

MATERIALS SCIENCES, CHEMICAL AND ENGINEERING TEAM

Vorys materials science IP patent team has scientific and legal backgrounds to support our clients' materials science, chemical, and engineering needs and maximize the commercial value of their inventions. We work with our clients to develop unique ways to characterize and describe their innovations and develop patent portfolios that provide full protection to such innovations. Whether the technology involves polymers, sealants, ceramics, composites, adhesives, or any other material usages, we bring the right interdisciplinary strengths to the project. In particular, our team has strong nanotechnology experience. For example, our team has worked with graphene, quantum dots, carbon nanotubes, "buckyballs," and ultra-nanocrystalline diamond films.

In short, our team has the industry knowledge, legal skills, and technical insight to provide significant value to clients whose mission involves developing advanced materials, novel chemistries, and engineering innovations that enable product improvements and create entire new product categories.

A brief listing of our experience includes:

Materials Science Experience

- Polymers and polymer composites
- Metallurgy
- Biomaterials
- Semiconductors
- Integrated circuits
- Optics
- Ceramics
- Nanotechnology and photonics
- Fibers and textiles
- Surfaces and interfaces
- Coatings and paints
- Films and packaging
- Personal care products and cosmetics

Chemicals Experience

- Biochemistry
- Chemical engineering
- Food and beverage chemistry
- Organic chemistry
- Inorganic chemistry
- Nanoparticle synthesis and functionalization
- Corrosion chemistry
- Electrochemistry
- Recycling, purification, and refining
- Pharmaceutical chemistry
- Physical chemistry
- Polymer chemistry
- Catalysis

Mechanical Experience

- Automotive
- Aviation
- Commercial building structures
- Residential building structures
- Compressors
- Pumps
- Engines
- Oil and gas tools and equipment
- Heating and cooling systems
- Medical devices
- Immunodiagnostic devices
- Renewable energy tools and equipment
- Robotics



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Carey Jordan: Carey is a partner and patent veteran with nearly two decades of experience handling patent prosecution matters, patent challenges, litigation, and intellectual property counseling related to chemical arts. From refining to specialty chemicals to polymers and plastics, Carey has dealt with the gamut of intellectual property issues facing large companies. Her forte is managing global patent portfolios efficiently and cost-effectively in alignment with her clients' business goals. She is considered by clients to be responsive, talented, and a creative, out-of-the-box thinker in addressing the clients' needs. Carey received her J.D. from the University of Houston Law Center, and her M.S. and B.S. in Chemistry from Clemson University.



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D. Jeremy Harrison: Jeremy is a partner in the Houston office and advises clients on intellectual property matters, including patent and trademark law. Jeremy has experience preparing and prosecuting foreign and domestic patent applications in the mechanical, electrical, computer, and chemical fields. Jeremy received his J.D. *cum laude* from Franklin Pierce Law Center and his B.S. in Mechanical Engineering from Brigham Young University.



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Iona Kaiser: Iona is a partner and has over 20 years of experience first as a chemical engineer and then a patent attorney. Iona has years of experience managing global patent portfolios to promote consistency of world-wide prosecution while harnessing efficiencies across the scope of the portfolio. She received her B.S. in Chemical Engineering from the Virginia Polytechnic Institute and State University and worked for five years as a process control engineer at a chemical processing facility focused on acetyls and ethylene oxides and their derivatives before attending law school. She received her J.D. *magna cum laude* from the University of Houston Law Center.



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Mihsun Koh: Mihsun is a partner in the Vorys Washington, D.C. office and has extensive experience in drafting and prosecuting U.S. and foreign patents in the fields of biotechnology, pharmaceuticals, pharmacognosy, chemistry, chemical materials, nanotechnology, polymers and green technology. Mihsun received an LL.M. from the Georgetown University Law Center. She also received an LL.M. in IP Law from the Yonsei University Graduate School of Law and a B.S. in Pharmacy from the Seoul National University in Seoul Korea.



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Michael Messinger: Mike is a partner in the Vorys Washington, D.C. office. He helps clients harvest innovation, protect products and services, and monetize or defend patent portfolios. Throughout his career, Mike has helped clients create IP strategies for protection and to enhance their freedom-to-operate in computer, electronics, and sustainable technologies. He routinely works with company officers and engineers to identify patentable inventions and build strategic patent portfolios. Mike has deep experience prosecuting U.S. and international patent applications. Mike received his J.D. from the Georgetown University Law Center and his B.S., *magna cum laude*, in Physics from Duke University.



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Khaled Shami: Khaled is a partner in the Vorys Washington, D.C. office. He has a bachelor's degree in electrical engineering and has worked as a patent examiner in the U.S. Patent and Trademark Office. He also spent more than 20 years in Silicon Valley counseling tech companies of all sizes and nationalities in building and monetizing their U.S. and international IP portfolios. He received his B.S. in Electrical Engineering from the University of Maryland and J.D. from Southwestern University School of Law.



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Anthony Venturino: Anthony is a partner in the Vorys Washington, D.C. office. He has prepared numerous U.S. and PCT patent applications, trademark applications and opinions. He has also participated in major intellectual property litigation, post grant proceedings at the US Patent Office, as well as oppositions and cancellations at the US Trademark Office. He is responsible for complex activities including negotiating and drafting agreements, conducting due diligence for multi-million dollar technology acquisitions and counseling senior management on intellectual property issues. Prior to joining Vorys, Anthony served as patent counsel for the U.S. Surgical Corporation and was a chemical engineer with Exxon. Anthony's fields of technical experience includes chemistry, catalysts, oil, gas and coal processing, metallurgy, surfactants, polymers, pharmaceuticals, compositions, biotechnology, industrial machinery and medical devices. Anthony received his J.D. *cum laude* from The George Washington University Law School and his M.Ch.E. in Chemical Engineering and his B.Ch.E. *magna cum laude* from Manhattan College.



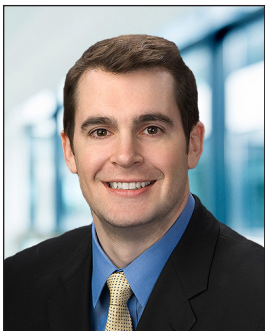
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Mark A. Watkins: Mark is a partner who focuses his practice on all facets of intellectual property protection, including patent, trademark, copyright, trade secrets, and intellectual property litigation. Mark provides IP counsel to many Fortune 1000 companies across the U.S. and around the world, helping companies create IP strategies for the procurement and protection of their IP rights. He has also participated in the enforcement and defense of a wide range intellectual property matters, including patent, trademark and copyright infringements, and misappropriation of trade secrets. His notable experience in this area includes serving as the primary attorney responsible for the management of international trademark procurement and enforcement efforts. This role included the coordination of a worldwide litigation docket; participation in proceedings before the U.S. Customs Service for protection of trademarks and copyrights; and expert witness testimony on patent procurement and litigation issues. Mark received his J.D. from the University of Akron School of Law and his B.S. in Pharmacy from Ohio Northern University.



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Hal Borland: Hal is of counsel in the Vorys Houston office. He has over 15 years of legal experience counseling clients in matters related to U.S. and international patent applications and enforcement with an emphasis in the area of mechanical devices. He has deep experience in patentability investigations, freedom to operate studies, due diligence projects, and invalidity and non-infringement opinions. Hal was a mechanical engineer prior to starting his law career, giving him extensive knowledge of the oil field, aerospace and medical device industries as well as, experience with technologies like down-hole motors, software related to telemetry systems and seismic exploration devices, robotics, fluid systems, surgical, and sport and recreational equipment. He designed and certified flight hardware for the International Space Station and provided mission support for Space Shuttle and Space Station missions. Hal received his J.D. from the University of Houston Law Center and his B.S. in Mechanical Engineering from Rice University.



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Bradley Hough: Brad is an associate in the Vorys Akron office. He focuses his practice on intellectual property, helping clients with patents, trademarks, copyrights, trade secrets and internet law issues. He previously worked as a patent agent before becoming an attorney. Brad has experience with polymers, composite materials, manufacturing methods, electronics, consumer products and mechanical technologies. Brad's practice includes drafting and prosecuting patent applications, drafting patentability, freedom to operate, and infringement opinions, and drafting IP-related contracts. Brad received his J.D. *magna cum laude* from the University of Akron School of Law and his B.S. from the University of Akron with a Chemistry-Polymer focus.



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James F. Hooson: James is a patent agent in the Vorys Houston office and a member of the intellectual property (IP) group. He has experience in preparing patents for the chemistry, chemical engineering, materials science and pharmaceutical fields. He also has experience in amending claims and aiding in the conversion of foreign-filed applications into U.S. applications. In regard to technologies, James has experience with semiconductor fabrication, biotech and batteries. James received his Ph.D. in chemistry from the University of Houston. He received his B.S. in biochemical and biophysical sciences from the University of Houston.



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