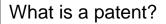


Patent Searching for FDL Librarians

FDLC Meeting and Conference October 17th, 2012

Dave Morrison Federal Government Information Patent and Trademarks Librarian dave.morrison@utah.edu Marriott Library University of Utah 801-585-6802





- A Patent is a property right granted by the United States to the original inventor(s) for a limited time in exchange for public disclosure of the invention.
- The Patent gives the inventor the [negative] right "to exclude others from making, using, offering for sale, or selling" the invention in the United States, or importing the invention into the United States.

Three types of patents

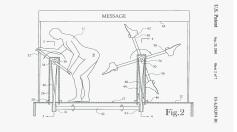
- Utility Patents Granted for a process; machine or manufacture; composition of matter; or an improvement thereof. Utility patents have sequential numbers.
- Design Patents Protects the new, ornamental design (i.e. "outward appearance") for an article of manufacture. Design patent numbers are preceded by the letter "D."
- Plant Patents granted on any distinct and new variety of an asexually reproduced plant. Plant patent numbers are preceded by "PP."

Patent Protection Terms

- Utility patent twenty years from nonprovisional patent filing date
- Design patent fourteen years from the issue date
- Plant patent twenty years from filing date

Once these terms expire, the invention is now 'public domain' and anyone may now use it without licensing!

Please Note! – Obtaining a patent does not guarantee commercial success!

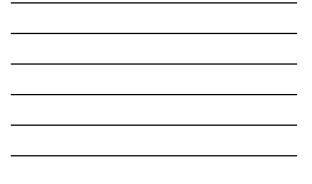


How do we start?

From the most specific to the more general:

- Start your search from a known piece of information a patent number, inventor name, company or university. Look at inventions that are similar to yours, and look at their classifications for similar inventions.
- Search the patent databases using likely keywords or combinations, and examine the resulting 'hits' for similarity; then look at the classifications on the most similar patents.
- Use the Patent Classification tools <u>http://www.uspto.gov/patents/resources/classification/index.jsp</u>

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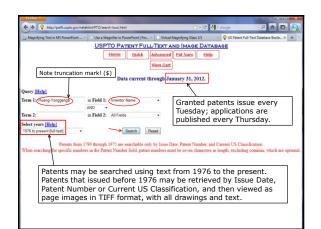




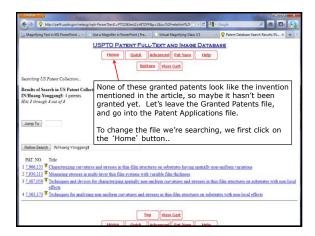


















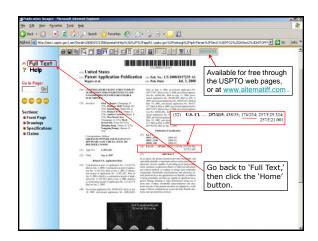
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Searching AppFT Database		The first three applications had not been granted				
Results of Search in AppFT Database for: IN/Huang-Yonggang\$: 6 applications. Hits 1 through 6 out of 6		patents by January 2012, when I captured this screen.				
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Refine Search	IN/Huang-Yonggang\$	advancement by the same inventor!				
PUB. APP. NO.	Title					
1 20110230747		DICAL DEVICES ON BIORESORBABLE SUBSTRATES				
3 <u>20080157235</u>	2 2010002402 Stretchable and Foldable Electronic Devices 3 2008015725 CONTROLLED BUCKLING STRUCTURES IN SEMICONDUCTOR INTERCONNECTS AND NANOMEMBRANES FOR STRETCHABLE ELECTRONICS					
4 20070180919	Characterizing Curvatures : Variations	and Stresses in Thin-Film Structures on Substrates having Spatially Non-Uniform				
5 <u>20060276977</u>	Techniques and devices for substrates with non-local et					
6 <u>20050278126</u>	Techniques for analyzing n effects	on-uniform curvatures and stresses in thin-film structures on substrates with non-local				

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United States Patent Application Kind Code Rogers; John A. ; et al.		published applications, but your computer must be able to display TIFF graphic files from within the web browser.	20080157235 A1 July 3, 2008
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In an aspect, the		ides stretchable, and optionally printable, components such as semiconductors and electronic circu tched, compressed, flexed or otherwise deformed, and related methods of making or tuning such st	tretchable
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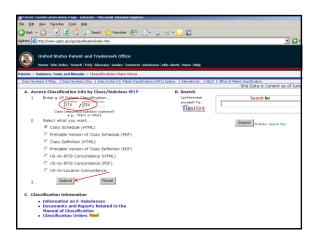


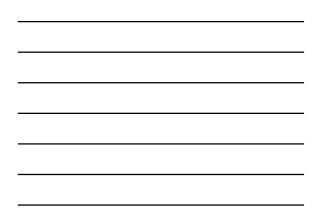












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		37	UNDERGROUND	subclass.
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A	12	47	COMBINED FLUID CONDUIT AND ELECTRICAL	CONDUCTOR
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CLASS 174 ELECTRICITY: CONDUC	TORS AND INSULATO	RS	
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SECTION I - CLASS DEFINITION			
 This class is for inventions relating to the structure supporting, encasing in conduits, and/or housing the structure 		nsulators and insulators and t	he apparatus specialized to mo
Conductors may be bare or be encased in insulation plurality of conductors associated together to form a c		ral strand, may be of single o	conductor form or there may be
 Since all materials that have the property of being a those structures that are specially designed to conduct 			
 Insulators are placed here when the structure there electrical potential from each other or for spacing one 			cing two or more devices of dif
 Since all materials which are poor conductors of ele whose proximate purpose is that stated in the precedi 			ical insulators, only those struc
6. Conduits are placed in this class only when some ch fact, claimed or unclaimed, that the conduit is made o systems and components are classified elsewhere. See	electrically conductive and/	or insulative material, will not	
SECTION II - LINES WITH OTHER CLASSES AND	WITHIN THIS CLASS		
 Housings (boxes, receptacles, containers, etc.) are the material of which the box or housing is composed Receptacles, below. To be classified in this class, the c that the box or housings include an electrical device, r is recited which limits the box or housings to electrical 	s conductive, and/or insulati aims must include some stru acited by name only, is suffic	ve, will not cause classificatio acture which limits the box or ient to cause classification in	n in this class. See D, Housing, housings to electrical use. The this class even though no othe

mere naming of the type of lam ither will the recitation of an eleclaimed as a filament, anode, grid

envelopes. Where such subject matter is otherwise properly within the being the device within the housing or envelope will not exclude the pa within the housing or envelope exclude the patient from this class althout within the housing or envelope exclude the patient from this class althout the housing or envelope exclude the patient from this class althout the housing or envelope exclude the patient from the class althout the housing or envelope exclude the patient from the second term the housing or envelope exclude the patient from the second term the housing term term

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SECTION III -	SUBCLASS REFERENCES TO THE CURRENT CLASS
SEE OR SEARCH	H THIS CLASS, SUBCLASS:
8+,	where the envelope is provided with means peculiarly adapted for use in connection with a vacuum, gas or fluid (but no gas filling where no structure peculiarly adapted for use with a vacuum or fluid except the hermetic seals is claimed.
9,	where the structure includes a current conductive fluid (e.g., a liquid used as a part of the lead-in structure) or where continuously evacuated to reduce leakage of air or gas).
15.1,	where the envelope or housing has combined therewith means for feeding, circulating or distributing a fluid including me therein where the cooling means involves the use of a fluid.
17+.	for the miscellaneous envelopes, boxes and housings under subclass 8.
17.05+,	for the miscellaneous hermetically sealed envelopes and housing within the definition of subclass 8 (including housings form the hermetic seal).
31+,	for structures under subclass 8 which are bushings or other devices for insulating a conductor or object from a wall or
37,	and indented subclasses for underground installations.
50,	and indented subclasses for other boxes and housings, and the notes thereunder.
50+,	for miscellaneous boxes and housings.
50.5+,	for the miscellaneous hemetically sealed envelopes and housings in this class, including those provided with lead-in wir the housing.
137,	see the notes to this subclass, and the subclasses thereunder for devices for electrically insulating one or more conduc structure or ground.
151+,	for devices (e.g., bushings) for insulating a conductor from a wall or plate (such as a metallic envelope wall) through w to metal seal.
350	through 397, for such envelopes and housings provided with an electric shield which wholly or partially surrounds the er the housing or a part thereof from electromagnetic or electrostatic effects.
480	through 507, for wall-mounted housings.
SECTION IV	REFERENCES TO OTHER CLASSES

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SECTION IV	REFERENCES TO OTHER CLASSES
SEE OR SEAR	H CLASS:
19,	Textiles: Fiber Preparation, (see Lines With Other Classes, "Miscellaneous," above.)
26,	Textiles: Cloth Finishing, (see Lines With Other Classes, "Miscellaneous," above.)
28,	Textiles: Manufacturing, (see Lines With Other Classes, 'Miscellaneous,' above.)
29,	Metal Working, for processes and apparatus for making wire and filaments regardless of the material used. Included are pr operation; see subclasses 400.1+, especially subclass 460 where conductor parts are assembled and then coated, subcla the conductor strands, and subclasses 527.1+ where a coating operation is involved. (See Lines With Other Classes, Miscc
52,	Static Structures (e.g., Buildings), subclass 40 for a residual mast or tower with an article support structure, having no c "Miscellaneous").
52,	Static Structures (e.g., Buildings), subclasses 220.1+ for a service duct within a barrier wherein a feature limited to elec
57,	Texbles: Spinning, Twisting, and Twining, takes processes and/or apparatus for making conductors by operations within t apparatus and/or process is also claimed. Patents claiming only conductor structure are in this class (1/4), Class 57 taking twined form not limited by the claims to being conductors. (Lines With Other Classes, "Miccallaneous").
66,	Textiles: Knitting, (see Lines With Other Classes"Miscellaneous," above.)
72,	Metal Deforming, takes a process or an apparatus for making or reshaping a wire by a mere plastic metal working operatio
87,	Textiles: Braiding, Netting, and Lace Making, (see Lines With Other Classes, "Miscellaneous," above.)
104,	Railways, subclass 140, and indented subclasses. (Lines With Other Classes, "Conduits").
106,	Compositions: Coating or Plastic, appropriate subclasses for compounds and compositions which are dielectrics, and their
118,	Coating Apparatus, takes apparatus for coating conductors. (Lines With Other Classes, "Miscellaneous").
136,	Batteries: Thermoelectric and Photoelectric, (see Lines With Other Classes, "Conductors and Electrical Systems").
138,	Pipes and Tubular Conduits, for conduit structures even though claimed as electrical conduits and/or claimed as made of appended to the definitions. (See Lines With Other Classes, *Conduits,* above.)
139,	Textiles: Weaving, (see Lines With Other Classes, "Miscellaneous," above.)
156,	Adhesive Bonding and Miscellaneous Chemical Manufacture, subclasses 47+ takes methods of making indefinite length ele 'Miscellaneous').
178,	Telegraphy, subclass 45 for wave transmission systems having loaded cable structures. (See Lines With Other Classes, "C
187,	Elevator, Industrial Lift Truck, or Stationary Lift for Vehicle, subclasses 277+ for an electrical control system for an eleva

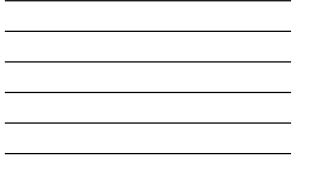
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- 1	A		68.1	CONDUITS, CABLES OR CONDUC	CTORS			
	A	8	68.2	- Bus bars or bus ducts (Residual)				
	A		68.3	 Single duct conduits 				
-	A	P	250	 Preformed panel circuit arrangen 	nent (e.g., printed circuit)			
	A		251	·· With encapsulated wire				
	A		252	·· With cooling means				
	A	R.	253	·· Micropanel				
	A	8	(254)	·· Convertible shape (e.g., flexible) o	or circuit (e.g., breadboard)			
	A	P	255	··· With particular substrate or suppo	ort structure			
	А		256	··· With particular material				
	A		260	··· With electrical device				
+			261	·· With particular conductive conner	ction (e.g., crossover)			
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CLASS 174, ELECTRICITY: CONDUCTO	RS AND
INSULATORS	
68.1 CONDUITS, CABLES OR CONDUCTORS:	
250 . Preformed panel circuit arrangement (e.	
254 Convertible shape (e.g., flexible) or circle	cuit (e.g., breadboard):
24	
Print This Page Show Definition View Close	
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	First we're shown the hierarchy of the dotted
	lines starting with subclass 68.1, the mainline.
0	
8 WITH FLUIDS OR VACUUM	Now we click on the 'Show Definition View'
ANTI-INDUCTIVE STRUCTURES	button to display full definitions for each line in
M 37 UNDERGROUND	the hierarchy.
A 40R OVERHEAD	the meralicity.
A 46 HANDLES A 47 COMBINED ELUID CONDUIT AND EL	
47 COMBINED FLUID CONDUIT AND EL 480 WALL MOUNTED	ECTRICAL CONDUCTOR
BOXES AND HOUSINGS	
EEDTHROUGH OR BUSHING	
66 COVERS OR FACE PLATES	
CONDUITS, CABLES OR CONDUCTOR GRANT CONDUCTOR	RS
Bus bars or bus ducts (Residual)	
Single duct conduits	
A 250 · Preformed panel circuit arrangeme	ent (e.g., printed circuit)
251 ··· With encapsulated wire 252 ··· With cooling means	
253 Micropanel 254 Convertible shape (e.g., flexible) or	simult (e.e., breadbeard)
- Convertible shape (e.g., flexible) or	circuit (e.g., preadboard)
	- Unannaer



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* *	Class D	Selendar for Cass 174 - BLECTRE. +							
	254	Convertible shape (e.g., flexible) or circuit (e.g., breadboard): This subclass is indented under subclass 29. Subject matter wherein the structure is either easily bent without breaking or has means to assily change its conductor circuit configuration. (1) Note. Terms that are somewhat synonymous with "breadboard" are "prototype" and "universal board".							
		SEE OR SEARCH CLASS:							
		 Electricity: Electrical Systems and Devices, subclass 398 for flexible printed circuits which include plural, diverse electrical devices. 							
	255	With particular substrate or support structure: This subclass is indented under subclass 280. Subject matter including a material means distinguished by significant construction or configuration which provides a supporting surface for other materials, especially materials used as printed-dircuits patterns.							
	256	With particular material: This subclass is indented under subclass 250. Subject matter wherein at least a part of the circuit board structure is composed of one or more specific substances.							
	257	Conducting (e.g., ink): This subclass is indented under subclass 256. Subject matter including a material adapted to the transmission of electricity. (1) note: The conducting material may be for example superconducting, semiconducting or resistive.							
	258	Insulating: This subclass is indented under subclass 256. Subject matter including a material on or through which essentially no electrical current will flow.							
	259	Adhesive-bonding: This subclass is indented under subclass 256. Subject matter including a material which causes parts of the structure to stick, bind or faster together.							
		SEE OR SEARCH THIS CLASS, SUBCLASS:							
		263. for soldered feed through connections where the composition of the solder is nominal.							

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Class 174 ELECTRICITY: CONDUCTORS AND INSULAT	You are viewing a USPC Scher	dule.
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	or more dots contracted underneath them.	
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MISCELLANEOUS LIGHTNING PROTECTION G G 4R AR TERMINALS SR ELECTRIC SHOCK HAZARD PROTEC	TIVE DEVICES	Ì
0 9 6 EARTH GROUNDS 0 9 8 WTH FLUIDS OR VACUUM 0 9 32 ANTI-INDUCTIVE STRUCTURES 0 9 37 UNDERGROUND 1 9 48 OVERHEAD 1 9 46 HANDLES 1 9 46 CONDUCTS	When we would like to examine all patents and/or applications within a given classification, we may click on the 'P' and 'A' icons to retrieve them all.	
0 9 480 WALL MOUNTED 0 9 BOXES AND HOUSINGS 1 9 60 FEEDTHROUGH OR BUSHING 1 9 60 COVERS OR FACE PLATES 1 9 60 COVERS OR FACE PLATES 1 9 61 CONDUTS, CABLES OR CONDUCTO 1 9 68.2 Bus bars per les duts (Residual)	PP5	

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Patent Database Search Results: CCL/17 +		
Searching US Patent Collection		
Results of Search in US Patent Collecti CCL/174/254: 1140 patents.	on db for:	
Hits I through 50 out of 1140	Here are all the granted patents in class/subclass 174/254 back to 1790:	
Next 50 Hits	Feb 2010 – 992 patents;	
Jump To	Feb 2011 – 1059 patents;	
	Feb 2012 – 1140 patents;	
Refine Search CCL/174/254	Note the increasing rate of change!	
PAT. NO. Title		
1 8,107,248 T Flexible device, flexible	pressure sensor	
2 8,106,408 T Optical semiconductor de		
	lisplay device including the same, and manufacturing method thereof	
4 8,106,307 T Substrate structure and e		
5 8,106,304 Mounting structure of ele	ectronic component	
6 8.101.863 T Printed circuit board		
7 8.097.812 Flexible pixel array subs		
	ing module with anti-EMI function and flexible thin PCB module with anti-EMI function	1
9 8.093.502 Flex-rigid wiring board a		
	semiconductor memory module using the same structure and method of fabricating same	

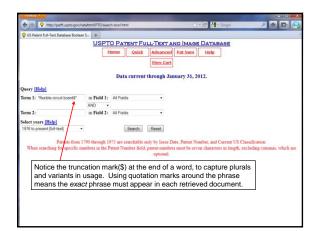


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	Publication Da		Inventor Name	Assignee			
7576992	2009-08-18	Flexible printed circuit and display	dovic+Chen, Chien-liang (Yuniin C	ou Au Optronics Corp. (Hsinchu	(TW)		
8148642	2012-04-03	Printed circuit board and method for					
7542297	2009-06-02	Optimized mounting area circuit mo				.)	
5315071	1994-05-24	Line branching printed circuit boar	d for »Tanimichi, Akihiro (Minamiti	Rep Fanus Ltd. (Minamitsuru, JP))		
4851613	1989-07-25	Flexible circuit laminate for surface			on NH)		
R003892	2011-08-23	Print circuit substrate and connecti					
7851707	2010-12-14	Circuit board and method for manu					
7915538	2011-03-29	Multilayer wiring board and its man			d Yokohama	, JP)	
3267407	1966-08-16	Programmable matrix		OD HEWLETT PACKARD CO			
2008580	2011-08-30	Flexible printed circuit board	Hsu, Shou-kus (Tarper Hsie	n. Hon He Precision Industry C	D Ltd. (Tu-C	heng, New Tai	per
8013255	2011-09-06	Printed circuit board with high dens					
8022309	2011-09-20	Flexible printed circuit board	Pai, Yu-chang (Taiper Hsier	Hon Hai Precision Industry C	Ltd. (Ju-C	heng, New Tar	per
7705380	2010-08-31	Flexible printed wiring board		Jelbiden Co , Ltd (Gifu, JP)			
7423219	2008-09-09	Flex-rigid wiring board		P)>Ibiden Co., Ltd. (Ogako-shi, J			
7855929	2010-02-02	Flex-rigid wiring board		P)>Ibiden Co., Ltd. (Ogalo-shi, J			
7982135	2011-07-19	Flex-rigid wiring board and method					
8188371	2012-05-29	***WITHDRAWN PATENT AS PER					in.
1525047	2009-04-28	Cable having translucent, semi-tran	ispare Iben, Icko E. T. (Santa Clar	 International Business Machine 	nes Corporati	on (Armonk, N	Υ. Ι
7301104	2007-11-27	Double-sided flexible printed circuit		JP) J.S.T. Mfg. Co., Ltd. (Osaka,			
7245500	2007-07-17	Circuit board having signal lines ad					
7977577	2011-07-12	Multi-lever flexible printed circuit bo					
5777275	1998-07-07	Bendable circuit board having impr				JP)	
5387126	1995-02-07	Configurable circuit substrate		 Motorola, Inc. (Schaumburg, 			
4742183	1988-05-03	Methods and techniques for fabrica				NY)	
8115103	2012-02-14	Flexible printed board, electronic a					
8119918	2012-02-21	Printed circuit board and semicond				-	
7679003	2010-03-16	Carrier tape		P) NEC Electronics Corporation		JP)	
5747743	1998-05-05	Col-shaped flexible printed circuit					
7501581	2009-03-10	Wired circuit board and producing					
7531753	2009-05-12	Suspension board with circuit		P>Nitto Denko Corporation (Osi			
7585046	2009-09-08	Wired circuit board		de Nitto Denko Corporation (Osi			
7649144	2010-01-19	Connection structure between wire		Nitto Denko Corporation (Osa			
7816669	2010-10-19	Wired circuit board	Kataoka, Kouji (Osaka, JP)	Nitto Denko Corporation (Osa	aka, JP)		
	2010-10-19 ble circuits	Wired circuit board	Kataoka, Kouji (Osaka, JP)	Nitto Denko Corporation (Osi	aka, JP)		

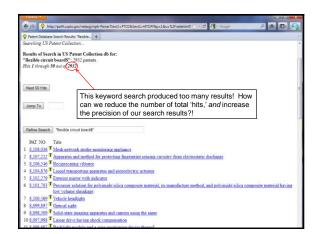


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Patent Database Search Results: CCL/17 +	-
129 1./15.204 Ultrasound probe wiring apparatus	*
130 7,715,200 Stacked semiconductor module, method of fabrication	
131 7.708.452 Lighting apparatus including flexible power supply	
132 7,701,726 Method of manufacturing a wiring substrate and set	miconductor device
133 7.701.722 Flexible printed wiring board	
134 7.697.305 Apparatus and method for enhancing conductivity	
135 7,696,441 Flexible wired circuit board	
136 7,696,005 Method for manufacturing an electronic module in	an installation base
137 7,692,102 Electronic circuit device	
138 7,690,104 Technique for reducing wasted material on a printee	d circuit board panel
139 7,688,594 TElexible printed circuit board	Looking through the patents and
140 7.679.003 Carrier tape	applications we retrieve by classification
141 7,674,984 Wiring board	searching, we often see new keyword
142 7,667,141 Flexible printed circuit layout and method thereof	
143 7,663,062 Flexible circuit board	phrases or word combinations to use for
144 7,660,126 Flexible printed circuit board	an additional search.
145 7,658,001 Electrical connector for disk drive suspension assen	nbly and method of non-contact solder attachment of same
146 7,655,869 T Flex-rigid wiring board	
147 7,652,890 Wired circuit board	
148 7,649,749 T Wiring substrate, semiconductor device, and metho	d of manufacturing the same
149 7.649.731 Power distribution module using buss bar	
150 7.649.144 Connection structure between wired circuit boards	
	1
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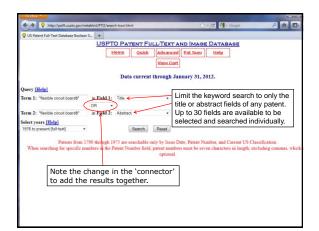














Patent Database Search Results: TTL/"fle	+
Searching US Patent Collection	
Results of Search in US Patent Collec TTL/"flexible circuit boardS" OR AF Hits 1 through 59 out of 346	tion db for: BST/"flexible circuit boardS": 346 patents.
	Restricting the fields searched produced much better results!
Next 50 Hits	Looking through 346 documents
	might take some time, but is still
Jump To	manageable.
PAT. NO. Title 1 8.094.257 Liquid crystal module	
	the second se
2 8,085,358 T Backlight module, appl	
2 8,085,358 T Backlight module, app 3 8,053,684 T Mounting structure and	method for mounting electronic component onto circuit board
2 8,085,358 T Backlight module, app 3 8,053,684 T Mounting structure and 4 8,049,857 T Liquid crystal display of	method for mounting electronic component onto circuit board
2 §.085.358 T Backlight module, app 3 8.053.684 T Mounting structure and 4 8.049.857 T Liquid crystal display of 5 8.042.445 Cutting mold for rigid- 6 8.035.789 Mounting structure, ele	å method for mounting electronic component onto curcui board device Anvible circuit board and method for forming the same etwo-settical device, input device, method of manufacturing mounting structure, and electronic apparatu
2 8.085,358 T Backlight module, app 3 8.053,684 T Mounting structure and 4 8.049,857 T Leguid crystal display. 5 8.042,445 C Cutting mold for right 6 8.052,789 T Meunting structure, elv 7 8.029,73 T Intra-oral whiteming de	I method for mounting electronic component onto carcuit board dexist flexible circuit board and method for forming the same struc-strict dexiste, must dexiste, method of manufacturing mounting structure, and electronic apparatu Sizie
2 3.055.358 Backlight module, apply 3 9.053.054 Mounting structure and Liquid crystal display. 5 8.042.445 Coming mold for rigid- Generative and the structure, etc. 6 8.045.780 Meanting structure and Intra-onal whitemand de 8.025.327 8 0.022.478 Intra-onal whitemand Heat sinking and flexib	I method for mounting electronic component onto carcuit board device Health Health curcuit board and method for forming the same estro-optical device, input device, method of manufacturing mounting structure, and electronic apparatu trigge devicuit board, for solid state labit forture utilizing an optical cavity
2 3.055.358 Backlight module, apply 3 9.053.054 Mounting structure and Liquid crystal display. 5 8.042.445 Coming mold for rigid- 6 6 8.045.780 Mounting attructure, and Mounting attructure, and 8.025.273 6 8.035.780 Mounting attructure, and Mounting attructure, and 8.025.327 9 8.027.877 Intra-onal whitemand de store	I method for mounting electronic component ento carcuit based dense dense factors based and method for forming the same estro-seried device, apput device, method of manufacturing mounting structure, and electronic apportant science based, for asled same halth future unliking an optical every de circuit device for device K-substante and structure thereof



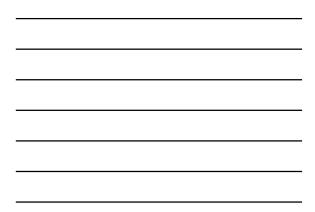
Make Sure to Search in Both the Granted Patents (PatFT) and Published Applications (AppFT) Databases!

- Applications that have been published often have different claims from the patents that are eventually granted
- There are published applications that were never granted, but are now *prior art* and may not be granted to another inventor

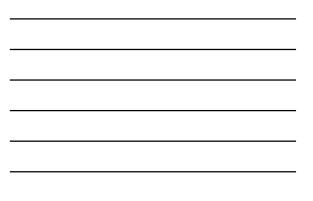




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Results of Search in AppFT Dat: CCL/174/254: 532 applications.	abase for:
Hits 1 through 50 out of 532	All 'Published Applications' from March 2001 to
	February 2012:
Next 50 Hits	February 2008 - 151
	February 2010 - 301 (two year interval)
Jump To	February 2011 - 413
	February 2012 - 532
Refine Search CCL/174/254	Once again, note the positive rate of change!
PUB. APP. Title	
NO. Ittle	
1 20120024577 POLYAMIDE	FILMS FOR FLEXIBLE PRINTED CIRCUIT BOARDS
2 20120024576 BUNDLED FL	EXIBLE CIRCUIT BOARD BASED FLAT CABLE WITH WATER RESISTANT SECTION
	R MANUFACTURING MULTILAYERED FLEXIBLE CIRCUIT BOARD
	ARRAY TRANSDUCER, ASSOCIATED CIRCUIT AND METHOD OF MAKING THE SAME
	TLE METAL FOIL LAMINATE AND METHOD FOR PRODUCING THE SAME
	INTED CIRCUIT BOARD WITH WATERPROOF STRUCTURE
7 20120012369 CIRCUIT BOA	
	WIRING BOARD AND METHOD FOR MANUFACTURING THE SAME
	ate and Flexible Electronic Circuit Board Formed by using the same CID, POLYIMIDE, PHOTOSENSITIVE RESIN COMPOSITION COMPRISING THE SAME, AND
	ANUFACTURED FROM THE SAME
	R VIA STRUCTURE
	GAP FILLING COMPOSITION AND ELECTROSTATIC DISCHARGE PROTECTOR
12 20120006583 DISCHARGE	



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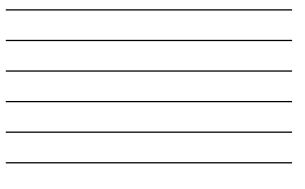
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Refine Search	TTL/"flexible circuit board\$" OR ABST/"flexible circuit	
PUB. APP. NO.	Title	
1 20120024576	BUNDLED FLEXIBLE CIRCUIT BOARD BASED FLAT CABL	E WITH WATER RESISTANT SECTION
2 20120021621	METHOD FOR MANUFACTURING MULTILAYERED FLEXIN	BLE CIRCUIT BOARD
3 20120007824	Capacitive touch panel	
4 20120002379	CIRCUIT BOARD STRUCTURE	
5 20120000104	LED STRIP FOR SMALL CHANNEL LETTERS	
6 20110296671	Display Modules and Methods of Fixing Flexible Circuit Boards T	herein
7 20110281119	and the second se	
8 20110280003		SIDED LIGHT EMITTING STRUCTURE
9 20110275248		
	Lens barrel and image-taking apparatus	
11 20110269321		
12 20110267534		
13 20110228490		
14 20110227846	5 TOUCH PANEL AND MANUFACTURING METHOD THEREF	OP



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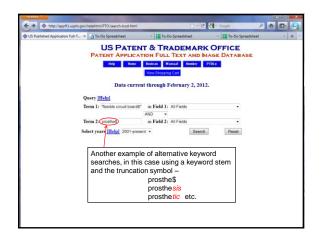


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Results of Search "flexible circuit I Hits 1 through 50	oardS" OR "	tabase for: stretchable electronic\$'	*: 3307 applications.		
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Refine Search	flexible circuit b	oard\$" OR "stretchable ele	ectronic\$"		
PUB. APP. NO.	Title				
1 20120029289	Optical Cap fi	or Use With Arthroscopi	c System		
2 20120029280	Arthroscopic	System			
3 20120026424	LIQUID CRY	STAL DISPLAY DEVI	CE INCLUDING BACKLIGHT UNI		
4 20120025836	POWER SUP	PLY DEVICE FOR DE	TECTING DISCONNECTION OF V	OLTAGE DETECTION LINES	
5 20120025705	LED BULB				
6 20120025405			COMPOSITION, SEMICONDUCTO SITION, AND METHOD OF MANU		
7 20120024576	BUNDLED F	LEXIBLE CIRCUIT BO	DARD BASED FLAT CABLE WITH	WATER RESISTANT SECTION	0
8 <u>20120023785</u>	Wireless remo	te controlled massaging	footwear system		
9 20120021663	REPAIR STR	UCTURE AND METH	OD FOR LIQUID CRYSTAL DISPLA	<u>NY</u>	
10 20120021621	METHOD FO	R MANUFACTURING	MULTILAYERED FLEXIBLE CIR	CUIT BOARD	
11 20120021234	LOW-THERM	AAL-EXPANSION BLC	OCK POLYIMIDE, PRECURSOR TH	EREOF, AND USE THEREOF	
12 20120020055	BACKLIGHT	MODULE			



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Results of Search in AppFT Database for: ABST,TTL/("flexible circuit boardS" OR "stretchable el Hits 1 through 50 out of 322	ectronic\$"): 322 applications.		
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Refine Search ABST.TTL/("flexible circuit board\$" OR "stretch	hable :		
PUB. APP. NO. Title			
1 20120024576 BUNDLED FLEXIBLE CIRCUIT BOA	RD BASED FLAT CABLE WITH	WATER RESISTANT SECTION	
2 20120021621 METHOD FOR MANUFACTURING M	ULTILAYERED FLEXIBLE CIR	CUIT BOARD	
3 20120007824 Capacitive touch panel			
4 20120002379 CIRCUIT BOARD STRUCTURE			
5 20120000104 LED STRIP FOR SMALL CHANNEL L	ETTERS		
6 20110296671 Display Modules and Methods of Fixing	Flexible Circuit Boards Therein		
7 20110281119 Adhesive composition			
8 20110280003 BACKLIGHT MODULE AND DISPLA	Y DEVICE WITH TWO-SIDED L	IGHT EMITTING STRUCTURE	
9 20110275248 TELECOMMUNICATION CONNECTO	R		
10 20110273788 Lens barrel and image-taking apparatus			
11 20110269321 CONNECTOR STRUCTURE			
12 20110267534 IMAGE SENSOR PACKAGE AND CAL	MERA MODULE USING SAME		
13 20110228490 LARGE CAPACITY MEMORY MODU	E MOUNTING DEVICE FOR R	OPTABLE TERMINAL	
	LE MOONTING DEVICE FOR P		



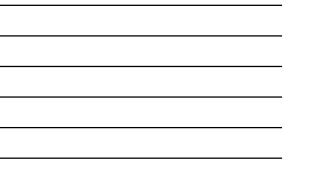




Some Basic Competitive Intelligence

- We may use the patent databases to identify some of the research interests, strengths and faculty of a particular institution or research facility.
- For example, let's look at published patent applications 'assigned to' (i.e., 'owned by') the University of Utah.



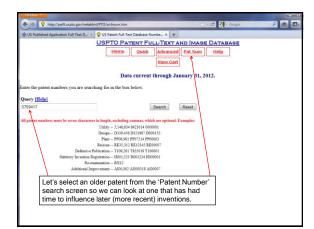


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Next 50 Hits		
Refine Search	AN/"University of Utoh"	8
PUB. APP. NO.	Title	
1 20120030779	COMPOSITIONS AND METHODS FOR DETECTING, TREATING, OR PREVENTING REDUCTIVE STRESS	
2 20120021968	METHODS FOR TREATING OR PREVENTING UROLOGICAL INFLAMMATION	
3 20120010535	SYSTEMS, DEVICES, AND METHODS FOR MONITORING AN UNDER FOOT LOAD PROFILE OF A PATIENT DURING A PERIOD OF PARTIAL WEIGHT BEARING	
4 20120010534	SYSTEMS, DEVICES, AND METHODS FOR MONITORING AN UNDER FOOT LOAD PROFILE OF A TIBIAL FRACTURE PATIENT DURING A PERIOD OF PARTIAL WEIGHT BEARING	
5 20120004666	STEERABLE SURGICAL SNARE	
6 20120004647	STEERABLE SURGICAL SNARE AND METHOD OF USE	
7 20110318738	IDENTIFICATION AND REGULATION OF A NOVEL DNA DEMETHYLASE SYSTEM	
8 20110306976	BONE PLATE AND KEEL SYSTEMS	
9 20110306581	STABLE PERFLUOROCARBON EMULSION FOR USE AS AN ARTIFICIAL OXYGEN CARRIER	
10 20110304329	LABELED PEPTIDES AND METHODS OF USE THEREOF FOR IMPROVED OXIDATION AND MAPPING OF DISULFIDE BRIDGES	
11 20110301438	DYE APPLICATION FOR CONFOCAL IMAGING OF CELLULAR MICROSTRUCTURE	
12 20110298802	MESH FORMATION FOR MULTI-FLEMENT VOLUMES	_



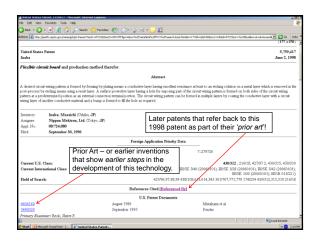
Changes in a given technology over time

Trace the development of a given technology over time by looking at the '*prior art*' and '*cited by*' links on the front page of U.S. patents.



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United State	es Patent: 5759417 +
	USPTO PATENT FULL-TEXT AND IMAGE DATABASE
	Home Quick Advanced Pat.Num Help
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	View.Cart Add to Cart
	Images
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United Stat	tes Patent 5,759,41
Inaba	Definitely 'an older invention!' June 2, 199
Flexible cir	rcuit board and production method therefor Abstract
metal layer v circuit wirinj circuit wirinj	reat wing pattern is formed by forming by plating means a conductive layer having excellent resistance at least to an etching solution on which is removed in the post-process by etching means using a resist layer. A author protective layer having a hole for exposing part of the platern is formed on boti soles of the curvaiving pattern at a protectomical position are notical constraints the pattern is not boti soles of the curvaiving pattern at a position of the curvaiving layer of another conductive material and a not fold the hole are meand.
Inventors:	Inaba; Masaichi (Ushiku, JP)
Assignce:	Nippon Mektron, Ltd. (Tokyo, JP)
	08/724.080
Appl. No.: Filed	September 30, 1996





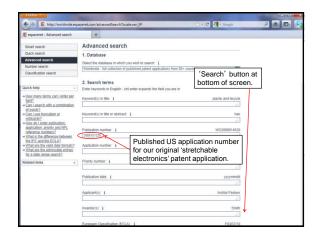


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	ver interconnection board, semiconductor device having the same, and method of forming the same as well as meth ng the semicondutor chip on the interconnection board
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	for manufacturing wiring circuit boards with bumps and method for forming bumps
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	circuit substrate with controlled placement covercoat layer
	es for manufacturing flexible wiring boards
	for manufacturing wiring circuit boards with bumps and method for forming bumps
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	I for fabricating a flexible printed circuit board with access on both sides
	circuit substrate with controlled placement covercoat layer
	Is for fabricating flexible circuit structures
	sed metal gasket and method of manufacturing the same
13 5,914,179 T Flexibl	e circuit board and production method therefor

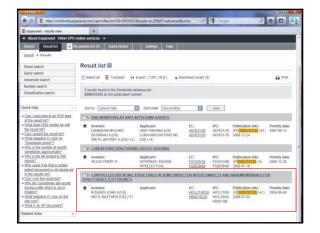
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INPADOC patent family	ETIENNE MENARD [US]	UNIV ILLINOIS	E02Y10/00 H01L21/02K4E3L5	B81C1/00 H01L21/00	CN101120433 (A) 2008-02-05	2004-06-04
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	ROGERS JOHN A	UNIV ILLINOIS IUSI	B81B3/0052Z B82Y10/00	H0187/05	CN101681695 (A) 2010-03-24	2006-09-06
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	11. METHODS AND DEVICES FOR FABRICATING AND ASSEMBLING PRINTABLE SEMICONDUCTOR ELEMENTS						
	*	Inventor:	Applicant:	EC: 882Y10/00 H01L218/2K4E3L5 (+4)	IPC: 881C1/00 H01L21/02 H01L21/329 (+13)	Publication info: .JP2008502151 (A) 2008-01-24	Priority date: 2004-06-04
	1	2. PRINTABLE SEMICON	NUCTOR STRUCTUR	ES AND RELATED MET	HODS OF MAKI	NG AND ASSEMBLING	
	*	inventor:	Applicant:	EC:	IPC: H01L21/02 H01L21/336 H01L21/338 (+5)	Publication info: JP2009508322 (A) 2009-02-26	Priority date: 2005-06-02
	133. CONTROLLED BUCKLING STRUCTURES IN SEMICONDUCTOR INTERCONNECTS AND NANOMEMBRANES FOR STRETCHABLE ELECTRONICS						
	*	Inventor:	Applicant:	EC: B81B3/0052Z B82Y10/00 (+11)	BPC: B81B3/00 H01L21/28 H01L21/288 (+11)	Publication info: JP2010503238 (A) 2010-01-28	Priority date: 2006-09-05
	14. PATTERN TRANSFER PRINTING BY KINETIC CONTROL OF ADHESION TO AN ELASTOMERIC STAMP						
	*	Inventor: NUZZO RALPH G [US] ROGERS JOHN A [US] (+6)	Applicant: UNIV ILLINOIS [US]	EC: B82Y1000 H01L21036D (+5)	IPC: H01L21/027	Publication info: KR20060125620 (A) 2006-12-06 KR100790431 (B1) 2008-01-28	Priority date: 2005-06-02
	15- METHODS AND DEVICES FOR FABRICATING AND ASSEMBLING PRINTABLE SEMICONDUCTOR ELEMENTS						
	*	Inventor: NUZZO RALPH G [US] ROGERS JOHN A [US] (+6)	Applicant: UNIV ILLINOIS [US]	EC: B82Y1000 H01L2102K4E3L5 (+4)	IPC: B81C1/00 H01L21/77 H01L27/12 (+4)	Publication info: KR20070037484 (A) 2007-04-04	Priority date: 2004-06-04

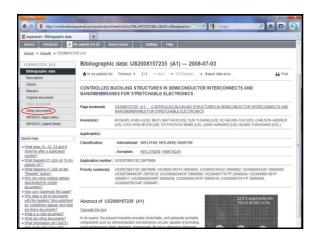


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INPADOC legal status	Inventor(s):	ROGERS JOHN A (US), MEITL MATTHEW (US), SUN YUGANG (US), KO HEUNG CHO (US), CARLSON ANDREW				
INPADOC patent family	[US]; CHOI WON MOOK [US]; STOYKOVICH MARK [US]; JIANG HANQING [US]; HUANG YONGGANG [US] ±					
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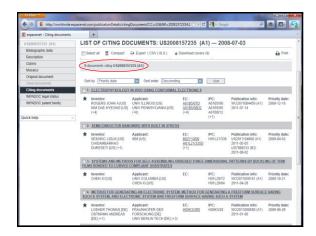


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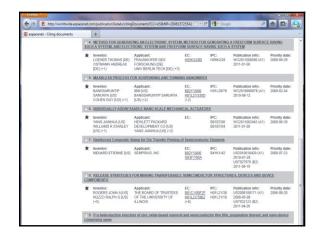














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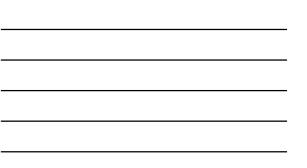
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