

**UNITED STATES
PATENT AND TRADEMARK OFFICE**



USPTO Inventor Info Chat Series: How to Search and why you want to?

Office of Innovation Development
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Email questions to:
inventorinfochat@uspto.gov

UNITED STATES
PATENT AND TRADEMARK OFFICE



Office of Innovation Development

- In Person Assistance (by appointment) for Pro Se Applicants
- Assistance Hotline 1-866-767-3848
- Patent Email Support
innovationdevelopment@uspto.gov
- PTRC Partnership for Patent Education Courses
- Inventor Outreach
 - Independent Inventor Conferences
 - Education for Inventor Organizations
- <http://www.uspto.gov/inventors>



Overview

- Prior art – what it is and why search for it
- Resources for searching
- Search strategies
- Cooperative Patent Classification (CPC)

Send your questions to:
inventorinfochat@uspto.gov



What is Prior Art?

Prior art consists of information disclosed to the public including:

- U.S. Patents and published patent applications;
- Foreign Patents and published patent applications;
- Journal and magazine articles;
- Books, manuals, and catalogs;
- Websites and databases;
- Conference disclosures
- Other types of public disclosures



Why Perform a Prior Art Search?

- Ensure you do not waste time and money on an unpatentable invention
 - Initial filing fees
 - Patent prosecution fees
- Helps with claim drafting: Allows you to draft claims around prior art
 - Avoid submitting an application claiming something already described in a patent
- Avoid infringement of existing patents
 - Infringement or “freedom to operate” search
- Hone your business plan
 - Identify potential competitors
 - Identify potential customers or licensees
- Assists with preparation to discuss your ideas with a registered patent attorney or patent agent



When should you search?

Search may be an ongoing process, not necessarily a single point in time.

- During development of your idea
- Prior to filing a provisional application
- Prior to filing a nonprovisional application

<https://www.uspto.gov/patents-application-process/inventor-info-chat>



USPTO Prior Art Search Resources

USPTO Public Search Facility: <https://www.uspto.gov/learning-and-resources/support-centers/public-search-facility/public-search-facility>

- Free patent and trademark searching
- Patent searching with EAST, same software used by patent examiners
- USPTO's main campus and satellite offices

Patent and Trademark Resource Centers: <https://www.uspto.gov/learning-and-resources/support-centers/patent-and-trademark-resource-centers-ptrc/ptrc-locations>



www.USPTO.gov

- ✓ Web Based Tutorial on Searching
- ✓ Seven Step Strategy
- ✓ Links to Resources
- ✓ Patent and Patent Application Databases

The screenshot shows the USPTO website interface. At the top, the logo 'uspto' is followed by 'UNITED STATES PATENT AND TRADEMARK OFFICE'. Navigation links include 'About Us', 'Jobs', 'Contact Us', and 'MyUSPTO'. A search bar contains 'Search uspto.gov'. Below the navigation bar, there are tabs for 'Patents', 'Trademarks', 'IP Policy', and 'Learning and Resources', along with a 'Quick links' button. The main content area is divided into four columns: 'Getting started', 'Application process', 'Maintaining a patent', and 'Tools & links'. The 'Application process' column has 'Search for patents' circled in red. Below this, there are three summary cards: 'Patents' (General information concerning patents), 'Trademarks' (Trademark basics), and 'Fees and payment' (Pay fees and learn more about filing fees and other payments).

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About Us | Jobs | Contact Us | MyUSPTO

Search uspto.gov

Patents | **Trademarks** | **IP Policy** | **Learning and Resources** | **Quick links**

Getting started

- › Patent basics
- › Process overview
- › Using legal services
- › Inventor resources
- › International cooperation
- › Patent FAQs

Application process

- › **Search for patents**
- › Learn about patent classification
- › Filing online
- › Checking application status
- › Responding to Office actions
- › Patent Trial and Appeal Board
- › Petitions

Maintaining a patent

- › Maintenance fees
- › Correcting your patent
- › Transferring ownership
- › Ordering certified documents
- › Patent litigation

Tools & links

- About EFS-Web**
File a patent application online with EFS-web
- Check application status**
Check patent application status with public PAIR and private PAIR
- Fees and payment**
Pay maintenance fees and learn more about filing fees and other payments
- Patent Trial & Appeal Board**
Resolve disputes regarding patents with PTAB
- Global Dossier**
View international patent filings
- More tools & links**

Patents

? **General information concerning patents**
Find out if a utility, design, or plant patent is right for you

Trademarks

TM **Trademark basics**
Learn about trademarks and find out if it's right for you to apply for registration

Fees and payment
Pay fees and learn more about filing fees and other payments.

<https://www.uspto.gov/patents-application-process/search-patents>



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Examples of Non-USPTO Resources

- Google Patents: <https://patents.google.com/>
- Free Patents Online: <http://www.freepatentsonline.com/>
- Espacenet: <http://worldwide.espacenet.com/>
- Private Patent Search Firms:
 - Pay for a professional searcher to perform a prior art search
- Any web-based search engine
 - www.archive.org
 - Wayback Machine will show older cached versions of the webpage URL
- Others - Think outside the box
 - Video websites
 - IEEE
 - Magazines, Newspapers, other Publications
 - Scientific Journals
 - Visit stores that may sell similar items

Search Strategies

Create a problem / solution statement of your invention

- ❑ Anticipate future developments
- ❑ Be more generalized than one specific embodiment of the idea for your search
 - You want to make sure future competitor products cannot change a minor aspect of your invention and avoid infringing your patent
- ❑ Provide a basis for your patent claims (the legal boundaries of your patent)
 - Important to think critically and produce an accurate problem solution statement
 - Once a patent search is performed, the problem solution statement can be modified
- ❑ Think of different examples of ways your invention could be used



Text Search Strategies

- **Use synonyms or multiple versions or words**
 - Not everyone calls a widget a widget
 - Frequently accepts British English spellings
 - Does not always catch misspellings
 - Acronyms
- **Use truncation (e.g., tune or tuner or tuning)**
- **Use advanced search logic (e.g., "AND" or "OR" or "WITH")**
- **Constantly Evaluate Your Results**
- **Remember: Text Searching is an Iterative Process**
 - Start with a "Big Net" and refine your results step-by-step

Classification Searching

- In general, a classification system is an arrangement of hierarchical categories used to organize “things” by their characteristics and relationships.
- Classification systems are very useful for sorting and searching large collections of information.
- **Classification systems**
 - Cooperative Patent Classification (CPC) schedule
 - Primary system used for Utility Patent Applications
 - US Patent Classification (USPC) schedule
 - Primary system used for Design Patent Applications



Cooperative Patent Classification (CPC)

➤ What is CPC?

- An arrangement of categories by hierarchy used to organize inventions by their characteristics into common subject matter
- Joint partnership with the European Patent Office (EPO) to harmonize USPC and the European Classification system (ECLA)

➤ How do I know where to search in CPC?

- You can use the statistical mapping tool on the Classification Search Page to get started if you are familiar with USPC
- Any electronic version of an issued US Patent or PGPub accessed via USPAT, EAST/WEST, or Google Patents will list the CPC classification of most published documents
- CPC symbols are also printed on the face of more recent US Patent and PGPub documents



CPC – (cont.)

The CPC is divided into 8 main areas, A-H

- **A – Human Necessities**
 - Agriculture, Foodstuffs
 - Apparel (including footwear, hats, and jewelry), Furniture
 - Medical Devices and Hygiene, Sporting Goods
- **B – Performing Operations; Transporting**
 - Separating, Mixing, Shaping, Printing
 - Transporting
 - Micro- and Nano-Technology
- **C – Chemistry and Metallurgy**
- **D – Textiles and Paper**
- **E – Fixed Constructions**
 - Building
 - Drilling and Mining
- **F – Mechanical Engineering; Lighting; Heating; Weapons; Blasting; Engines or Pumps**
- **G – Physics**
 - Measuring and Testing, Optics, Photography
 - Controlling and Regulating; Computing, Calculating, Counting
 - Musical Instruments
 - Nuclear Physics, Nuclear Engineering
- **H – Electricity**
 - Electric Elements, Electric Circuitry, Electric Communication Techniques
 - Generation, Conversion, Distribution of Electric Power



CPC – (cont.)

How to read a Classification Scheme

- A61M 25/10
 - . Balloon catheters ({A61M 25/0125 takes precedence; embolectomy A61B 17/22032 ; retractors A61B 17/02} ; inflatable balloons for placing stents or stent-grafts A61F 2/958 ; { stomach balloons for treatment of obesity A61F 5/0003 ; oesophageal tubes A61J 15/00})
- A61M 25/1002
 - .. {characterised by balloon shape (A61M 25/1006 , A61M 25/1009 take precedence)}
- A61M 2025/1004
 - ... {Balloons with folds, e.g. folded or multifolded}
- A61M 25/1006
 - .. {Balloons formed between concentric tubes}
- A61M 25/1009
 - .. {Balloons anchored to a disc or plate}
- A61M 25/1011
 - .. {Multiple balloon catheters}
- A61M 2025/1013
 - ... {with concentrically mounted balloons, e.g. being independently inflatable}
- A61M 2025/1015
 - ... {having two or more independently movable balloons where the distance between the balloons can be adjusted, e.g. two balloon catheters concentric to each other forming an adjustable multiple balloon catheter system}



Why do a Classification Search?

- **Can be very broad or very narrow**
 - A61M 25/10—Balloon Catheters
 - A61M 25/1002—Characterized by Balloon Shape
 - A61M 25/1011—Multiple Balloon Catheters
- **Group devices and methods with similar features**
- **Classification Scheme and Definitions can lead you to other areas of search**



The CPC Classification Picture (CP)

- The set of CPC Allocations (i.e., all Inventive and Additional and combination set allocations) on a CPC document family is the CPC classification picture.
- Example of CPC CP on patent image and patent text from and the EAST and WEST search tools

(10) **Pub. No.:** US 2015/0047065 A1
 (43) **Pub. Date:** Feb. 12, 2015

(52) **U.S. Cl.**
 CPC . *C12N 9/12* (2013.01); *C07K 16/30* (2013.01);
A01K 67/0278 (2013.01); *C12Y 207/10002*
 (2013.01); *C07K 2319/30* (2013.01); *A61K*
2039/505 (2013.01)
 USPC **800/18**; 536/23.2; 435/188; 435/320.1;
 435/328; 435/69.6

US 2015/0047065 image rendition

Allocated after publication

CPC-ISSUED :

TYPE CPC	DATE
CPOI C 12 N 9/12	20130101
CPOI C 07 K 16/30	20130101
CPOI A 01 K 67/0278	20130101
CPOA C 12 Y 207/10002	20130101
CPOA C 07 K 2319/30	20130101
CPOA A 61 K 2039/505	20130101

CPC-CURRENT :

TYPE CPC	DATE
CPCI C 12 N 9/12	20130101
CPCI C 07 K 16/30	20130101
CPCI A 01 K 67/0278	20130101
CPCA A 01 K 2227/105	20130101
CPCA C 07 K 2319/30	20130101
CPCA A 61 K 2039/505	20130101
CPCA A 01 K 2267/01	20130101
CPCA C 12 Y 207/10002	20130101

US 2015/0047065 HTML rendition

Text Searching the CPC Scheme

<https://www.uspto.gov/>

The screenshot shows the USPTO website interface. At the top left is the 'uspto' logo and 'UNITED STATES PATENT AND TRADEMARK OFFICE'. At the top right are navigation links: 'About Us', 'Jobs', 'Contact Us', and 'MyUSPTO'. Below these is a search bar containing 'Balloon Catheter CPC' with a magnifying glass icon. A red arrow points from this search bar down to a larger search bar in the main content area. The main content area has a blue background with the text 'I'm looking for...' and a search bar containing 'Balloon Catheter CPC' and a 'Search' button. Below the search bar is the text: 'For example, "trademark abandonment", "EFS-Web", or "provisional patent"'. To the right of the search bar is a 'Quick links' dropdown menu. Below the search bar is a 'Help Topic' section with a list of links: '> [General information concerning patents](#)', '> [Patent forms](#)', '> [Trademark basics](#)', '> [Financial Manager](#)', and '> [Fees and payment](#)'.

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CPC Scheme Search Results for “Balloon Catheter”



Everything America Invents Act Videos

Balloon Catheter CPC 

CPC Scheme - A61M DEVICES FOR INTRODUCING MEDIA INTO, OR ... 

www.uspto.gov/web/patents/classification/cpc/html/cpc-A61M.html
The following IPC groups are not used in the CPC ... A61M 27/00 - A61M 35/00 take precedence }; **catheters** ...
e.g. for counter pulsation, ...

CPC Scheme - A61F FILTERS IMPLANTABLE INTO BLOOD VESSELS ...

www.uspto.gov/web/patents/classification/cpc/html/cpc-A61F.html
The following IPC groups are not used in the CPC ... (closure means for urethra or rectum or for artificial body openings therefor **A61F 2** ... {using ...



Use CTRL-F to search within the page

The screenshot shows a web browser window with the URL <https://www.uspto.gov/web/patents/classification/cpc/>. The search bar contains the text "balloon catheter". The search results are displayed in a list format, showing patent classes and their descriptions. The search term "balloon catheter" is highlighted in yellow in several entries, such as "Balloon catheter" and "Multiple balloon catheters".

Search Symbol

Enter Symbol

Scheme

Go

Outline ON

Color ON

Curly Brackets ON

References ON

Date Revised OFF

Find: balloon catheter

Options 11 matches

- A61M 2025/09100 . . . {having radio-opaque features}
- A61M 2025/09175 . . . {having specific characteristics at the distal tip}
- A61M 2025/09183 . . . {having tools at the distal tip}
- A61M 2025/09191 . . . {made of twisted wires}
- A61M 25/10 . . . **Balloon catheter**s ({A61M 25/0125 takes precedence; embolectomy A61B 17/22032; retractors A61B 17/02 } ; inflatable balloons for placing stents or stent-grafts A61F 2/958; {stomach balloons for treatment of obesity A61F 5/0003; oesophageal tubes A61J 15/00})
- A61M 25/1002 . . . {characterised by balloon shape (A61M 25/1006, A61M 25/1009 take precedence)}
- A61M 2025/1004 . . . {Balloons with folds, e.g. folded or multifolded}
- A61M 25/1006 . . . {Balloons formed between concentric tubes}
- A61M 25/1009 . . . {Balloons anchored to a disc or plate}
- A61M 25/1011 . . . {Multiple **balloon catheters**}
- A61M 2025/1013 . . . {with concentrically mounted balloons, e.g. being independently inflatable}
- A61M 2025/1015 . . . {having two or more independently movable balloons where the distance between the balloons can be adjusted, e.g. two **balloon catheter**s concentric to each other forming an adjustable multiple **balloon catheter** system}
- A61M 25/1018 . . . {Balloon inflating or inflation-control devices}

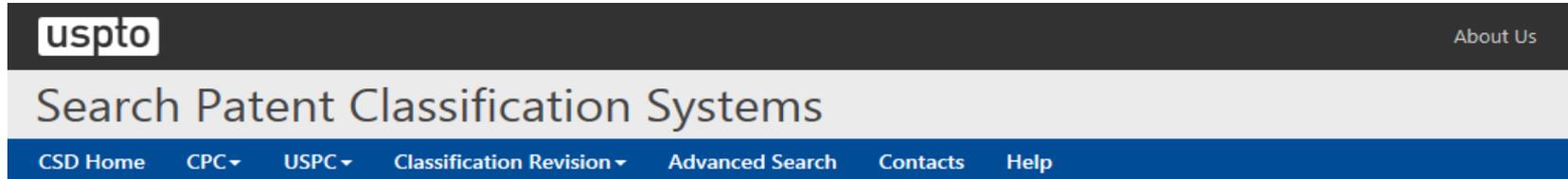
WARNING

Groups A61M 25/10181 - A61M 25/10188

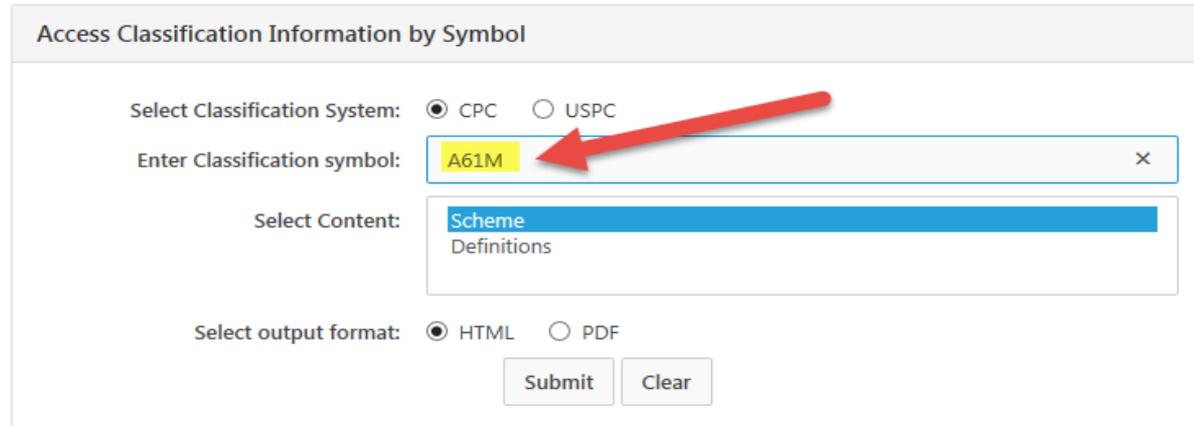
Email questions to:
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USPTO CPC Classification Search

<http://www.uspto.gov/web/patents/classification/>



The header of the USPTO website features the 'uspto' logo on the left and 'About Us' on the right. Below the logo is the main heading 'Search Patent Classification Systems'. A dark blue navigation bar contains the following links: 'CSD Home', 'CPC', 'USPC', 'Classification Revision', 'Advanced Search', 'Contacts', and 'Help'.



The form is titled 'Access Classification Information by Symbol'. It contains the following fields and options:

- Select Classification System:** Radio buttons for 'CPC' (selected) and 'USPC'.
- Enter Classification symbol:** A text input field containing 'A61M'. A red arrow points to this field.
- Select Content:** A dropdown menu with 'Scheme' selected and 'Definitions' as an alternative option.
- Select output format:** Radio buttons for 'HTML' (selected) and 'PDF'.
- Buttons:** 'Submit' and 'Clear' buttons.



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CPC Scheme Uses British English

American	British
Gas	Petrol
Truck	Lorry
Bathroom	Loo
Line	Queue
Stove	Hob
Napkins	Serviettes
Hood	Bonnet
Trunk	Boot

American vs. British Spelling Differences

-ER vs. -RE

American	British
<ul style="list-style-type: none">•center•meter•theater	<ul style="list-style-type: none">•centre•metre•theatre

-LL vs. -L

American	British
<ul style="list-style-type: none">•enrollment•fulfill•skillful	<ul style="list-style-type: none">•enrolment•fulfil•skilful

-DG vs. -DGE

American	British
<ul style="list-style-type: none">•aging•abridgment•judgment	<ul style="list-style-type: none">•ageing•abridgement•judgement

-ED vs. -T

American	British
<ul style="list-style-type: none">•dreamed•learned•leaped•burned	<ul style="list-style-type: none">•dreamt•learnt•leapt•burnt

-OG vs. -OGUE

American	British
<ul style="list-style-type: none">•analog•catalog•dialog	<ul style="list-style-type: none">•analogue•catalogue•dialogue

-ENSE vs. -ENCE

American	British
<ul style="list-style-type: none">•defense•license•pretense	<ul style="list-style-type: none">•defence•licence•pretence

-K vs. -QUE

American	British
<ul style="list-style-type: none">•bank•check•checker	<ul style="list-style-type: none">•banque•cheque•chequer

-OR vs. -OUR

American	British
<ul style="list-style-type: none">•color•favorite•honor•armor	<ul style="list-style-type: none">•colour•favourite•honour•armour

-E vs. -OE or -AE

American	British
<ul style="list-style-type: none">•encyclopedia•maneuver•medieval•leukemia	<ul style="list-style-type: none">•encyclopaedia•manoeuvre•mediaeval•lukaemia

-ZE vs. -SE

American	British
<ul style="list-style-type: none">•analyze•criticize•memorize	<ul style="list-style-type: none">•analyse•criticise•memorise

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CPC Resources

- CPC General Website:
 - <http://www.CPCinfo.org>
- Link to USPTO Classification Homepage:
 - <http://www.uspto.gov/web/patents/classification/>
- Guide to the CPC:
 - <http://www.cooperativepatentclassification.org/publications/GuideToTheCPC.pdf>
- **Espace**net the EPO's public search tool:
 - <http://worldwide.espacenet.com/>
- CPC Online Resources and Training Materials
 - <http://www.cooperativepatentclassification.org/Training.html>
- USPTO PatFT and AppFT
 - <http://patft.uspto.gov/>

Upcoming OID Events

- March 23, 2017 – Working with Patents and Trademarks – Indianapolis, IN
- April 20, 2017 – Inventor Info Chat – Webinar; How to File a Patent Application

For more information or to register for any of the above events contact us at oidevents@uspto.gov

<https://www.uspto.gov/patents-application-process/inventor-info-chat>





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Thank You!

To enquire about OID services please contact us at:

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