

JAMES G. SHELNUT, Ph.D.
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Registered Patent Agent, experienced technology inventor, talent for understanding the research and converting it to patents.

SUMMARY

Expertise: REGISTERED U.S. PATENT AGENT: Registry Number: 48,321, experience writing, prosecuting and docketing complex US and foreign patents and applications. In-depth technology searches, Corporate IP Strategy development. POLYMER SCIENCE: Synthesis, Characterization, Formulation, Conductive polymers. ORGANIC CHEMISTRY: Synthesis, formulation, small molecule technology, UVcure systems ELECTRONIC TECHNOLOGY: Photoresists, Microresists, Circuit board technology, Dielectrics, Wafer fabrication, Photosensitive coatings, Optical waveguides. Organic Electronics, Photovoltaics, Lithography, Flat panel display. INORGANIC CHEMISTRY: Photoluminescent chemistry and formulation, electronics, microelectronics, silsesquioxane

PROFESSIONAL EXPERIENCE

PRINCIPAL Szmanda & Shelnut LLC, Westborough, MA **2009 -present**

- Write/prosecute patents, portfolio management, patentability opinions, prior art searches/evaluations, competitor IP analyses, US and foreign, IP strategy development, Chemical, mechanical, medical device, biotech, nanotech.

SR. PATENT AGENT Performance Indicator, LLC, Lowell, MA **2007 -2010**

- Write/prosecute patents, patentability opinions, prior art searches/evaluations, competitor analyses, US and foreign, IP strategy development, Developed Document Security systems, Chemical, formulation, dyes, photoluminescence, coatings.

PRINCIPAL JEDA Technologies, LLC, Lancaster, MA **2006 -2009**

- Write/prosecute patents, patentability opinions, prior art searches/evaluations, competitor analyses, US and foreign, IP strategy development, Developed Document Security systems, Chemical, formulation, mechanical, biotech.

TECHNICAL MANAGER, PATENT AGENT and SENIOR RESEARCH FELLOW Dow Electronic Materials Company, Marlborough, MA (Formerly, Rohm and Haas Electric Materials Company) **1989 – 2009**

- Patent Agent. Experience in formulating IP strategies, numerous patent preparations, prosecutions and interference proceedings, patentability opinions, prior art searches and analyses, competitor IP analyses. Developed intellectual property strategies businesses.
- Invented and developed commercial photoimageable optical waveguides and dielectric coating compositions based on silsesquioxane chemistries; including formulated products, polymer synthetic methods and testing methodology, including roller coating and dry film applications.
- Invented and developed commercial photoimageable coating composition products for Flat Panel Display passivation and dielectric layers, and SiNx replacement; Co-invented acrylic laser imaging systems for marking.
- Invented 100% solid photoimageable and thermal curing resist systems for electronic applications and roller coated liquid primary photoresists system resulting in \$500M+.
- Invented and developed positive and negative working photoresists, adhesion promoters, solder masks, dry film photoresists, UV cure epoxy systems and low k dielectric packaging systems, polymers and monomers for photoimageable systems, materials for sequential build of circuit boards, organic coatings and metallization systems (copper, nickel, gold), electroless and electrolytic and immersion plating systems, plating baths, ancillaries, cleaners, swell-etch, adhesion promoters.
- Invented and developed conductive polymer coating compositions and processes for direct non-catalytic plated through holes.
- Developed microchip technology; photoresists, ARCs, dielectric layers, metallization chemistries.

TECHNICAL DIRECTOR, Custom Coating and Laminating (St.Gobain) Worcester, MA

RESEARCH MANAGER, Morton Int'l, Tustin, CA

RESEARCH MANAGER, KP Graphics, Yonkers, NY

EDUCATION

Registered to practice in patent matters, United States Patent and Trademark Office **2001**

Ph.D., Organic Chemistry, University of New Hampshire **1978**

B.S., Chemistry, University of Massachusetts at Boston **1974**