MC-CAM Presentations

2019:
“Tribological Characterization of Triple Function Lubricant Additives Based on Organic–Inorganic Hybrid Star Polymers”
Presented by Dongjin Seo at the ACS Colloid & Surface Science Symposium, Atlanta, GA, June 17, 2019

2018:
“High-k Fluoropolymer Gate Dielectric in Electrically Stable Organix Field Effect Transistors”
Presented by Alex Lill at the Emerging Materials Technologies Summit, Hanoi, Vietnam, November 4, 2018

“Extended PDI Acceptors and Their Optoelectronic and Film-Forming Properties”
Presented by Julia Schneider at the EMC Conference, UCSB, June 27, 2018.

“Prospects and Design Rules for Singlet Fission-Enhanced Visibly Transparent Organic Solar Cells”
Presented by Michael Abramovitch at the APS March Meeting, Los Angeles, CA, March 8, 2018.

2017:
“Alternatives to Chlorinated Solvents for Greener Organic Field-Effect Transistor Processing”
Presented by Alejandra Gonzalez at the Annual Biomedical Research Conference for Minority Students (ABRCMS), Phoenix, AZ, November 2, 2017.

“Expanding Perylene Diimide for Small Molecule Non-Fullerene Acceptors”

“Understanding and improving the operational stability of polymer field-effect transistors”

“Unipolar Transport from Ambipolar Conjugated Polymers using Solution-Processed Additives”

“Identifying the Role of Macromolecular Architecture in the Viscosity Modification of Lubrication Oils by Star Polymers”
Presented by Bas van Ravensteijn at the ACS Colloid & Interface Science Symposium, New York, NY, July 9-12, 2017.

“Structure and Formation of Lyotropic Mesophases in High Mobility Semiconducting Polymers”
Presented by Colin Bridges at the Canadian Chemistry Conference, Toronto, Ontario, June 1, 2017.

“Using disulfide crosslinked polymers to eliminate shuttle in lithium–sulfur batteries”

“Using disulfide crosslinked polymers to eliminate shuttle in lithium–sulfur batteries”
presented by Molleigh Preefer at the International Workshop on Advanced Materials, Ras Al Khaimah, United Arab Emirates on February 20, 2017.

“Carrier-Selective Traps to Control Ambipolar Transport in Conjugated Polymers”

2016:
“Understanding Electron-Induced Instability of p-type Field-Effect Transistors fabricated from Low Band-gap Donor-Acceptor Polymers”
presented by Hung Phan at the MRS Spring Meeting, Phoenix, Arizona, March 30, 2016.

“Polymeric sulfur cathodes based on renewable feedstocks”
presented by Anna Melker at the Materials Research Outreach Program poster session, UCSB, February 3, 2016.

“Main-group halide photovoltaics derived from perovskite”
presented by Douglas Fabini at the Materials Research Outreach Program poster session, UCSB, February 3, 2016.

“Electron-Induced Instability of p-type Polymer Field-Effect Transistors: Mechanistic understanding and mitigating by fullerenes”
presented by Hung Phan at the ICSM Conference, Guangzhou, China, June 2016.

“Temperature-Dependent Polarization Effects in Methylammonium Lead Iodide Transistors and Solar Cells”
Presented by John Labram at the ICSM 2016 Conference in Guangzhou, China on June 29, 2016.

“Improving Charge Mobility of Organic Field Effect Transistors through Polymer Structure Design and Device Engineering”
presented by Tyler Postle at the Southern California Conferences for Undergraduate Research (SCCUR), Riverside, CA, November 12, 2016.

“Structure and Thermodynamic Transitions of High Mobility Semiconducting Polymers in Solution”
presented by Colin Bridges at the MRS Meeting, Boston, MA, December 6, 2016.

2015:
“Influence of connected porosity on the conversion reaction lithiation of MnO”
presented by Megan Butala at the Materials Research Outreach Program poster session, UCSB, February 4, 2015.

“Role of cation chemistry on conversion of MS₂(M= Fe, Co, FeₓCo₁₋ₓS₂) as a lithium ion battery cathode”
presented by Hayden Evans at the International Workshop on Advanced Materials poster session, Ras Al Kaimah, UAE, February 22, 2015.

“Using NEXAFS spectroscopy to probe the Biaxial Orientation of Pyridal[2,1,3]thiadiazole containing Donor-Acceptor Polymer”

“Preparation, crystal chemistry, optical properties, and electronic structure of bismuth halides”
presented by Anna Lehner at the Spring ACS Meeting, Denver, Colorado, March 25, 2015.

“Band-gap Engineering via Ternary Regioregular Copolymer Strategy for Polymer Solar Cells”
presented by Ming Wang at the MRS Spring Meeting, San Francisco, CA, April 10, 2015.

“Role of aluminum content in the green inorganic phosphor β–Si₆₋ₓAlₓOₓN₈₋ₓ:Eu²⁺”

“Pyrites for conversion batteries: the effects of cation chemistry on electrochemical performance”

“Electrical Instability of p-type Field-Effect Transistors from Low Band-gap Donor-Acceptor Polymer Induced by Electron Trapping”
presented by Hung Phan at the 12th International Symposium on Functional $\pi$-Electron Systems (F$\pi$-12) at the University of Washington, Seattle, WA, July 20, 2015.

“High Open Circuit Voltage in Regioregular Narrow Band-Gap Polymer Solar Cells”
presented by Ming Wang at the 12th International Symposium on Functional $\pi$-Electron Systems (F$\pi$-12) poster session at the University of Washington, Seattle, WA, July 20, 2015.

“Temperature-Dependent Polarization Effects in Methylammonium Lead Iodide Electronic Devices”
presented by John Labram at the MRS Fall Meeting, Boston, Massachusetts, December 1, 2015.

“Synthesis of novel, sulfur-rich polymers: poly(sulfur-co-myrcene)”

“Pyrites for conversion batteries: The effects of cation chemistry on electrochemical performance”
presented by Megan Butala at the Pacifichem Conference, Honolulu, Hawaii, December 18, 2015.

2014:
“Beyond Li-ion: Conversion Reaction Systems for Next Generation Batteries”

“Vapor phase leaching for the preparation of porous transition metal oxides for conversion reaction battery anodes”
presented by Megan Butala at the poster session at the International Workshop on Advanced Materials, Ras Al Kaimah, UAE, February 22, 2014.

“The calcium-sulfur primary conversion reaction battery system”

“Vapor phase leaching for the preparation of porous transition metal oxides for conversion reaction battery anodes”
presented by Megan Butala at the Gordon Research Conference poster session, Ventura, CA, March 9, 2014.

“Beyond Li-ion: Calcium-Sulfur Conversion Energy Storage”
presented by Kimberly See at the MRS Spring Meeting, April 23, 2014.

“Engineering the valine assimilation pathway to produce biochemicals and fuels in S. cerevisiae”

“Structural Characterization of Aligned High Mobility Semiconducting Polymer”
presented by Shrayesh Patel at the Gordon Research Conference in Polymer Physics, July 13, 2014.

“Structural Characterization of Exceptionally Aligned Regioregular CDT-PT based Copolymer with High Field Effect Mobility”
presented by Shrayesh Patel at the AIChE conference, Atlanta, Georgia, November 20, 2014.
“Complex 6s²6p⁰-metal halides: Crystal structures and implications for photovoltaic application from ab-initio calculations”
presented by Anna Lehner at the Materials Research Society conference, Boston, MA, December 1, 2014.

“Influence of connected porosity on the Li conversion storage of MnOs”
presented by Megan Butala at the MRS Fall Meeting, Boston, MA, December 3, 2014.

“Molecular Assembly and Charge Transport in High-Mobility OFETs Fabricated from Aligned Semiconducting Polymers”
presented by Hung Phan at the MRS Fall Meeting, Boston, MA, December 1, 2014.

2013:
"Understanding Bulk and Interfacial Ion Transport in Polymer Electrolytes"
presented by Kate Barteau at the 2013 Materials Research Outreach Symposium, UCSB, February 6, 2013.

"Sustainable and earth abundant materials for energy storage: the Li-air and Ca-S systems"
presented by Kimberly See at the 2013 Materials Research Outreach Program poster session, UCSB, February 6, 2013.

"Microwave-assisted preparation of Åkermanite (Ca₂MgSiO₇)"
presented by Alex Birkel at the 2013 Materials Research Outreach Program poster session, UCSB, February 6, 2013.

"Self-assembly study for fully conjugated donor-acceptor block copolymer"

"Ion Transport in Amorphous Polymer Electrolytes"
presented by Kate Barteau at the 2013 APS March Meeting, Baltimore, MD, March 20, 2013.

“Correlating Polymer Properties to Ion Transport in Amorphous Polymer Electrolytes”
presented by Kate Barteau at the 2013 MRS Meeting poster session, San Francisco, CA, April 1, 2013.

"Calcium-sulfur reaction conversion energy storage"
presented by Kimberly See at the 2013 ACS Meeting, New Orleans, LA, April 11, 2013.

“Toward sustainable and green energy storage: the successes and challenges of the Ca-S room temperature primary cell”


“Functionalization of fullerenes for organic photovoltaics”
presented by Laura Neumann at the Eindhoven University of Technology, November 19, 2013.

2012:


“Tough Polymeric Copolymer Organogels and Elastomers as Short Fiber Composites” presented by Ed Kramer at the APS March Meeting, Boston, MA, February 27, 2012.


“Stille-Coupling Polymerization Towards Rod-Rod Conjugated Block Copolymer” presented by Sung-Yu Ku at the ACS March Meeting, San Diego, CA, March 26, 2012.

“The Effect of Salt on Binary Mixtures of Poly(glycidyl)ethers” presented by Saemi Oh at the ACS March Meeting, San Diego, CA, March 27, 2012.


“Tough polyolefin elastomers from copolymers with semicrystalline sPP grafts” presented by Ed Kramer at the 15th International Conference on Deformation, Yield, and Fracture of Polymers, Kerkrade, Netherlands, April 5, 2012.


"Organic Photovoltaics with Tetrabenzoporphyrin and Fullerene Derivatives Characterized by Photoconductive Atomic-Force Microscopy"

"Rapid microwave-assisted preparation of efficient phosphors for solid state lighting"

“Assessing Novel Benzodipyrrolidone Low-bandgap Polymers for Use in Organic Photovoltaics”
presented by Bertrand Tremolet de Villers at the 2012 Organic Solar Cell Symposium and Global School for Advanced Studies, Taipei, Taiwan, September 17, 2012.

"Lithium-sulfur energy storage: Sulfur-modified carbons as sulfur hosts"
presented by Kimberly See at the 2013 MRS Fall Meeting, Boston, MA, November 27, 2012.

2011:
“Elasticity and toughness of gels made of semicrystalline polyolefin block copolymers”
presented by Fanny Deplace at the 2011 Materials Research Outreach Program poster session, UCSB, February 2, 2011.

“Origin of the Toughness and the Elastomeric Properties of Gels from Block Copolymers with Semicrystalline Syndiotactic Polypropylene Blocks”
presented by Fanny Deplace at the 2011 APS March Meeting, Dallas, TX, March 25, 2011.

“Tough organogels and elastomers from block copolymers with semicrystalline syndiotactic polypropylene blocks”

"Measurement Technologies and Encapsulation Approaches for Multi-Layer Barrier Films"

presented by Sung-Yu Ku at the IUMRS-ICA 2011 12th International Conference in Asia, Taipei, Taiwan, September 22, 2011.

“Bulk Hetero Junction Solar Cells: Shedding Light on the Morphology of Polymer-Fullerene Blends”
presented by Alessandro Varotto at the EMRS meeting in Strasbourg May 13, 2011.

“Akermanite: Development of Yellow Phosphors for Solid-State White Lighting”
presented by Lucy E. Darago at Argonne National Laboratory’s 21st Symposium for Undergraduates in Science, Engineering and Mathematics, Argonne, IL, October 14, 2011.

“Tough Polymeric Organogels and Elastomers with Self-reinforcing Short Fiber Composite Character”
presented by Ed Kramer at the Composites at Lake Louise Conference, November 2, 2011.

2010:
"Multilayer Barrier Films Comprising Nitrogen Spacers Between Free-standing Barrier Layers"

"Towards Cost-Effective, Solution Processed Encapsulant Films for Organic Electronic Devices – Controlling Flow Instabilities during Film Formation"

"Towards Cost-Effective, Solution Processed Encapsulant Films for Organic Electronic Devices – Controlling Flow Instabilities during Film Formation”
presented by Jimmy Granstrom at the 2010 APS March Meeting Poster Session C1, Portland, Oregon, March 15, 2010.

“High Performance Encapsulation Structures Utilizing Russian Doll Architectures”

“Structural changes of semicrystalline polyolefin block copolymer elastomers during step mechanical processing"
presented by Fanny Deplace at the 2010 APS March Meeting, Portland, Oregon, March 19, 2010.

“Hybrid Frameworks for Solid State Lighting”

“Bandgap control in conjugated oligomers and polymers via Lewis Acids”

"Towards Cost-Effective, Solution Processed Encapsulant Films for Organic Electronic Devices – Controlling Flow Instabilities during Film Formation"
presented by Anshuman Roy at the MRS Spring Meeting, San Francisco, CA, April 5, 2010.

"High Performance Encapsulation Structures Utilizing Russian Doll Architectures"

“A novel class of fullerene derivatives as electron acceptors in organic solar cells”

“Structural Changes of Semicrystalline Polyolefin Block Copolymer Elastomers During Step Cycle Mechanical Processing”
presented by Fanny Deplace at the Gordon Conference on Polymer Physics poster session, Mount Holyoke College, South Hadley, MA, July 1, 2010.

“Step Cycle Mechanical Processing of Elastomeric Polyolefin-based Block Copolymers with Semicrystalline Blocks”
presented by Ed Kramer at the Gordon Conference on Polymer Physics, Mount Holyoke College, South Hadley, MA, July 1, 2010.

“New Material Platforms for Biological and Pharmacological Applications”
presented by Elizabeth Amir at the ACS Fall Meeting, Boston, MA, August 25, 2010.

“Facile syntheses of low band n-conjugated copolymers based on fused terthiophene and benzothiadiazole”
“Novel class of fullerene derivatives as electron acceptors in organic solar cells”
presented by Alessandro Varotto at the Pacificchem 2010 Conference, Honolulu, HI, December 17, 2010.

2009:
“Nano-porous Poly(3-hexylthiophene) Films: A Novel Route to Prepare Bulk Heterojunction Photovoltaic Devices”
presented by Tirtha Chatterjee at the 2009 Materials Research Outreach Program poster session, UCSB, February 3, 2009.

“Cytop(TM) as a passivation layer for plastic electronic devices”

“Nickel catalysts for ethylene polymerization supported on and activated by clay”
presented by Susannah Scott at the ACS meeting in Salt Lake City, March 25, 2009.

“Rough Poly(3-hexylthiophene) films: A novel route to prepare bulk heterojunction photovoltaic devices”

“Step Cycle Deformation Processing of Elastomers and Gels Based on Semicrystalline Polyolefin-based Block Copolymers”

“Processing-Structure-Mechanical Property Relationships of Semicrystalline Polyolefin-based Block Copolymers”
presented by Fanny Deplace at the International Conference on Deformation, Yield, and Fracture of Polymers, Netherlands, April 9, 2009.

"Low-cost encapsulation of plastic electronic devices"
presented by Jimmy Granstrom at the Nordic Polymer Days, Copenhagen, Denmark, May 26, 2009.

"Organic light-emitting diodes encapsulated with nitrogen spacers between intermittent free-standing barrier films"
presented by Jimmy Granstrom at the Nordic Polymer Days poster session, Copenhagen, Denmark, May 26, 2009.

“Semicrystalline Polyolefin-Based Block Copolymers: A New Class of Thermoplastic Elastomers”

“α-Keto-β-Diimine Complexes of Nickel and Palladium as Catalysts for Olefin Polymerization”

“Preparation of Functionalized Polyethylene Materials Using a Combination of Coordination Insertion and Atom Transfer Radical Polymerizations”

"Transparent, Flexible Composite Barrier Films from Solution"
presented by Jeffrey Gerbec at the 2009 MRS Fall Meeting, Boston, MA, December 1, 2009.

2008:


“Clay-Supported Catalysts for Ethylene Polymerization and Copolymerization” presented by Mabel Caipa at the Gordon Conference, Boston, Massachusetts, July 6-11, 2008.


2007:
“Polyethylene Clay Nanocomposites Generated by In Situ Polymerization” presented by Brian Peoples at the 2007 Materials Research Outreach Program poster session, UCSB, January 25, 2007.


“Relationship between mechanical properties and chain architectures of semicrystalline thermoplastic elastomeric triblock polyolefins” presented by Zhigang Wang at the APS meeting, Denver, CO, March 5, 2007.


“Polyethylene Clay Nanocomposites Generated by In Situ Polymerization” presented by Brian Peoples at the ICMR sponsored Brazil-US workshop, Gramado, Brazil, April 2007.

“Catalytic Routes to Polyolefin Nanocomposite Materials” presented by Susannah Scott at the ICMR sponsored Brazil-US workshop, Gramado, Brazil, April 2007.


2006:
“Semi-crystalline polyolefin-based block copolymers for thermoplastic elastomers” presented by Ed Kramer at the International Conference on Deformation, Yield and Fracture of Polymers, Netherlands, April 12, 2006.


“Polyethylene Clay Nanocomposites Generated by In Situ Polymerization” presented by Brian Peoples at the CIMAT "Frontiers in Materials Research III” workshop, Vina del Mar, Chile, October 11-14, 2006.

“Catalytic Routes to Polyolefin Nanocomposite Materias” presented by Susannah Scott at the Catalysis Center of Northwestern University, November 7, 2006.

2005:


“Low Voltage aqueous electrodeposition of hydroxylated fullerene thin films,” presented by Alan Kleiman at the Electrochemical Society meeting, Quebec, Canada, May 2005.

“Time-Resolved Studies of Fluorescence and Band-Edge Charge Carrier Dynamics in InxGa1-xP Colloidal Quantum Dots,”

“Thermal and Mechanical Properties of Gradient Copolymers containing Ethylene and 5-Norbornen-2yl Acetate,”
presented by Atsushi Hotta at the American Chemical Society Meeting, August 28, 2005.

“Tapered Tetrablock Copolymers of Ethylene and 5-Norbornen-2-yl acetate Using a Novel Two Component Ni Initiator System”

2004:
“Thermo-mechanical properties of semicrystalline sPP-EPR diblock and sPP-EPR-sPP triblock copolymers,”
presented by Atsushi Hotta at the Materials Research Outreach Program and the American Physical Society meeting, January 2004.

“Block Copolymers of Ethylene and Functionalized Monomers,”
presented by Steve Diamanti at the Materials Research Outreach Program, UCSB, January 2004.

“Encapsulation of ZnS:Mn2+ Nanoclusters with PS-PVP Diblock Copolymer,”

“NMR Analysis of Surfaces and Interfaces in CdSe Nanocrystals,”
presented by Mia Berrettinii at the American Chemical Society meeting, March 2004.

“Fluorescence and atomic force microscopy studies of polyelectrolyte, CdSe nanoparticle heterostructure,”
presented by Asanga Ranasinghe at the American Chemical Society meeting, March 2004.

“Transparent PMMA-SiO2-TiO2 Nanocomposites for Optical Applications,”
presented by Wenbin Hong at the American Chemical Society meeting in March 2004, and at the Materials Research Society meeting in April 2004.

“White electrophosphorescence from polymer blends”
presented by Alan Heeger, ICSM, Australia, June 28 to July 2, 2004.

“Structural characterization of InGaP nanocrystals by solid-state NMR technique,”
presented at the American Chemical Society Meeting, authors Berrettini, Raab, Gerbec, Chmelka, and Strouse, August 2004.

“Size-Dependent Structural Analysis of CdSe Nanocrystals Through Solid-State 77Se NMR,”
presented by Mia Berrettini at the NMR conference, ISMAR, October 2004.

“Colloidal quantum dots for white light generation,”

2003:
“Fabrication of cobalt nanocrystals in inverse PS-PVP micelles by rapid pyrolysis and heat treatment,”
presented by Seung-Heon Lee at the American Physical Society meeting, March 2003.
“Self-assembly of nanoparticles into periodic nanopatterns,”
presented by Seung-Heon Lee at the American Physical Society meeting, March 2003.

“High-performance PLEDs by novel hole injection polymer layer”
presented by Alan Heeger at the American Physical Society meeting, March 2003.

“Multilayer structures of polyelectrolytes and nanoparticles based on layer-by-layer (LBL) assembly and Langmuir Blodgett deposition,”
presented by Geoffrey Lowman at the American Chemical Society meeting, March 2003.

“Development and Benefits of Disordered Microsphere Assemblies for Use as Templates,”

“Improved Hybrid Optical Coatings: Polymethylmethacrylate Crosslinked by Silsesquioxane,”

“Excitation energy transfer from polyfuorene to fluorenone defects”
presented by Xiong Gong at the MRS meeting, San Francisco, April 20-26, 2003.

“Structure Directing in Organosilsesquioxane Hybrid Materials: PPSQ Resins and PMMA-SSQ IPN,”

“Polymer composites for light-emitting diodes”
presented by Alan Heeger at the SPIE annual meeting, San Diego, August 2003.

“Block-Type Copolymers of Ethylene and Polar Monomers,”
presented by Steve Diamanti at the Advances in Polyolefins conference, August 2003.

2002:
“High performance electrophosphorescent LEDs based on non-conjugated polymer”
presented by Alan Heeger at the Materials Research Society meeting, San Francisco, April 1-5, 2002.

“Polymer based electrophosphorescent LEDs”
presented by Alan Heeger, ICSM, Shanghai, July 2002.

“Controlled Non-morphology of Nanoparticles and Conducting Single-crystal films”
presented by Norma Alcantar, American Institute of Chemical Engineers meeting, November 2002.

“Stabilized Blue Emission from Polyfluorene-based Light Emitting Diodes: Elimination of Fluorenone Defects”
presented by Xiong Gong at the MRS Meeting, Boston, December 2002.