



## O'Connor & Company

### **O'Connor & Company Patent Proficiencies by U.S. Patent Classification**

A U.S. Patent Classification is a code which provides a method for categorizing an invention. Classifications are typically expressed as, for example, "482/1." The first number, 482, represents the class of invention. The number following the slash is the subclass of invention within the class. There are about 450 classes of invention and about 150,000 subclasses of invention in the United States Patent Classification (USPC) system. Classes and subclasses have titles which provide a short description of the class or subclass. Many classes and subclasses have explicitly defined relationships to one another.

The U.S. Patent Classification is at [www.uspto.gov/go/classification/selectnumwithtitle.htm](http://www.uspto.gov/go/classification/selectnumwithtitle.htm).

Practically speaking, the USPC represents a searchable collection of patents grouped together according to similarly claimed subject matter. Classification is used both as a tool for finding patents (e.g., patentability searches), and for assisting in the assignment of patent applications to USPTO examiners for examination purposes.

***Additionally, patent classification can assist inventors and companies in locating a suitable patent practitioner for representation before the USPTO. The following list comprises codes that identify subject matter for which we can competently assist clients in patent drafting, prosecution, and competitive analysis.***

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*"Intellectual-property strategy consulting and patent prosecution  
for the chemicals, materials, energy, and biotechnology industries"*

**U.S. Patent Bar Licenses 56692, 56693**

008 Bleaching and dyeing...

015 Brushing, scrubbing, and general cleaning

019 Textiles: fiber preparation

023 Chemistry: physical processes

024 Buckles, buttons, clasps, etc.

026 Textiles: cloth finishing

028 Textiles: manufacturing

029 Metal working

034 Drying and gas or vapor contact with solids

038 Textiles: ironing or smoothing

044 Fuel and related compositions

048 Gas: heating and illuminating

051 Abrasive tool making process, material, or composition

053 Package making

055 Gas separation

057 Textiles: spinning, twisting, and twining

060 Power plants

062 Refrigeration

065 Glass manufacturing

066 Textiles: knitting

068 Textiles: fluid treating apparatus

071 Chemistry: fertilizers

072 Metal deforming

073 Measuring and testing

075 Specialized metallurgical processes, compositions for use therein...

087 Textiles: braiding, netting, and lace making

091 Motors: expansible chamber type

092 Expansible chamber devices

095 Gas separation: processes

096 Gas separation: apparatus

101 Printing

106 Compositions: coating or plastic

110 Furnaces

117 Single-crystal, oriented-crystal, and epitaxy growth processes; non-coating apparatus...

118 Coating apparatus

122 Liquid heaters and vaporizers  
123 Internal-combustion engines  
126 Stoves and furnaces  
127 Sugar, starch, and carbohydrates  
134 Cleaning and liquid contact with solids  
136 Batteries: thermoelectric and photoelectric  
137 Fluid handling  
138 Pipes and tubular conduits  
139 Textiles: weaving  
141 Fluent material handling, with receiver or receiver coating means  
148 Metal treatment  
149 Explosive and thermic compositions or charges  
152 Resilient tires and wheels  
156 Adhesive bonding and miscellaneous chemical manufacture  
159 Concentrating evaporators  
162 Paper making and fiber liberation  
164 Metal founding  
165 Heat exchange  
169 Fire extinguishers  
174 Electricity: conductors and insulators  
177 Weighing scales  
184 Lubrication  
191 Electricity: transmission to vehicles  
196 Mineral oils: apparatus  
200 Electricity: circuit makers and breakers  
201 Distillation: processes, thermolytic  
202 Distillation: apparatus  
203 Distillation: processes, separatory  
204 Chemistry: electrical and wave energy  
205 Electrolysis: processes, compositions used therein, and methods...  
206 Special receptacle or package  
208 Mineral oils: processes and products  
209 Classifying, separating, and assorting solids  
210 Liquid purification or separation  
216 Etching a substrate: processes

219 Electric heating  
226 Advancing material of indeterminate length  
228 Metal fusion bonding  
236 Automatic temperature and humidity regulation  
237 Heating systems  
239 Fluid sprinkling, spraying, and diffusing  
241 Solid material comminution or disintegration  
250 Radiant energy  
251 Valves and valve actuation  
252 Compositions  
257 Active solid-state devices (e.g., transistors, solid-state diodes)  
260 Chemistry of carbon compounds  
261 Gas and liquid contact apparatus  
264 Plastic and nonmetallic article shaping or treating: processes  
266 Metallurgical apparatus  
307 Electrical transmission or interconnection systems  
310 Electrical generator or motor structure  
318 Electricity: motive power systems  
320 Electricity: battery or capacitor charging or discharging  
322 Electricity: single generator systems  
323 Electricity: power supply or regulation systems  
324 Electricity: measuring and testing  
326 Electronic digital logic circuitry  
327 Miscellaneous active electrical nonlinear devices, circuits, and systems  
329 Demodulators  
330 Amplifiers  
331 Oscillators  
332 Modulators  
333 Wave transmission lines and networks  
334 Tuners  
335 Electricity: magnetically operated switches, magnets, and electromagnets  
336 Inductor devices  
337 Electricity: electrothermally or thermally actuated switches  
338 Electrical resistors  
340 Communications: electrical

341 Coded data generation or conversion  
342 Communications: directive radio wave systems and devices (e.g., radar, radio navigation)  
343 Communications: radio wave antennas  
345 Computer graphics processing and selective visual display systems  
359 Optical: systems and elements  
361 Electricity: electrical systems and devices  
369 Dynamic information storage or retrieval  
372 Coherent light generators  
373 Industrial electric heating furnaces  
374 Thermal measuring and testing  
375 Pulse or digital communications  
376 Induced nuclear reactions: processes, systems, and elements  
377 Electrical pulse counters, pulse dividers, or shift registers: circuits and systems  
378 X-ray or gamma ray systems or devices  
381 Electrical audio signal processing systems and devices  
385 Optical waveguides  
392 Electric resistance heating devices  
398 Optical communications  
401 Coating implements with material supply  
414 Material or article handling  
416 Fluid reaction surfaces (i.e., impellers)  
417 Pumps  
418 Rotary expansible chamber devices  
419 Powder metallurgy processes  
420 Alloys or metallic compositions  
422 Chemical apparatus and process disinfecting, deodorizing, preserving, or sterilizing  
423 Chemistry of inorganic compounds  
424 Drug, bio-affecting and body treating compositions  
425 Plastic article or earthenware shaping or treating: apparatus  
426 Food or edible material: processes, compositions, and products  
427 Coating processes  
429 Chemistry: electrical current producing apparatus, product, and process  
430 Radiation imagery chemistry: process, composition, or product thereof  
431 Combustion  
432 Heating

435 Chemistry: molecular biology and microbiology  
436 Chemistry: analytical and immunological testing  
438 Semiconductor device manufacturing: process  
439 Electrical connectors  
442 Fabric (woven, knitted, or nonwoven textile or cloth, etc.)  
460 Crop threshing or separating  
493 Manufacturing container or tube from paper; or other manufacturing from a sheet or web  
501 Compositions: ceramic  
502 Catalyst, solid sorbent, or support therefor: product or process of making  
504 Plant protecting and regulating compositions  
505 Superconductor technology: apparatus, material, process  
506 Combinatorial chemistry technology: method, library, apparatus  
507 Earth boring, well treating, and oil field chemistry  
508 Solid anti-friction devices, materials therefor, lubricant or separant compositions...  
510 Cleaning compositions for solid surfaces, auxiliary compositions therefor...  
512 Perfume compositions  
514 Drug, bio-affecting and body treating compositions  
516 Colloid systems and wetting agents; subcombinations thereof; processes of  
518 Chemistry: fischer-tropsch processes; or purification or recovery of products thereof  
520 Synthetic resins or natural rubbers -- part of the class 520 series  
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530 Chemistry: natural resins or derivatives; peptides or proteins; lignins or reaction products...  
532 Organic compounds -- part of the class 532-570 series  
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568 Organic compounds -- part of the class 532-570 series  
570 Organic compounds -- part of the class 532-570 series  
585 Chemistry of hydrocarbon compounds  
588 Hazardous or toxic waste destruction or containment  
700 Data processing: generic control systems or specific applications  
701 Data processing: vehicles, navigation, and relative location  
702 Data processing: measuring, calibrating, or testing  
703 Data processing: structural design, modeling, simulation, and emulation  
704 Data processing: speech signal processing, linguistics, language translation...  
705 Data processing: financial, business practice, management, or cost/price determination  
706 Data processing: artificial intelligence  
707 Data processing: database and file management or data structures  
708 Electrical computers: arithmetic processing and calculating  
709 Electrical computers and digital processing systems: multicomputer data transferring  
710 Electrical computers and digital data processing systems: input/output  
711 Electrical computers and digital processing systems: memory  
712 Electrical computers and digital processing systems: processing architectures...  
713 Electrical computers and digital processing systems: support  
714 Error detection/correction and fault detection/recovery  
715 Data processing: presentation processing of document, operator interface processing...  
716 Data processing: design and analysis of circuit or semiconductor mask  
717 Data processing: software development, installation, and management  
718 Electrical computers and digital processing systems...  
719 Electrical computers and digital processing systems...  
720 Dynamic optical information storage or retrieval  
726 Information security

800 Multicellular living organisms and unmodified parts thereof and related processes  
903 Hybrid electric vehicles (hevs)  
930 Peptide or protein sequence  
976 Nuclear technology  
977 Nanotechnology  
987 Organic compounds containing a Bi, Sb, as, or P atom...  
D05 Textile or paper yard goods; sheet material  
D09 Packages and containers for goods  
D10 Measuring, testing, or signalling instruments  
D13 Equipment for production, distribution, or transformation of energy  
D23 Environmental heating and cooling; fluid handling and sanitary equipment  
D24 Medical and laboratory equipment

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