

Dr. Jack Josefowicz

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PROFESSIONAL COMPETENCE OVERVIEW:

Dr. Jack Josefowicz's background includes basic research and downstream practical issues in electronic materials, electronic micro-devices, electronic systems design, and failure analysis. Additionally, Dr. Josefowicz has expertise in surface science, thin films for both optical and electronic applications. In the area of electronics, Dr. Josefowicz has hands on experience in semiconductor device fabrication (design and testing of Light Emitting Diode (LED) including epitaxial growth of ultra-thin layers of semiconductors, insulators and metals. Dr. Josefowicz has hands on electronic and engineering applications that include the Light Emitting Diode (LED) device design, LED light fixture design and optimization, LED Light Engine printed circuit boards (PCB), including design and fabrication of advanced high layer count printed circuit boards up to 64 layers), LED assembly on metal core PCBs including pick and place surface mount devices (SMD), LED devices and reflow assembly, SMD surface finish materials expertise, advanced electronics for LED power supply drivers and controllers, electronic system reliability, semiconductor device reliability. As an independent consultant, Dr. Josefowicz has served as expert witness in more than 50 cases involving contingent liability and patent infringement cases. Dr. Josefowicz's involvement in patent infringement all related to LED device design, LED luminaire design and LED optics design. These cases included claim definition, IPR, patent claim invalidity, for which Dr. Josefowicz participated in depositions and testimony.

In addition, Dr. Josefowicz was head of research on Li-Ion battery development for space satellites, at Hughes Research Laboratories, including manufacturing, product design and development. Having given invited talks and presentations at international conferences, Dr. Josefowicz has strong communication skills in making science and engineering accessible to non-experts and experts alike.

Additionally, Dr. Josefowicz is an independent consultant, working with both the commercial and aerospace electronic industries. Dr. Josefowicz has worked with law firms to support litigation, defend patent infringement cases and served as an expert witness in legal mediation cases. Dr. Josefowicz is an expert in electronic system reliability prediction analysis, electronic systems failure and root cause analysis, electronic fabrication "best practice" and printed circuit through electronic system assembly. Dr. Josefowicz has successfully determined the "root cause" for electronic system failures that often involve faulty system design that causes overheating of devices resulting in fires. In one expert witness case, Dr. Josefowicz's expert witness report led to a positive settlement in favor of his client where the liability was over \$100 million.

Dr. Josefowicz's career started with basic research at Harvard University, then moving to industrial R&D (at Hughes Research Laboratories, Malibu, CA (HRL)) as well as university research as Professor of Material Science and Engineering (University of Pennsylvania). Projects at HRL included design and fabrication of unique thin film depositions systems, including sputtering, e-beam evaporation, chemical vapor deposition, induction heat deposition and other methods where atomic layer thin films were applied to optical and electronic systems. Dr. Josefowicz has established a reputation in several science fields through publications and patents. Dr. Josefowicz led the design of Light Emitting Diode (LED) lighting fixtures at LED Roadway Lighting Ltd. (LRL). As Executive VP of Technology, Dr. Josefowicz helped launch LRL and led the design of new globally acclaimed high efficiency and high reliability LED streetlights, including electronics power supply driver, LED control systems including dimming and on/off controls, optics design, and fixture housing design for optimized thermal management. Dr. Josefowicz also directed the qualification of suppliers for all the components that included, electronic devices and components, PCB suppliers, die cast and mould design for lean and design for manufacturing, as well as parts and system integration. Dr. Josefowicz bridged R&D and manufacturing which led to high yield and reliability of the manufactured parts.

As Global Director of Technology and R&D (Tycoelectronics-\$1.2 Billion Division), applying the experience in basic research, Dr. Josefowicz headed divisions including advanced multi-layer PCB design, PCB thin film surface finishes, design for reliability, process manufacturing optimization and automation of complex manufacturing processes facilities within Tycoelectronics

in 13 manufacturing factories, including “best practice”, statistical process control, design for manufacturing and reliability testing. During his tenure at Tycoelectronics, Dr. Josefowicz headed a task force for contingent liabilities and was the lead in 45 cases that had an exposure of over \$100M. In those cases, all the analysis, report writing, and defense was performed by Dr. Josefowicz. Additionally, Dr. Josefowicz has been engaged as expert witness in more than 20 patent infringement cases that included 15 depositions and testimony involving LED technology.

Technology Expertise:

1. LED light design:
 - a. LED device design including semiconductor p-n junction fabrication and phosphor wavelength conversion materials science
 - b. Optics for LED devices
 - c. Optics design for street lighting applications
 - d. Power supply driver electronics including dimming and on-off controls
 - e. Luminaire fixture design and thermal management design
 - f. Driver electronics reliability prediction analysis using Telcordia SR332
2. Thin Film Surface Finish Performance and Evaluations – Failure Root Cause Analysis
3. Thin film coating technology, including vacuum deposition design of equipment for plasma sputtering, electron beam deposition, RF plasma, and chemical vapor deposition.
4. Printed Circuit Design, Manufacturing Process Design for “Best Practice”
5. Li ion battery design, materials development and engineering optimization (liquid and polymer gel ionic separator selection and design); thin film coating technology (doctor blade, spray and spreading methodologies), including testing; charging and discharging characteristic analysis and optimization.
6. Molecular and Atomic analysis using Atomic Force Microscopy; Scanning Tunneling Microscopy for material science investigations of metals and insulators (ceramics, plastics, oxides, organometallics).
7. Expertise (hands on) in thin film coating methods including:
 - a. Thermal evaporation
 - b. Chemical Vapor Deposition
 - c. Radio frequency discharge deposition
 - d. Electron beam evaporation
 - e. Sputtering deposition
8. Electronic Reliability Prediction Modeling and Design for Long Life

WORK EXPERIENCE:

- A. Independent Consultant**
- B. LED Roadway Lighting Limited – Halifax, Nova Scotia, Canada/Executive VP, Technology Solutions and Head of R&D 2008 – 2012**
- C. Tycoelectronics/Printed Circuit Group – Los Angeles, CA
Director of Technology and R&D 1996 – 2008**
 - a. Direct manufacturing and operations in new emerging technology, overseeing the Tycoelectronics Printed Circuit Group, Aerospace, Military-High Reliability-10 manufacturing facilities >\$1Billion
- D. Hughes Research Laboratory, Malibu, CA-1985-1996**
 - a. **Principle Scientist and Project Leader 1984 – 1996**
 - b. **Li-Ion Design and Development Program to design and fabricate Li-Ion batteries for Space Satellites using advanced solid state thin film lithium polymer electrolyte battery designs**
 - c. **Establish collaborative program (DARPA) between Hughes Research Labs and University of Pennsylvania (Penn) for the research and development of advanced solid-state thin film lithium polymer electrolyte batteries for Space Satellites**
 - d. **Constructed the first Atomic Force Microscopy laboratory at Penn for atomic analysis of materials applied to materials research and electrochemical analysis**
 - e. **Designed and fabricated Plasma RF Sputtered Superconducting Lattice Matched-on Sapphire Thin Films for Radio Frequency Devices band pass filters for space satellite applications**
 - f. **Program Lead: high temperature superconductors: DARPA Superconductor thin films program**
 - g. **Fabricated the world's first gallium arsenide high speed integrated circuits using self-aligned field effect transistors with pure tungsten gates; fabrication of large-scale high-speed integrated circuits using simple and reliable processes**
- E. University of Pennsylvania**
 - a. **Professor**
- F. Harvard University: Cambridge, MA
Research Associate; 1975-1980**
- G. EDUCATION:**
 - a. **PhD 1975 Physics, University of Waterloo, Waterloo, Ontario, Canada
BSc 1969 Mathematics & Physics, Concordia University, Montreal, Quebec, Canada**
 - b. **TEACHING RELATED EXPERIENCE:**
 - i. **Harvard University:** Associate Research Scientist
 - ii. **University of Pennsylvania:** Professor in Material Science and Engineering; Laboratory for Research on the Structure of Materials
 - iii. **Technical Reviewer:** Thin Solid Films and other journals
 - iv. **Invited Lecturer:** Technology Workshops and Presentations at: Cisco, Celestica, Flextronics, Solectron, Jabil, Northrop Grummund, Motorola, Nokia, Raytheon, Boeing; and many other companies.

PATENTS:

- 1) Jack. Y. Josefowicz, "METHOD AND APPARATUS FOR PRODUCTION OF A METAL FROM METALLIC OXIDE OR USING A COMPOSITE ANODE; ELECTRODEPOSITION OF METALS FROM A MOLTEN ELECTROLYTE". U.S. Patent issued October 15, 1985, Patent number: 4,547,272
- 2) Jack. J. Rowlette, J. Y. Josefowicz, J. W. Sibert and T. J. Clough, "UNITARY PLATE ELECTRODE; ELECTROLYTE CONTAINING ALKALI OR ALKALINE EARTH POLYHALOGENOSULFAT". U.S./October 15, 1985, Patent number: 4,547,443
- 3) Jack. Y. Josefowicz, METAL ELECTROLYSIS USING A SEMICONDUCTIVE METAL OXIDE COMPOSITE ANODE". U.S. Patent issued April 15, 1986, Patent number: 4,582,584
- 4) Jack. Y. Josefowicz, "METHOD AND APPARATUS FOR PRODUCTION OF A METAL FROM METALLIC OXIDE ORE". U.S. Patent issued July 1, 1986, Patent number: 4,597,839
- 5) Jack. Y. Josefowicz, L. Hayashi, S. S. Roberts and J. W. Sibert, "METAL ELECTROLYSIS USING A LOW TEMPERATURE BATH". U.S. Patent issued July 17, 1986, Patent number: 4,595,466
- 6) Jack. Y. Josefowicz, "REPRODUCIBLE METAL OXIDE COMPOSITIONS CONTAINING ZIRCONIUM OXIDE, YITRIUM OXIDE AND AN ALKALI METAL COMPONENT; HYDROREFINING CATALYSTS". Patent issued April 7, 1987, Patent number: 4,656,155
- 7) Jack. Y. Josefowicz, "REDUCIBLE METAL OXIDE COMPOSITIONS CONTAINING ZIRCONIUM". U.S. Patent issued September 6, 1988, Patent number: 4,769,509
- 8) Jack. Y. Josefowicz, D. B. Rensch, M. Bartur and V. Rodov, "GaAs ELECTRICAL CIRCUIT DEVICES WITH Langmuir-Blodgett INSULATOR LAYER". U.S. Patent issued April 21, 1992, Patent number: 5,079,179
- 9) Jack. Y. Josefowicz, D. B. Rensch and K. W. Nieh, "PROCESS FOR THIN FILM PASSIVATION FOR YBa₂Cu₃O_x SUPERCONDUCTORS". U.S. Patent issued May 19, 1992, Patent number: 5,114,910
- 10) Jack. Y. Josefowicz, D. B. Rensch and K. W. Nieh, "PASSIVATION OF THIN FILM OXIDE SUPERCONDUCTORS". U.S. Patent issued Dec. 21, 1993, Patent number: 5,272,133
- 11) Jack. Y. Josefowicz, G. Brand, J. Doughty, "DOPPLER RADAR PAINT PARTICLE VELOCITY ANALYZER". U.S. Patent issued May 24, 1994, Patent number: 5,315,306.
- 12) Jack. Y. Josefowicz, "POLYANILINE CARBON COMPOSITE CATHODE FOR THIN FILM BATTERIES". U.S. Patent issued Sept. 19, 1995, Patent number: 5,451,476
- 13) Jack.Y. Josefowicz, "APPARATUS AND METHOD FOR COATING A MULTILAYER ARTICLE". Patent issued April 11, 2000, Patent number: 6,048,584.
- 14) Jack. Y. Josefowicz, John Adam Christopher Roy, Adam Frederick Chaffey "Light Emitting Diode Roadway Lighting Optics," US Patent 20110194281-August 11, 2011.
- 15) Jack. Y. Josefowicz, Matthew Francis Durdle, Charles Andrew Cartmill "Light Emitting Diode (LED) Roadway Lighting Fixture," US Patent 20110188233-August 4, 2011.
- 16) Jack. Y. Josefowicz, Alan Shawn Winters, Qiuning Chen, Mark Adam Neary "Power Supply for Light Emitting Diode Roadway Lighting Fixture," US Patent 8760072-June 24, 2010.
- 17) Jack. Y. Josefowicz, Alan Shawn Winters, Qiuning Chen, Mark Adam Neary "Power Supply for LED Roadway Lighting Fixture," US Patent 20120001566-January 5, 2012.
- 18) Jack. Y. Josefowicz, John Adams Christopher Roy, Adam Frederick Chaffey "Light Emitting Diode Roadway Lighting Optics," US Patent 8651693-February 18, 2014.
- 19) Jack. Y. Josefowicz, Matthew Francis Durdle "Light Fixture," PCT US Patent D615233-May 4, 2010.

- 20) Jack. Y. Josefowicz, Matthew Francis Durdle, Charles Andrew Cartmill "Light Emitting Diode Roadway Lighting Fixture," US Patent 8529085-September 10, 2013.
- 21) Jack. Y. Josefowicz, Mark Adam Neary, Qiuning Chen "GPS-based Streetlight Wireless Command and Control System for LED Lighting," US Patent 20130057158-March 7, 2013.
- 22) Jack Y. Josefowicz, Matthew Francis Durdle, Tristan Roland Laan "Light Fixture," PCT US Patent D630790-January 11, 2011.

LIST OF PUBLICATIONS:

- 1) J. Y. Josefowicz and H. J. T. Smith, Zero bias resistance anomalies in magnesium tunnel junctions, *Can. J. Phys.* 51, 597-604 (1973)
- 2) J. Y. Josefowicz and H. J. T. Smith, Tunneling junctions with CdS barriers, *J. Appl. Phys.* 44, 2813-2815 (1973)
- 3) J. Y. Josefowicz and F. R. T. Hallett, Homodyne electrophoretic light scattering of polystyrene spheres by laser cross beam intensity correlation, *Appl. Optics* 14 740-742 (1975)
- 4) J. Y. Josefowicz and F. R. T. Hallett, Cell surface effects of pokeweed observed by electrophoretic light scattering, *FEBS Letters* 6Q. 62-65 (1975)
- 5) J. Y. Josefowicz, B. R. Ware, A. L. Griffith and N. Catsimpoolis, Physical heterogeneity of mouse thymus lymphocytes, *Life Sciences* 21, 1483-1487 (1977)
- 6) S. J. Luner, D. Szklarek, R. J. Knox, G. V. F. Seaman, J. Y. Josefowicz and B. R. Ware, Red cell charge is not a function of age, *Nature* 269, 719-721 (1977)
- 7) J. Y. Josefowicz, Electrophoretic light scattering and its application to the study of cells, in: *Methods of Cell Separation Vol. 2*, 67-91, (N. Catsimpoolis, ed.) Plenum Press, (1979)
- 8) Y. C. Chang, R. O. Loutfy, G. C. Hartman, C. C. Yang, and J. Y. Josefowicz, Charge exchange at a metal-hydrocarbon fluid interface: A mechanism in photoactive pigment electrography, *Photographic Sci. and Engineering* 21, 357-361 (1979)
- 9) J. Y. Josefowicz, C. C. Yang, Z. Popovic, New charge-transfer mechanism across the interface between selenium and polystyrene hexylmethacrylate, *Phys. Rev. Lett.* 41, 886-889 (1979)
- 10) C. C. Yang, J. Y. Josefowicz and L. Alexandru, Deposition of thin films by a withdrawal method, *Thin Solid Films* 14, 117-127 (1980)
- 11) J. Y. Josefowicz and C. C. Yang, Electrical properties of particle migration microfilm, *J. Appl. Phys.* 51, 4291-4295 (1980)
- 12) J. Y. Josefowicz and C. C. Yang, Unusual charge transfer at a photoconductor copolymer interface: its role in a novel particle migration microfilm, in *Conductive Polymers* 95-114, (R. B. Seymour, ed.) Plenum Press, New York (1981)
- 13) J. Y. Josefowicz and D. Landheer, Determination of the bulk conductivity of conductive base papers, *Tappi* 64, 116-118 (1981)
- 14) J. Y. Josefowicz, E. Anczurowski, A. Y. Jones and Y. Deslandes, Bulk Conductivity Measurement of paper by a new in-situ pressure cell, *J. Sci. Inst.* 52(6), 926-932 (1981)
- 15) J. Y. Josefowicz and Y. Deslandes, Electrical conductivity of paper: Measurement methods and charge transport mechanisms, in: *Colloids and*

- Surfaces in Reprographic Technology (L. M. Hair and M. D. Croucher, ed.) A C S Symposium Series 200, 493-530 (1982)
- 16) Y. H. Shing, Y. Chang, A. Mirshafii, L. Hayashi, S. S. Roberts, J. Y. Josefowicz and N. Tran, Sputtered Bi₂Te₃ and PbTe thin films, *J. Vac. Sci. Technol. A* 1, 503-506 (1983)
 - 17) N. Tran, Y. C. Chang, D. A. Faragalli, S. S. Roberts, J. Y. Josefowicz and Y. H. Shing, GeTe thin films: Amorphous and crystalline characteristics, *J. Vac. Sci. Technol. A*, 345-347 (1983)
 - 18) S. S. Roberts, S. Rabinovich, Y. H. Shing, N. Tran and J. Y. Josefowicz, Thermoelectric thin film high temperature measurements by computer control, *J. of Sci. Inst.* 52(2), 276-284 (1986)
 - 19) A. P. Ratvik, T. H. Laher, S. S. Roberts, J. Y. Josefowicz and G. Mamantov, Studies of composite anodes for production of Al and Mg, *J. Electrochem. Soc.* 134(2), 321-327 (1987)
 - 20) J. Y. Josefowicz and D. B. Rensch, The fabrication of EFET, DFET and RING oscillators with pure tungsten gates, *Proceedings of the GaAs IC Symposium* 43-46 (1986)
 - 21) J. J. Rowlette, S. A. Alleaitis, N. Pinsky and J. Y. Josefowicz, Stability of stannic oxide in lead dioxide electrodes, *21st Intersociety Energy Conversion Engineering Conference Proceedings* 1052 (1986)
 - 22) J. Y. Josefowicz and D. B. Rensch, High-temperature stable W/GaAs interface and application to metal -semiconductor field-effect transistors and digital circuits, *J. Vac. Sci Technol.* B5(6), 1707-1715 (1987)
 - 23) D. J. Jackson, J. Y. Josefowicz, D. B. Rensch, D. L. Persechini, Detectors for monolithic optoelectronics, *Fiber and Integrated Optics* 7.(3), 229-233 (1987)
 - 24) E. W. Avnear, G. L. Kerber, J. Spargo, A. Toth and J. Y. Josefowicz, Laser patterning of YBa₂Cu₃O_x and NbN superconducting microbridges. Proceedings, *Applied superconductivity Conference*, San Francisco,, August (1988)
 - 25) B. M. Clemens, C. W. Nieh, J. A. Kittl, W. L. Johnson, J. Y. Josefowicz and A. T. Hunter, Nucleation and growth of YBaCuO on SrTiO₃, *Appl. Phys. Lett.* 53, 1871-1873 (1988)
 - 26) E. Wiener-Avnear, J. E. Cooper, G. C. Kerber, J. W. Spargo, A. G. Toth, J. Y. Josefowicz, D. B. Rensch, B. M. Clemens and A. T. Hunter, Laser patterning of YBaCuO weak link Bridges, *IEEE Trans Mag.* 25(2), 935-938 (1989)
 - 27) D.W. Cooke, E.R. Gray, R.J. Houlton, H.H.S. Javadi, M.A. Maez, B.L. Bennett, B. Rusnak, E.A. Meyer, P.N. Arendt, J.G. Beery, D.R. Brown, F.H. Garzon, I.D. Raistrick, A.D. Rollett, B. Bolmaro, D. Elliott, N.E. Klein, N. Muller, G. Orbach, S. Piel, H., J.Y. Josefowicz, D.B. Rensch, L. Drabek and G. Gruner, Surface resistance of YBa₂Cu₃O₇ films deposited on LaGaO₃ substrates, *Physica C* 162-164(2), 1537-1538 (1989)
 - 28) C. W. Nieh, L. Antony, J. Y. Josefowicz and F. G. Krajenbrink, Microstructure of epitaxial YBaCuO thin films, *Appl. Phys. Lett.* 56. 2138-2140 (1990)
 - 29) D. W. Cooke, E. R. Gray, H. H. S. Javadi, R. J. Houlton, B. Rusnak, E. A. Meyer, P. N. Arendt, N. Klein, G. Muller, S. Orbach, H. Piel, L. Drabek, G. Gruner, J. Y. Josefowicz, D. B. Rensch, and F. Krajenbrink, Frequency dependence of the surface resistance in high -temperature superconductors, *Solid State Comm.* 73(4), 297-300 (1990)

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- 31) D. B. Rensch, J. Y. Josefowicz, P. Macdonald, C. W. Nieh, W. Hoefer and F. Krajenbrink, Fabrication and characterization of high-TC superconducting X band resonators and bandpass filters, *IEEE Trans. Mag.* 27(2), 2553-2556, (1991)
- 32) T. E. van Deveter, P. B. Katehi, J. Y. Josefowicz, and D. B. Rensch, High frequency characterization of high-temperature superconducting thin films lines, *Electromagnetics* 11, 255-268 (1991)
- 33) J.Y. Josefowicz, N.C. Maliszewskyj, S.H.J. Idziak, P.A. Heiney, J.P. McCauley and A.B. Smith, Structure of Langmuir-Blodgett Films of a Disk-Shaped Molecule Determined by Atomic Force Microscopy, *Science* 260, 323-326 (1993)
- 34) J.Y. Josefowicz, L. Xie and G.C. Farrington, Observation of Transient Surface Morphology Modifications on Cu by In-Situ Electrochemical Atomic Force Microscopy, *J. Phys. Chem.* 1993, 11995-11998 (1993)
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- 38) M.A. Smith, J.Y. Josefowicz and D.P. Pope, Observations of Metal/Sapphire Fracture Surfaces Using Atomic Force Microscopy, *Mat. Sci. Eng.*, A176, 405- (1994).
- 41) J.Y. Josefowicz, F.G. Yamagishi and C. van Ast, Atomic Force Structural Characterization of Polyaniline Thin Film Sensors, *Mat. Res. Soc. Symp. Proc.*, 338, 605-611 (1994).
- 42) P. P. Macdonald, D.B. Rensch, J.Y. Josefowicz, F. Williams and W. Hoefer, HTS Microstrip Matching Networks and Filters, *IEEE Trans. Microwave Theory and Techniques*, 42, 523-528 (1994).
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- 44) J.Y. Josefowicz, J.J. DeLuccia, V.S. Agarwala and G.C. Farrington, In-Situ Atomic Force Microscopy Studies of Corrosion and Inhibition Processes in Al Alloys, *Mat. Charat.*, 34, 73-79 (1995).
- 45) N.C. Maliszewskyj, P.A. Heiney, J.Y. Josefowicz, T. Plesnivy, H. Ringsdorf and P. Schuhmacher, Structure of Langmuir Blodgett Films of Star Shaped Oligomeric Discogens, *Langmuir*, 11, No. 5, 1666-1674 (1995).
- 46) K. Kowal, J. DeLuccia, J.Y. Josefowicz, C. Laird and G.C. Farrington, In-Situ Atomic Force Microscopy Observations of the Corrosion Behavior of Aluminum-Copper Alloys, *J. Electrochem. Soc.*, 143, 2471-2481 (1996).
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Di- and Trifunctionalized Hexaalkoxytriphenylene Derivatives, *Thin Solid Films* 119, 4740-4748 (1997).

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50) N.C. Maliszewskyj, O.Y. Mindyuk, P.A. Heiney, J.Y. Josefowicz, P. Schuhmacher and H. Ringsdorf, Structural Phase Transition in Ultrathin Films of Disk-Shaped Molecules, *Liquid Crystals* 26, 31-36 (1999).

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CASES IN WHICH I HAVE TESTIFIED AS AN EXPERT AT TRIAL OR BY DEPOSITION IN THE LAST FOUR YEARS:

Seoul Semiconductor Co., Ltd. et al v. Fry's Electronics, Inc., 2-18-cv-00386 (EDTX)

LG Innotek Co., Ltd. v. Seoul Semiconductor Co., Ltd. IPR2019-01157 (PTAB)

LG Innotek Co., Ltd. v. Seoul Semiconductor Co., Ltd., IPR2019-01158 (PTAB)

Ultravision Technologies, LLC v. Holophane Europe Limited, 2-19-cv-00291 (EDTX)

LED Lighting Devices, LED Power Supplies, and Components Thereof, 337-TA-1081 (ITC)

Certain Light-Emitting Diode Products, Fixtures, and Components Thereof; 337-TA-1213 (ITC)

Acuity Brands Lighting, Inc. v. Ultravision Technologies, LLC, 1-19-cv-02207 (DDE)

Lighting Science Group Corp. v. Acuity Brands, Inc. et al, 1-19-cv-00805 (DDE)

Lighting Science Group Corp. v. General Electric Co. et al, 1-19-cv-00806 (DDE)

Lighting Science Group Corp. v. Cooper Lighting LLC, 1-19-cv-00808 (DDE)

Lighting Science Group Corp. v. MLS Co., Ltd. et al, 1-19-cv-00798 (DDE)

Lighting Science Group Corp. v. Signify N.V. et al, 1-19-cv-00807 (DDE)

ONGOING CASES IN WHICH I ANTICIPATE TESTIFYING AT TRIAL OR BY DEPOSITION:

Sensor Electronic Technology, Inc. v. Lite-On Technology Corporation et al., 6-21-cv-00322 (WDTX)

Sensor Electronic Technology, Inc. v. Lite-On Technology Corporation, IPR2022-00395 (PTAB)

Sensor Electronic Technology, Inc. v. Genesis Photonics Inc. et al, IPR2022-00396 (PTAB)

Sensor Electronic Technology, Inc. v. Genesis Photonics Inc. et al, IPR2022-00397 (PTAB)