

USPTO: Exploring Patents using Classification

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WVU Patent & Trademark Librarian

9 March 2021



Outline

- History of Classification
- Intuitiveness of Tree Structure to Scientists
- Problems & Advantages
- Example on Espacenet
- Translating CPC on USPTO Website
- Public PAIR



Classification



- Grouped in Subject Areas called Classes & Subclasses, e.g. A44C25
- Each Class and Subclass have definitions associated with them.
- Used to classify characteristics of invention
 - (1) essential function,
 - (2) essential effect or basic product resulting from the invention,
 - (3) physical structure of invention, and/or
 - (4) intended use of invention



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"Heart Locket" by EK. Downloaded from
Flickr 21Oct 2015 <https://flic.kr/p/cppq2m>

History of Patent Classification

- Classification allows grouping by category
- USPC
 - Adopted in 1900
 - Ad hoc by industrial classification
- CPC (Cooperative Patent Classification)
 - Based on IPC (1971) and ECLA
 - 8 Sections



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What are the CPC sections?

- A:** Human Necessities
 - B:** Operations and Transport
 - C:** Chemistry and Metallurgy
 - D:** Textiles
 - E:** Fixed Constructions
 - F:** Mechanical Engineering
 - G:** Physics
 - H:** Electricity
- Y:** General tagging of new technological developments; general tagging of cross-sectional technologies spanning over several sections of the IPC; technical subjects covered by former USPC cross-reference art collections [XRACs] and digests

Example of outdated USPC Categories

USPC Class number	USPC Class Category
056	Harvesters
057	Textiles: spinning, twisting, and twining
059	Chain, staple, and horseshoe making
060	Power plants
062	Refrigeration
063	Jewelry
065	Glass manufacturing
066	Textiles: knitting
068	Textiles: fluid treating apparatus
069	Leather manufactures
070	Locks

Example of CPC Categories

CPC Section and Class	CPC Label
A	Human Necessities
A01	Agriculture; Forestry; Animal Husbandry; Hunting; Trapping; Fishing
A21-A24	Foodstuffs; Tobacco
A41-A47	Personal or Domestic Articles
	A44: Haberdashery; Jewelry
A61-A63	Health; Amusement



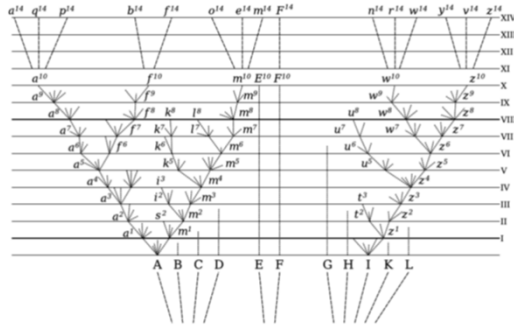
Intuitiveness of Tree Structure to Scientists



Based on Aristotle's *Categories*, this Porphyrian tree appears in Ramon Llull's 1512 *Logica Nova*.



Intuitiveness of Tree Structure to Scientists

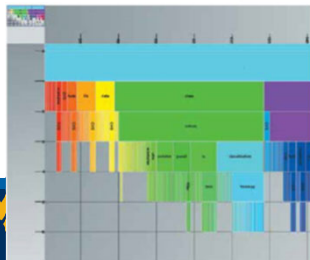
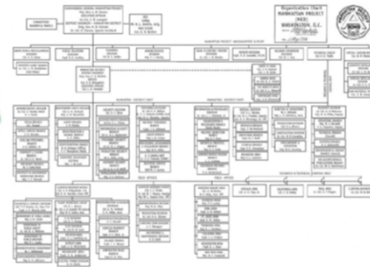
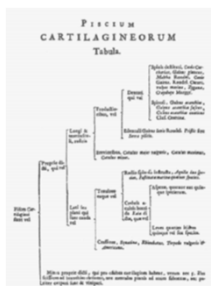


Darwin, Charles. 1859. "Tree of Life." *On the Origin of Species*.



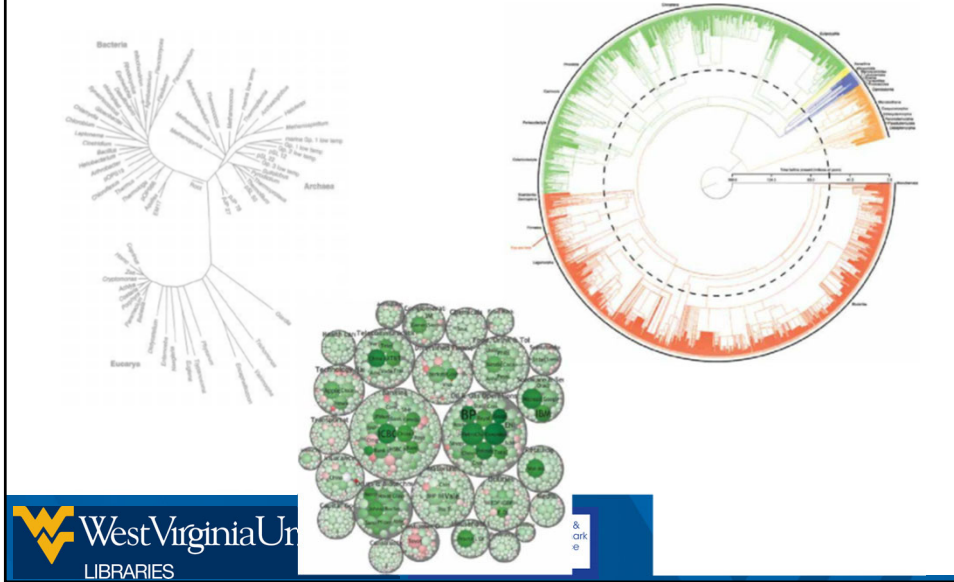
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Intuitiveness of Tree Structure to Scientists

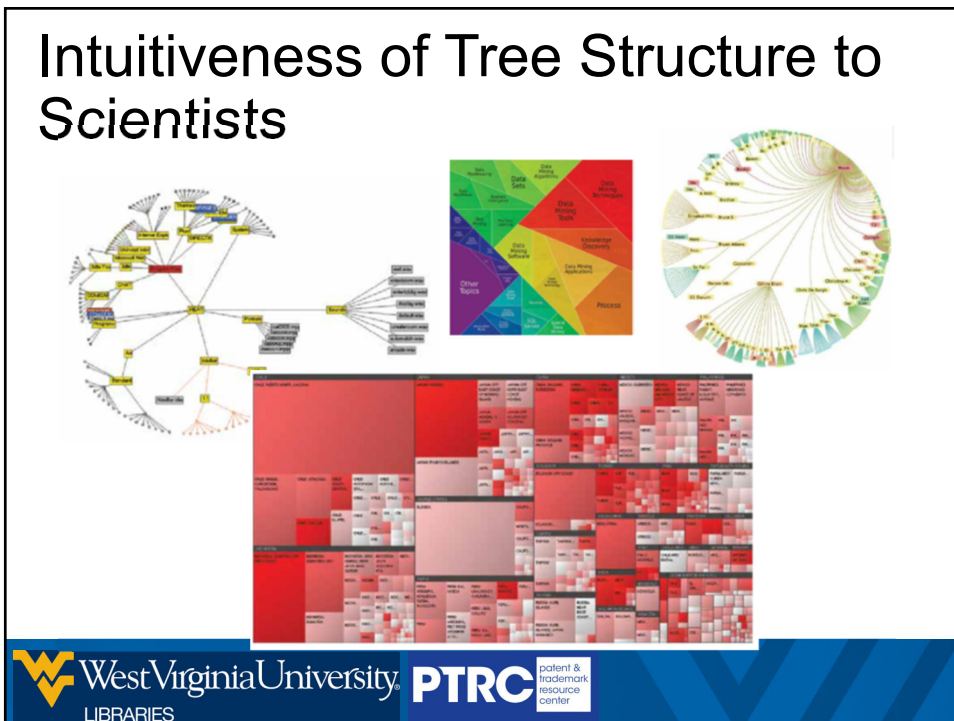


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Intuitiveness of Tree Structure to Scientists



Intuitiveness of Tree Structure to Scientists



Intuitiveness of Tree Structure to Scientists

Symbol	Classification and description
<input type="checkbox"/> F	MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING ENGINES OR PUMPS
	LIGHTING; HEATING
<input type="checkbox"/> F25	REFRIGERATION OR COOLING; COMBINED HEATING AND REFRIGERATION SYSTEMS; HEAT PUMP SYSTEMS; MANUFACTURE OR STORAGE OF ICE; LIQUEFACTION SOLIDIFICATION OF GASES
<input type="checkbox"/> F25B	REFRIGERATION MACHINES, PLANTS OR SYSTEMS; COMBINED HEATING AND REFRIGERATION SYSTEMS; HEAT-PUMP SYSTEMS (evaporation or evaporation apparatus for physical or chemical purposes, e.g. evaporation of liquids for gas phase reactions B01B 1/005 ; heat-transfer, heat-exchange or heat-storage materials, e.g. refrigerants, or materials for the production of heat or cold by chemical reactions other than by combustion C09K 5/00 ; pumps, compressors F04 ; use of heat-pumps for domestic- or space-heating or for domestic hot-water supply F24D ; air-conditioning, air-humidification F24F ; fluid heaters using heat pumps F24H)
	Machines, plant, or systems, with a single mode of operation, not covered by groups F25B 1/00 - F25B 17/00
<input type="checkbox"/> F25B 30/00	Heat pumps
<input type="checkbox"/> F25B 30/02	• of the compression type
<input type="checkbox"/> F25B 30/04	• of the sorption type
<input type="checkbox"/> F25B 30/06	• characterised by the source of low potential heat

Problems & Advantages

- CPC Structure implies one root
- Many inventions combine technologies
- Combine classifications when searching
- Explore gaps

Simple Example

“Locket”



“Locket 1” Eric Wolf. Downloaded from Flickr 21Oct15 <https://flic.kr/p/8UZ6bq>



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Ask 4 Basic questions:



- What does the invention do?
- What is the end result?
- What is it made of?
- What is it used for?



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“Locket 2” Eric Wolf. Downloaded from
Flickr 21Oct15 <https://flic.kr/p/8UW2nX>

Using Espacenet for CPC

- <https://worldwide.espacenet.com/>



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Overview of Espacenet <http://worldwide.espacenet.com/>

The screenshot shows the Espacenet website interface. A red arrow points to the 'Espacenet' logo. Another red arrow points to the search input field with the text 'Type in Keywords'. A third red arrow points to the 'Classification search' section with the text 'Select a group'. The interface includes a search bar, navigation tabs (My Espacenet, Help, Classification search, Results), and a 'Classification search' section with a search input field and a 'Search' button. Below this is an 'Index' with letters A through Y. A table lists classification symbols and their descriptions. On the right, there is a 'Selected classifications' section showing a search result for 'Heart Locket' by EK, with a small image of the locket and a URL.

Classification symbol	Title and description
<input type="checkbox"/> A	HUMAN NECESSITIES
<input type="checkbox"/> B	PERFORMING OPERATIONS; TRANSPORTING
<input type="checkbox"/> C	CHEMISTRY; METALLURGY
<input type="checkbox"/> D	TEXTILES; PAPER
<input type="checkbox"/> E	FIXED CONSTRUCTIONS
<input type="checkbox"/> F	MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; AMMUNITION
<input type="checkbox"/> G	PHYSICS
<input type="checkbox"/> H	ELECTRICITY
<input type="checkbox"/> Y	GENERAL TAGGING OF NEW TECHNOLOGICAL DEVELOPMENTS; GENERAL TAGGING OF CROSS-SECTIONAL TECHNOLOGIES SPANNING OVER SEVERAL SECTIONS OF THE IPC; SUBJECT CLASSIFICATION SCHEMES COVERED BY FORMER USPC CROSS REFERENCE COORDINATING SYSTEMS (DRAC) AND DIGESTS

Heart Locket" by EK.
Downloaded from Flickr
21Oct 2015
<https://flic.kr/p/cpqp2m>

Searching by Keyword

Cooperative Patent Classification

Search for Search View section Index | A | B | C | D | E | F | G | H | Y

Symbol Classification and description

★ ★ ★ ★ ★	<input type="checkbox"/> A44C 25/00	Miscellaneous fancy ware for personal wear, e.g. [pendants,] crosses, crucifixes, charms ((suspension loops or rings A44C 3/008 ; settings for holding gems or the like A44C 17/02))
★ ★ ★ ★ ★	<input type="checkbox"/> A45C 11/00	Receptacles for purposes not provided for in groups A45C 1/00 to A45C 9/00 (specially adapted for toilet or cosmetic equipment A45D ; travelling sewing kits A45F 3/48 ; [devices for carrying bowling balls A63B 47/007])
★ ★ ★ ★ ★	<input type="checkbox"/> G09F 3/00	Labels, tag tickets, or similar identification or indication means (medals or badges A44C 3/00 ; making labels B31D 1/02 ; sheets temporarily attached together B42F ; labelling B65C ; labels on record carriers G11B 23/38 , G11B 23/40); Seals; Postage or like stamps
★ ★ ★ ★ ★	<input type="checkbox"/> Y10T 70/00	Locks
★ ★ ★ ★ ★	<input type="checkbox"/> A01K 27/00	Leads or collars, e.g. for dogs (devices specially adapted or mounted for storing and repeatedly paying-out and re-storing lengths of material B65H 75/34)
★ ★ ★ ★ ★	<input type="checkbox"/> A44C 5/00	Bracelets; Wrist-watch straps; Fastenings for bracelets or wrist-watch straps ((settings for holding gems or the like A44C 17/02 ; devices for putting-on or pulling-off bracelets A47G 25/901))
★ ★ ★ ★ ★	<input type="checkbox"/> A44C 13/00	Connectible jewellery
★ ★ ★ ★ ★	<input type="checkbox"/> G06Q 30/00	Commerce, e.g. shopping or e-commerce
★ ★ ★ ★ ★	<input type="checkbox"/> Y10T 29/00	Metal working
★ ★ ★ ★ ★	<input type="checkbox"/> Y10T 292/00	Closure fasteners

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Classification search

Enter a keyword or a classification symbol Search

Index A | B | C | D | E | F | G | H | Y

Selected classifications

A44C25/004/low X

Clear

Find patents

Classification symbol	Title and description
<input type="checkbox"/> A44C 7/00	Ear-rings; Devices for piercing the ear-lobes
<input type="checkbox"/> A44C 9/00	Finger-rings ((settings for holding gems or the like A44C 17/02))
<input type="checkbox"/> A44C 11/00	Watch chains; Ornamental chains ((fastening devices for watch or ornamental chains A44C 5/18))
<input type="checkbox"/> A44C 13/00	Connectible jewellery
<input type="checkbox"/> A44C 15/00	Other forms of jewellery
<input type="checkbox"/> A44C 17/00	Gems or the like
<input type="checkbox"/> A44C 19/00	Devices for preventing pilfering of watches or jewellery
<input type="checkbox"/> A44C 21/00	Coins (coins specially adapted to operate on G07F 1/06); Emergency money; Beer or gambling tokens, or tokens, or the like
<input type="checkbox"/> A44C 23/00	Rosaries
<input type="checkbox"/> A44C 25/00	Miscellaneous fancy ware for personal wear, e.g. [pendants,] crosses, crucifixes, charms ((suspension loops or rings A44C 3/008 ; settings for holding gems or the like A44C 17/02))
<input type="checkbox"/> A44C 25/001	• [Pendants]
<input type="checkbox"/> A44C 25/002	•• [forming a container, e.g. for pictures]
<input checked="" type="checkbox"/> A44C 25/004	••• [with articulated faces]
<input type="checkbox"/> A44C 25/005	••• [with crosses or crucifixes]
<input type="checkbox"/> A44C 25/007	• [Charms or amulets]
<input type="checkbox"/> A44C 25/008	• [Jewellery worn on collars, e.g. on shirts (brooches A44C 1/00)]
<input type="checkbox"/> A44C 27/00	Making jewellery or other personal adornments

- Keep on clicking on the **RED** until you get to a class that your invention falls under.
- Once you find one you like click the box to check it. That will be added to the search form.
- Note this is a subcategory of "Pendants"

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http://www.uspto.gov

The screenshot shows the USPTO website homepage. At the top left is the URL 'http://www.uspto.gov'. Below it is the USPTO logo and navigation tabs for 'Patents', 'Trademarks', 'IP Policy', and 'Learning and Resources'. A featured article titled 'A patent for girls' empowerment' is visible. On the right, a 'Find It Fast' sidebar contains various links. Red arrows point from the 'Patents' tab to the 'PatFT | AppFT' link, from the 'Patent Center' link to the 'Patent Center | Private PAIR | Public PAIR | Global Dossier' link, from the 'MPEP | Classification' link to the 'MPEP | Classification' link, and from the 'Patent Center' link to the 'Patent Center' link.

uspto UNITED STATES PATENT AND TRADEMARK OFFICE

Patents Trademarks IP Policy Learning and Resources

FOUNDER OF THE GIRL SCOUTS OF THE U.S.A.

A patent for girls' empowerment

Juliette Gordon Low, founder of the Girl Scouts of the USA, created a lasting organization for women's empowerment. FULL STORY>

COVID-19 Response Resource Center Expanding innovation Artificial intelligence

Latest news USPTO report examines the impact of Chinese government subsidies and other non-market factors on the recent rise in patent and trademark filings in China

Public events On January 13, the USPTO published a new report that discusses how the high rate of Chinese patent and trademark filings may

Remarks

Find It Fast

Quick links to applications and tools.

Patents Trademarks

PatFT | AppFT Patent search

Patent Center | EFS-Web | Forms Patent filing

Patent Center | Private PAIR | Public PAIR | Global Dossier Filing status

Pay maintenance fees Pay or look up maintenance fees

PTAB Patent Trial and Appeal Board

Search assignment | Record assignment Search recorded assignment and record ownership changes

MPEP | Classification Guides and manuals

Fees and Payment Fee schedule and payment information

Systems status Current and planned system outages

Classification Text Search

The screenshot shows the 'Classification Resources' page on the USPTO website. It features a 'Classification Symbol Lookup' section on the left and a 'Classification Text Search' section on the right. The 'Classification Text Search' section has a search input field containing the word 'pendant', which is highlighted with a red dashed box. Below the input field, the 'All CPC' radio button is selected. A 'Search' button is located at the bottom right of the search section.

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Classification Resources

Classification Revision & Reclassification General Training Additional Resources Contacts

Classification Symbol Lookup

Select Classification System: CPC USPC

Enter Classification symbol: e.g., B02C or D06P 1/5264

Select Content: Scheme Definitions CPC to IPC Concordance

Select output format: HTML PDF

Clear Submit

Classification Text Search

Enter one or more keywords in the field to search the Classification Scheme (Schedule) and Definitions.

Tip: Use quotes to search for exact phrases (e.g. "fuel cells")

pendant

Select Classification System: All CPC All USPC

Search

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uspto UNITED STATES PATENT AND TRADEMARK OFFICE

61 results

pendant

CPC Scheme - A44C PERSONAL ADORNMENTS, e.g. JEWELLERY; COINS
<https://www.uspto.gov/web/patents/classification/cpc/html/cpc-A44C.html>
 ...fancy ware for personal wear, e.g. (**pendants**,) crosses, crucifixes, charms ((suspension...17/02)) [2013-01] A44C 25/001 . (**Pendants**) [2013-01] A44C ...

CPC Scheme - A45D HAIRDRESSING OR SHAVING EQUIPMENT ; EQUIPMENT FOR COSMETICS OR COSMETIC TREATMENTS, e.g. FOR MANICURING OR PEDICURING
<https://www.uspto.gov/web/patents/classification/cpc/html/cpc-A45D.html>
 ...with bracelet or garter holder; as **pendant** [2013-01] A45D 33/34 . Powder-puffs

CPC Scheme - G05B CONTROL OR REGULATING SYSTEMS IN GENERAL; FUNCTIONAL ELEMENTS OF SUCH SYSTEMS; MONITORING OR TESTING ARRANGEMENTS FOR SUCH SYSTEMS OR ELEMENTS
<https://www.uspto.gov/web/patents/classification/cpc/html/cpc-G05B.html>
 ...drawer [2013-01] G05B 2219/36157 . . . **Pendant** control box for handwheel control...part [2013-01] G05B 2219/36162 . . . **Pendant** control box [2013-01] ...

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Lookup Symbol
 e.g. A23F 5/04
 Scheme
 Search
 Search CPC
 Outline ON
 Display Level
 Color ON
 Curly Brackets ON
 References ON
 Date Revised OFF
 Path to

QUICK LINKS:
 PDF
 Scheme
 CPC-to-IPC

A44C 17/0266
 A44C 17/0275
 A44C 17/0283
 A44C 17/0291
 A44C 17/04
 A44C 17/043
 A44C 17/046
 A44C 19/00
 A44C 21/00
 A44C 23/00
 A44C 25/00
 A44C 25/001
 A44C 25/002
 A44C 25/004
 A44C 25/005
 A44C 25/007
 A44C 25/008
 A44C 27/00
 A44C 27/001
 A44C 27/002

(relatively or pivotally arranged)
 . . . (with means for maintaining a pivoted position)
 . . . (in an oscillating way)
 . . . (moving freely inside a setting)
 . . . (in the same plane)
 . . . (Setting-gems in jewellery; Setting-tools
 . . . (Setting-tools)
 . . . (Setting-gems in a plurality of non coplanar table top planes)
Devices for preventing pilfering of watches or jewellery
Coins (coins specially adapted to operate coin-free mechanisms
 G07F 1/06); **Emergency money; Beer or gambling coins or tokens, or the like**
Rosaries
Miscellaneous fancy ware for personal wear, e.g. (pendants,) crosses, crucifixes, charms ((suspension loops or rings A44C 3/008; settings for holding gems or the like A44C 17/02))
 . (Pendants)
 . . . (forming a container, e.g. for pictures)
 . . . (with articulated faces)
 . (Crosses or crucifixes)
 . (Charms or amulets)
 . (Jewellery worn on collars, e.g. on shirts (brooches A44C 1/00))
Making jewellery or other personal adornments
 . (Materials for manufacturing jewellery)
 . (Metallic materials (A44C 27/006 takes precedence))

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Searching using Current CPC Classification

***No spaces!**

***Search 1790 to present**

CPC/A44C25:004: 92 patents.
Hits: 1 through 50 out of 92

Final 42 Hits

Jump To:

Refine Search: CPC/A44C25:004

PAT. NO.	Title
1 10.863.786	Components of a neckwear
2 10.820.641	Take-apart hinge
3 10.603.238	System for delivering and relinquishing memories
4 10.602.815	Jewelry device and assembly
5 10.568.372	Neckwear for displaying coins, medals or bars with display inserts
6 10.555.570	Neckwear for displaying coins, medals or bars
7 10.333.575	System and method for displaying digital imagery on a digital imagery display locket
8 10.172.400	Neckwear for displaying coins, medals or bars
9 10.136.689	Neckwear for displaying coins, medals or bars
10 10.080.399	Buckle locket
11 10.070.706	Openable pendant for the containment of ashes, fragrances, flavours and/or similar
12 9.804.571	Accessory adapter system for wearable computing device
13 9.754.556	Electronic display locket and system
14 9.510.652	Picture creation method on a locket
15 9.460.688	Electronic display locket and system
16 9.398.792	Replaceable decoration unit for an accessory
17 8.881.403	Process for producing openable photograph holders
18 8.015.673	Bolo style clasp with multi-purpose clip
19 7.813.116	Heart shaped structure with altering appearance
20 D553.045	Expandable locket
21 5.651.274	Locket
22 5.586.452	Jewelry with an integral hinge
23 4.984.683	Fine jewelry enclosing wearer identification and medical information therein
24 4.882.915	Combined locket and photo holder
25 4.581.904	Toy jewelry item with parts movable to a hidden position
26 4.343.104	Display of articles
27 3.618.338	63/19 220/315
28 3.327.818	63/19 40/492 40/1.6

Image Only

http://patft.uspto.gov

United States Patent and Trademark Office
An Agency of the Department of Commerce

Patent Full-Text Databases

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<< BOTH SYSTEMS >>

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PATENT APPLICATION FULL TEXT AND IMAGE DATABASE

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Data current through March 4, 2021.

Query [\[Help\]](#)

Term 1: "west virginia university" in Field 1: Assignee Name
 AND
 Term 2: in Field 2: All Fields

Select Refine Search AN/"west virginia university"

PUB. APP. NO.	Title
1 20200254447	MICROFLUIDIC CHIP AS A MODEL FOR BLOOD-TISSUE BARRIERS
2 20200199200	TARGETING TUMOR MICROENVIRONMENTS WITH RECOMBINANT PROKARYOTIC COLLAGEN-LIKE PROTEINS
3 20180171970	WIND TURBINE HAVING RELEASABLE VANES
4 20160016965	NOVEL MIXED .mu. AGONIST/.delta. ANTAGONIST OPIOID ANALGESICS WITH REDUCED TOLERANCE LIABILITIES AND USES THEREOF
5 20150361471	Production Of Lysergic Acid By Genetic Modification Of A Fungus
6 20140371465	1,2,3-Triazole Based Metal-Organic Framework as Photo-Active Materials


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(2 of 65)

United States Patent Application 20200199200
 Kind Code A1
 LUKOMSKI; Slawomir ; et al. June 25, 2020

TARGETING TUMOR MICROENVIRONMENTS WITH RECOMBINANT PROKARYOTIC COLLAGEN-LIKE PROTEINS

Abstract

A recombinant collagen-like protein comprising a binding domain having binding capacity for both extra domain A and extra domain B-containing variants of cellular fibronectin. Cancer may be treated BY administering the recombinant collagen-like protein to a patient.


Inventors: **LUKOMSKI; Slawomir**; (Morgantown, WV) ; **MCNITT; Dudley H.**; (Morgantown, WV)

Applicant: **Name** **City** **State** **Country** **Type**

WEST VIRGINIA UNIVERSITY Morgantown WV US

Assignee: **WEST VIRGINIA UNIVERSITY**

Family ID: 71098256
 Appl. No.: **16/725142**
 Filed: December 23, 2019


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Patents Trademarks IP Policy Learning and Resources

A patent for girls' empowerment
 Juliette Gordon Low, founder of the Girls Scouts of the USA, created a lasting organization for women's empowerment. [FULL STORY](#)

Find It Fast
 Quick links to applications and tools.

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- Patent Center | EFS-Web | Forms Patent filing
- Patent Center | Private PAIR | Public PAIR | Global Dossier Filing status
- Pay maintenance fees Pay or look up maintenance fees
- PTAB Patent Trial and Appeal Board
- Search assignment | Record assignment Search recorded assignment and record ownership changes
- MPEP | Classification Guides and manuals
- Fees and Payment Fee schedule and payment information
- Systems status Current and planned system outages

USPTO report examines the impact of Chinese government subsidies and other non-market factors on the recent rise in patent and trademark filings in China

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Public Patent Application Information Retrieval

16/725,142 TARGETING TUMOR MICROENVIRONMENT WITH RECOMBINANT PROKARYOTIC COLLAGEN-LIKE PROTEINS WVU 3024

Mail Room Date	Document Code	Document Description	Document Category	Page Count	PDF
02-12-2021	OA.POSTCARD	A courtesy postcard sent by USPTO to users who opt-in for e-Office Action	PROSECUTION	1	<input type="checkbox"/>
02-04-2021	CTNF	Non-Final Rejection	PROSECUTION	12	<input type="checkbox"/>
02-04-2021	EXIN	Examiner Interview Summary Record (PTOL - 413)	PROSECUTION	1	<input type="checkbox"/>
02-04-2021	892	List of references cited by examiner	PROSECUTION	1	<input type="checkbox"/>
02-04-2021	SRFW	Search information including classification, databases and other search related notes	PROSECUTION	1	<input type="checkbox"/>
02-04-2021	1449	List of References cited by applicant and considered by examiner	PROSECUTION	6	<input type="checkbox"/>
02-04-2021	NPL	Non Patent Literature	PROSECUTION	14	<input type="checkbox"/>
02-04-2021	NPL	Non Patent Literature	PROSECUTION	14	<input type="checkbox"/>
02-04-2021	NPL	Non Patent Literature	PROSECUTION	9	<input type="checkbox"/>
02-04-2021	NPL	Non Patent Literature	PROSECUTION	20	<input type="checkbox"/>
12-30-2020	ELC	Response to Election / Restriction Filed	PROSECUTION	1	<input type="checkbox"/>
12-30-2020	CLM	Claims	PROSECUTION	3	<input type="checkbox"/>
12-30-2020	REM	Applicant Arguments/Remarks Made in an Amendment	PROSECUTION	1	<input type="checkbox"/>
12-30-2020	N417	EF5 Acknowledgment Receipt	PROSECUTION	2	<input type="checkbox"/>
12-30-2020	WFFF	Fee Worksheet (SR06)	PROSECUTION	1	<input type="checkbox"/>

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Non Final Rejection

Office Action Summary	Application No.	Applicant(s)	
	16/725,142	LUKOMSKI et al.	
	Examiner	Art Unit	AIA (FITF) Status
	FRED REYNOLDS	1658	Yes

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 Dec, 2020.
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a) This action is **FINAL**. 2b) This action is non-final.

3) An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) Claim(s) 1-20 is/are pending in the application.
 5a) Of the above claim(s) 8-12 and 14-20 is/are withdrawn from consideration.

6) Claim(s) _____ is/are allowed.

7) Claim(s) 1-7 and 13 is/are rejected.

8) Claim(s) _____ is/are objected to.

9) Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Summary

- Classification can help you find items without keywords
- Determining CPC classification easier on Espacenet
- USPTO website allows classification searching and full text from 1976 to present
- Other functionality includes MPEP, Assignments, and Public PAIR



Questions?

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