US and IPCR Classifications
- Document Type
- Citation ID (DOI/PMID)
- Biological Organisms
- Top Cited Patents



New functionalities include the ability to "include", "exclude", "ignore" various parameters for each facet within your set of results





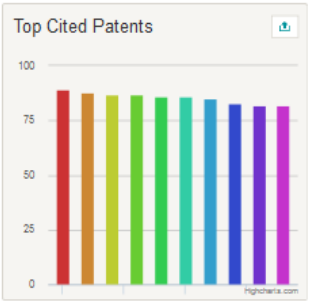
Additional Information

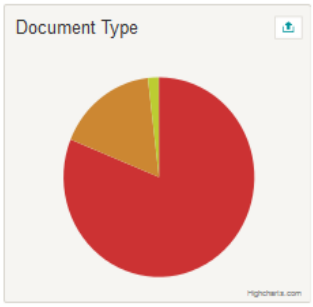
Help Resources

- Basic Help
- Search Results
- Result Views
- Document Views
- Advanced Document Views
- Workspaces
- Biological Tools
- Patent Sequence Tools
- Other Pages

Knowledge Database

- The Basics
- Patents
- Claims
- Continuity
- Patent Rights
- Other Articles
- Around the World
- Biological
- Applied Knowledge





Privacy and Security

Website Visitors

"We want the Lens to be the best tool that it can be, and we are working continually on making the Lens better and better. In order to do this, we need to know what kind of browser you're using, which language version and where you're visiting from. So we collect this information whenever you visit the Lens. But this information will not be used to identify you personally. We would love it if you would tell us who you are and why you use the Lens. But you're going to have to initiate the conversation yourself, because we're not going to snoop around to figure it out on our own."

"We collect this information by using cookies. If you don't want a cookie, then change the settings on your browser so that it won't accept them – simple as that. And when we talk about the Lens or write about the Lens, we might say that "X percent of the people who visit the Lens use the Firefox browser, and Y percent of them use the Russian language version." But that's it."

Email Addresses

"If you want to register for an account, you need to give us a valid email address (we require a valid email address for an account so we can reset your password should you forget it). We're not going to share your email address with anyone. But if you don't want to share one of your email addresses with us, that's fine – just don't register for an account."

The Lens is an https secure site.
For additional information, see The Lens Privacy Policy.

Provider's Note

The Lens is the longest continually operating open full text resource available to date and it strives to make the innovation system more open, efficient, transparent and inclusive. Openness in the Lens means that the patent and non patent knowledge, the collections, the analyses can be shared with "anyone" on any platform with no compromises of privacy or security. Feedback is welcome at support@cambia.org

Summary Chart

So much more could be said for each of these tools but we have limited this presentation to information useful for the casual or occasional searcher. Since searchers have diverse needs, we have chosen to summarize a few of the key characteristics and features here. For each blank box in this list there may be other features you will find useful, therefore, these should not be construed as deficiencies. To improve the quality of your search results, it is highly recommended to use a combination of these and other search tools. It is our hope that you will enjoy discovering these powerful sources of information as much as we did. The IPO Patent Search Committee

Features	Espacenet	Google Patents	PATENTSCOPE	The Lens
Search Authorities	90+	17	41	95
IP 5 Full-text (CN, EP, JP, KR, US)	✓	✓	✓	✓
Non-English documents - Machine translations searched (See links in Document Information and Dates below for details)	Abstracts and many full-text	Full-text	Abstracts and many full-text	Abstracts and many full-text
Document Information and Dates	Bibliographic Full text	"Around the World"	PATENTSCOPE Data Coverage	The Lens Datasets
Syntax search	✓	✓	✓	✓
Boolean search	✓	✓	✓	✓
Search history viewing	✓		✓	✓
Saving of searches	✓		✓	✓
Alerts	RSS Feeds	With Google Scholar	RSS for changes	In 2017
Creation of portfolios or collections	✓	(downloads)	(download list only)	✓
Export of results	✓	✓	✓	✓
Graphing / Analysis		✓	✓	✓
Searchable PDF		✓		✓
Privacy - Account	Https	Https	Https and Account	Https and Account
Security	✓	✓	✓	✓
Links to similar documents	Citations and families	✓ (Algorithm)	In 2017	Citations, families, non-patent literature
Field searching / Advanced search	✓	✓	✓	✓
Patent and non-patent literature	✓	✓		✓
Grouping by family	✓	✓		✓
Design patents	Some	✓		Some
Link to Global Dossier	✓	✓	In 2017	In 2017
Highlighted text	✓	✓	✓	✓

Other Resources

In our early consideration of this document, we were unable to get feedback from the owners of the following tools but have included a mention of them here since Free Patents Online is well known, and See-the-Forest has unique features for patent analysis that you may find useful.

Free Patents Online / SUMOBRAIN

SumoBrain and Free Patents Online are owned and operated by Patents Online, LLC and both search tools feature full-text cross-collection searching of US patents and applications, EP patents and applications, PCT documents, and Japanese abstracts.

The user should be aware that this is not a secured internet site and should take precautions to protect their work.

Among its advantages are the fact that publications are rapidly available, especially for US patent documents. The fielded searches permit very precise Boolean search strings and give highly relevant results. Numerous search fields are available.

Key features include:

1. Quick Search and Fielded Searches
2. Keywords are highlighted in the text of results
3. Possibility of creating an account
4. Login for additional functions and for lists with links to PDF
5. Account functions of portfolios, portfolio downloads, alerts, saved searches, and sharing options.
6. Possibility of creating an account
7. Login for additional functions and for lists with links to PDF
8. Account functions including portfolios, portfolio downloads, alerts, saved searches, and sharing options.
9. Portfolio can be copied, merged, or exported as an Excel spreadsheet
10. Saved searches can be modified
11. Saved search can be used to create an alert

See-the-Forest

This is an interactive patent analytics tool from **ipvision**.

According to ipvision, "When you register to use our free patent search and patent analysis software, you'll be able to:

- Gain access to our comprehensive patent search engine
- Expand your patent search capabilities with sophisticated data mining techniques
- Utilize easy-to-understand patent visualization and patent mapping
- Unleash the power of your own patents
- Take a closer look at competitors' patent strengths and weaknesses
- Find appropriate IP acquisition targets"

For additional information, see Terms of Use for See-the-Forest.

Help on Features and Functions for the "Unregistered User" Permission Level

Search Methods
Search Results
Analysis Results Box
IPVision Patent Maps
Patent Citation Interconnection Maps™
Patent Landscape Maps™
Using Patent Maps
Map Action Menus
Patent Family Maps - You Can View But Not Create These At the Unregistered User Subscription Level
Patent Cousin Maps - You Can View But Not Create These At The Unregistered User Subscription Level
Map Highlighting - You Can View But Not Create These At The Unregistered User Subscription Level

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