



KEITH D. WEISS, PH.D. ASSOCIATE

Keith is not just an intellectual property attorney, but also an inventor who understands the product development cycle having been through the process many times.

Keith's strong science background and more than two decades in corporate research and development has led to him being listed as an inventor on more than 30 U.S. patents. He has substantial experience with advanced materials, applications, and equipment used in multiple global industries, including automotive, aerospace, coatings, plastics, and microelectronic fabrication. His experience also includes the integration of IP processes with R&D, marketing, and quality operations, as well obtaining government funding for R&D initiatives and establishing joint R&D programs.

Becoming a patent agent in 2004 and an IP attorney in 2009 was a logical career progression for Keith. As an intellectual property attorney, he is able to learn and write about new technology without having to create it. The ability to interact with R&D scientists and corporate executives on their level is an asset when attempting to maximize their return on investment through the development and management of internal IP processes and the alignment of their patent portfolio with a strategic business plan. In addition, he has developed processes for securing patents/trademarks and managing publications with successful integration of these processes into corporate ISO quality systems and establishing continual improvement through the creation of quality control metrics, procedures, and work instructions.

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Ann Arbor, MI 48104

EDUCATION

J.D., cum laude
Thomas Cooley Law School, 2009

Ph.D., Inorganic Chemistry
University of Florida, 1986

B.S., Chemistry, magna cum laude
Clemson University, 1981

BAR ADMISSIONS

Michigan
U.S. Dist. Court, E.D. Michigan
U.S. Patent & Trademark Office

“A patent that provides protection for a product that is commercially

successful offers a scientist the utmost satisfaction.” Keith has been fortunate that several of the patents that list him as an inventor fall within this area. While at Dow Corning Corporation, he conducted research related to the hermetic protection of microelectronic circuits that led to the issuance of several patents that protect a product line used to form interlayer dielectric layers in microelectronic devices. At Lord Corporation, he worked on developing and patenting magnetorheological fluid formulations that are used in controllable dampers or shock absorbers.

At Graco Incorporated, Keith managed product service and standard product support groups, in addition to leading an applied research function that focused on developing an understanding of the interactions that occur between application equipment (e.g., pumps, meters, and applicators) and the materials (e.g., paints and adhesives) that are circulated through the equipment and applied to a substrate. In his last corporate position at Exatec LLC (a joint venture between GE Plastics and Bayer AG, now a wholly-owned subsidiary of SABIC Innovative Plastics), he was part of a team that developed plastic window systems for use in automobiles, as well as the processes and equipment necessary to effectively manufacture these windows. Several patents issued for scratch resistant coatings, black-out inks used in 3-D printing, and conductive inks used in defrosters provide protection for these plastic window systems.

Keith has published more than 30 technical papers and given more than 50 presentations at conferences and symposia regarding his scientific research and on a multitude of legal subjects that range from general patent workshops to detailed analysis of the patent landscape for complex technical areas.

EXPERIENCE | LEGAL EXPERIENCE

Brinks Gilson & Lione, Detroit and Ann Arbor, Michigan

Associate, January 2009 - Present

Patent Agent, December 2007 - December 2008

Exatec LLC, Wixom, Michigan

Patent Agent, February 2004 - December 2007

EXPERIENCE | NON-LEGAL EXPERIENCE

Exatec LLC, Wixom, Michigan

(November 1998 - December 2007)

Manager - IP, Contracts, and Regulatory Compliance

Materials Technology Leader and IP Manager

Hard-coat Technologist - Coatings Leader

Graco Inc., Minneapolis, Minnesota

(July 1994 - November 1998)

Manager - Industry/Auto Technology Service & Development

Manager - Industry/Auto Applied Research

Lord Corporation, Cary, North Carolina

(May 1990 - July 1994)

Senior Scientist, Corporate Research & Development

Research Scientist, Corporate Research & Development

Dow Corning Corporation, Midland, Michigan

(December 1985 - May 1990)

Program Leader, Advanced Materials Business

Project Chemist, Electronic Material Research & Development

Associate Project Chemist, Electronic Material Research & Development

TRW, Bearings Division, Falconer, New York

(June - August, 1980 & 1981)

Intern, Chemistry & Metallurgical Laboratory

EXPERIENCE | TEACHING EXPERIENCE

Delta College, University Center, Michigan

Adjunct Professor, 2010 - 2014

Science Division - Chemistry Department

PRACTICE GROUP(S)

International Patent

Licensing

Litigation

Patent Prosecution

Post-Grant Patent

Trade Secrets

Trademarks & Unfair Competition

AREA OF FOCUS

Chemicals, Energy & Agriculture

Green Technology

Medical Device

Nanotechnology

TECHNICAL BACKGROUND

Inorganic Chemistry

Material Science

Polymer Science

FORWARD THINKING

Presentations

- "Cross Border Patent Protection," The University of Windsor, Canada, November 18, 2014

- "The Evolving Intellectual Property Landscape for Nanomaterials," Material Science & Technology Symposium, Pittsburgh, Penn, October 12-16, 2014
- "Patent by Numbers," Licensing Executive Society (LES) Michigan Chapter Meeting, April 26, 2012
- "Part II - Ethical Issues in Legal Outsourcing" Weiss, K., LPO Summit on Best Practices for Developing & Executing a Legal Outsourcing Strategy, New York, NY, 2008
- "Intellectual Property Rights in China" Weiss, K., presented to the Washtenaw County Bar Association, Ann Arbor, MI, 2006
- "Basic Patent Workshop", Weiss, K., an inventorship shortcourse conducted at Exatec LLC, Wixom, MI, 2004
- "Coated Polycarbonate Windows: High Performance and Durability", Weiss, K.; Mukamal, H.; Gasworth, S.; Peters, M.; Kusuma, D; *220th American Chemical Society National Meeting*, Washington D.C., 1999
- "Analysis of the Adhesive Dispensing Process" Weiss, K., *Applied Rheology Symposia*, Adhesive & Sealants Council, St. Paul, MN, 1998
- "Rheological Changes in Automotive Waterborne Basecoats Caused by Circulation" Weiss, K.; Moore, J.; Heilig, W., *6th Annual Advanced Coatings Technology (ACT) Conference & Exposition*, Detroit, MI, 1997
- "Minimizing Variations in the Appearance Properties Exhibited by Metallic & Pearlescent Finishes", Weiss, K., *Future of Coatings Under Study (FOCUS) Conference*, The Detroit Society for Coatings Technology, Detroit, MI, 1997
- "Special Effect Spray Coating", Weiss, K., *Volatile-Less and Volatile-Free Coating & Curing Workshop*, Center for Interfacial Engineering (CIE), University of MN, Minneapolis, MN, 2007
- "Rheological Changes in Automotive Waterborne Basecoats Caused by Circulation", Weiss, K.; Moore, J.; Heilig, W. *Rheology of Two-Phase Systems Workshop*, Center for Interfacial Engineering (CIE), University of Minnesota, Minneapolis, MN, 1997
- "Waterborne Metallic Paints: A Comparison of the Degradation Caused by Various Pumps During Circulation" Weiss, K. D.; Handzel, J.; Lewis, R.; Heilig, W.; Korzenowski, J.; Adams, J. *Society of Automotive Engineers International Conference and Exposition*, Detroit, MI, 1996
- "The Customer Interface" Weiss, K.; Romano, M.; Javaheri, M. *ASC Regional Meeting*, St. Paul, MN, 1996

- "The Development of Test Methodology for Determining Adhesive/Sealant Abrasivity" Weiss, K.; Lindsay, N.; Heilig, W.; White, P.; Orr, A. *Adhesive and Sealants Council's (ASC) International Conference*, San Francisco, CA, 1996
- "Viscoelastic Properties of Magneto- and Electro-rheological Fluids" *2nd International Conference on Intelligent Materials* Weiss, K.; Carlson, J.; Nixon, D., Williamsburg, VA, 1994
- "ER Fluid Inks: A Rainbow of Possibilities", Weiss, K. *ER Fluid Symposium*, Polymer Division, ACS National Meeting, Washington, D.C., 1994
- "ER Fluid Actuators", Coulter, J.; Weiss, K.; Carlson, D. *3rd ICAT Conference on Smart Materials*, Penn State University, University Park, PA, 1993
- "Controllable Fluids: The Temperature Dependence of Post-Yield Properties" Weiss, K.D.; Duclos, T. G. *4th International Conference on ER Fluids*, Feldkirch, Austria, 1993
- "Magnetorheological (MR) and Electrorheological (ER) Fluids" Weiss, K.; *ASME Design Conference*, Albuquerque, NM, 1993
- "Electrorheological Materials and Their Usage in Intelligent Material Systems and Structures, Part I: Mechanisms, Formulations and Properties" Weiss, K. D.; Coulter, J. P.; Carlson, J. D. *Conference on Recent Advances in Adaptive and Sensory Materials and Their Applications*, Blacksburg, VA, 1992
- "Macroscopic Behavior of Electrorheological Fluids: Techniques for Measuring Response Time" Weiss, K. D.; Carlson, J. D. *3rd International Conference on ER fluids*, Carbondale, IL, 1991
- "Amorphous Silicon Carbide Films", Weiss, K., *Dow Corning Technical Conference*, Midland, MI, 1989
- "Microelectronic Ceramics: Synthesis, Characterization and Low Temperature Conversion of Hydrogen Silsesquioxane to "Pure" Silica," *Dow Corning Technical Conference*, Midland, MI, 1987
- "Exposure of Supported Iridium Carbonyl Complexes to CO, H₂ and HCl(g) - Subsequent Formation of Methyl Chloride", *42nd Fall ACS Scientific Meeting*, Midland, MI, 1986
- "Formation of Methyl Chloride from Syngas and HCl(g) by Supported Metal Carbonyl Complexes," *Florida Conference on Catalysis*, Daytona Beach, FL, 1985

HONORS

- National Institute for Trial Advocacy (NITA) Advocate
- Honors Scholarship Recipient, Thomas Cooley Law School, Lansing, MI, 2005
- Graco Presidential Achievement Award, Graco Inc., Minneapolis, MN, 1997
- DC Technical Achievement Award, Dow Corning Corporation, Midland, MI, 1988
- Mark Bernard Hardin Award, Clemson University, Clemson, SC, 1981

AFFILIATIONS

- American Chemical Society
- Society Automotive Engineers
- American Bar Association
- Honor Society of Phi Kappa Phi
- International Trademark Association

REPRESENTATIVE MATTERS

Issued Patents

- “Apparatus and Method of Dispensing Conductive Material with Active Z-Axis Control” Schwenke, R.; Van der Meulen, E.; Bui, B.; Weiss, K. U.S. Patent No. 8,800,482 (2014).
- “Window Defroster Assembly Having Transparent Conductive Layer” Weiss, K. U.S. Patent 8,653,419 (2014)
- “Electrical Connection to Printed Circuits on Plastic Panels” Weiss, K., Shvartsman, Y. U.S. Patent 8,450,660 (2013).
- “Plastic Glazing Panel Having UV Curable Printed Pattern and Process for Making the Same” Lefaux, C.; Menon, N.; Stellmach, K.; Grandhee, S.; Weiss, K.; Foster, K. U.S. Patent No. 8,361,160 (2013).
- “Plastic Glazing System Having a Promotion of Ink Adhesion on the Surface Thereof” Grandhee, S.; Weiss, K.; Na, J. U.S. Patent No. 7,811,656 (2010).
- “Electrical Connection to Printed Circuits on Plastic Panels” Weiss, K.; Yvartsman, Y. U.S. Patent No. 7,781,705 (2010).
- “Decorative Ink for Automotive Plastic Glazing” Grandhee, S.; Weiss, K.; Ning, H. U.S. Patent No. 7,732,041 (2010)

- **“Photochromatic Effect for Polycarbonate Glazing Applications”, Hedderich, W.; Lefaux, C.; Weiss, K., U.S. Patent No. 7,573,630 (2009)**
- **“Pulse Width Modulated Defroster”, Schwenke, R., Weiss, K., U.S. Patent No. 7,423,240 (2008)**
- **“High Performance Defrosters for Transparent Panels”, Weiss, K., U.S. Patent No. 7,297,902 (2007)**
- **“Inks for Use in Membrane Image Transfer Printing Process”, Weiss, K., Beaudoin, J., U.S. Patent No. 7,267,055 (2007)**
- **“High Performance Defrosters for Transparent Panels”, Weiss, K., U.S. Patent No. 7,129,444 (2007)**
- **“Method of Transferring a Membrane Image to an Article in a Membrane Image Transfer Printing Process” Weiss, K.; Beaudoin, J.; van der Meulen, E.; Bui, B., U.S. Patent No. 6,964,226 (2005)**
- **“Ink for a Polycarbonate Substrate”, Weiss, K.; Beaudoin, J.; Reisinger, P., U.S. Patent No. 6,958,189 (2005)**
- **“Method and Magnetorheological Fluid Formulations for Increasing the Output of a Magnetorheological Fluid Device”, Weiss, K.; Carlson, J.; Nixon, D., U.S. Patent No. 6,027,664 (2000)**
- **“Method and Magnetorheological Fluid Formulations for Increasing the Output of a Magnetorheological Fluid Device”, Weiss, K.; Carlson, J.; Nixon, D., U.S. Patent No. 5,900,184 (1999)**
- **“Thixotropic Magnetorheological Materials”, Weiss, K.; Nixon, D.; Carlson, J.; Margida, A., U.S. Patent No. 5,645,752 (1997)**
- **“Temperature Independent Magnetorheological Fluids”, Weiss, K.; Carlson, J.; Duclos, T.; Abbey, K., U.S. Patent No. 5,599,474 (1997)**
- **“Magnetorheological Materials Utilizing Surface Modified Particles”, Weiss, K.; Carlson, J.; Nixon, D., U.S. Patent No. 5,578,238 (1996)**
- **“Method of Forming an Insoluble Coating on a Substrate”, Haluska, L.; Frye, C.; Vincent, H.; Weiss, K., U.S. Patent No. 5,508,062 (1996)**
- **“Magnetorheological Fluid Composite Structures”, Weiss, K.; Duclos, T.; Chrzan, M.; Yanyo, L., U.S. Patent No. 5,547,049 (1996)**
- **“Method for Activating Atomically Polarizable Electrorheological Fluids”, Carlson, J.; Weiss, K., U.S. Patent No. 5,417,874 (1995)**
- **“Magnetorheological Materials Based on Alloy Particles”, Carlson, J. D.; Weiss, K. D., U.S. Patent No. 5,382,373 (1995)**

- "Ionic Dye-Based Electrorheological Materials", Carlson, J. D.; Weiss, K. D.; Bares, J. E., U.S. Patent No. 5,306,438 (1994)
- "Atomically Polarizable Electrorheological Materials", Carlson, J. D.; Weiss, K. D., U.S. Patent No. 5,294,360 (1994)
- "Process for Forming a Coating on a Substrate Using a Silsesquioxane Resin", Weiss, K. D.; Frye, C. L., U.S. Patent No. 5,085,893 (1992)
- "Perhydrosiloxane Copolymers and Their Use as Coating Materials", Frye, C. L.; Haluska, L. A.; Weiss, K. D.; Baney, R. H., U.S. Patent No. 5,091,162 (1992)
- "Metastable Silane Hydrolyzates", Weiss, K. D.; Frye, C. L., U.S. Patent No. 5,045,592 (1991)
- "Metastable Silane Hydrolyzates and Process for Their Preparation", Weiss, K. D.; Frye, C. L., U.S. Patent No. 4,999,397 (1991)
- "Method for the Preparation of Halogen Substituted Methanes and Ethanes", Drago, R. S.; Miller, J. G.; Weiss, K. D., U.S. Patent No. 4,538,011 (1985)

Pending (Published) Applications

- "Method of Dispensing Conductive Material with Active Z-Axis Control" Schwenke, R.; van der Meulen, E.; Bui, B.; Weiss, K. U.S. Publication No. 2011/0262627.
- "Electrical Connections for Plastic Panels Having Conductive Grids" van der Meulen, E.; Weiss, K.; Schwenke, R. U.S. Publication No. 2008/0280503.
- "Electrical Connections for Film Insert Molded Plastic Windows" Li, C.; Velasquez, J.; Weiss, K.; Adkins, T.; van der Meulen, E.; Shvartsman, Y. U.S. Publication No. 2008/0274652.