

# 49th Si Symposium: Celebrating the Chemistry of Bob West

Technical Program  
(Only presenters listed)

**Wednesday, May 30**  
Salon 8, Shaw Conference Centre

- 07:55 Welcome  
Chair, Kim Baines, Western University
- 08:00 *New Tricks of Isolable Silylenes in Small Molecule Activation*  
**Matthias Driess**, TU Berlin
- 08:20 *Reactions of Silylenes with Non-Enolizable Carbonyl Compounds in Solution*  
**Michael Son**, McMaster University
- 08:40 *Convenient Syntheses of Trichlorosilylated Organic Building Blocks*  
**Matthias Wagner**, Goethe-Universität Frankfurt
- 09:00 *Cyclic Silanols with Long Alkyl Chains*  
**Masafumi Unno**, Gunma University
- 09:20 *New Synthetic Pathway for Amide-Functional Organosilanes and Siloxanes*  
**Ferdinand Gonzaga**, Gelest
- 09:40 *Bob Inspired Chemistry - From Silolyradicals to the Most Stable Isomer of Disilabenzene*  
**Thomas Müller**, Institute of Chemistry, Carl von Ossietzky Universität Oldenburg
- 10:00 COFFEE BREAK  
Chair, Lisa Rosenberg, University of Victoria
- 10:20 *Si History*  
**Robert West**, Silatronix Inc.
- 11:00 *Luminescent Group 14 Metallafluorenes for Biological Applications*  
**Janet Braddock-Wilking**, University of Missouri-St. Louis
- 11:20 *Facile Activation of Small Molecules by Iminodisilenes*  
**Shigeyoshi Inoue**, Department of Chemistry, Catalysis Research Center and WACKER-Institute of Silicon Chemistry, Technische Universität München
- 11:40 *Luminescent Hexacoordinate Silicon Complexes*  
**Thomas Schmedake**, University of North Carolina - Charlotte
- 12:00 LUNCH  
Chair, Julian Koe, International Christian University
- 13:20 *Functional Silicone Networks via Thioacetal Linkages*  
**Ayodele Fatona**, McMaster University
- 13:40 *Silicone-Acrylic Copolymer*  
**Yuxia (Sonny) Liu**, Henkel Corporation
- 14:00 *Departure from Non-Conductivity of Silicone Elastomers*  
**Anne Skov**, DTU
- 14:20 *Do Silsesquioxane Cages and Polymers Offer Semiconducting Properties*  
**Richard Laine**, Department of Materials Science and Engineering, University of Michigan
- 14:40 *The Next Generation of Low Loss Optical Interconnects*  
**Adam Tomasik**, DowDuPont
- 15:00 *Exploration of the Role of Silicones in CNT and Metal Nanoparticle Conjugation*  
**Bhanu Chauhan**, William Paterson University NOT PRESENTED
- 15:20 COFFEE BREAK  
Chair, Paul Zelisko, Brock University
- 15:40 *The Effect of Dynasylan<sup>®</sup> Silane Adhesion Promoters on Adhesion of a 2K Pt Cured Silicone on Aluminum Substrates*  
**William Hunks**, Evonik Corporation
- 16:00 *Elastomeric Polysiloxane Coatings*  
**Farooq Ahmed**, CSL Silicones
- 16:20 *Amphiphilic Silicones with Broad-Spectrum Anti-Fouling Behavior*  
**Melissa Grunlan**, Texas A&M University
- 16:40 *Hydrolytically Stable Sugar Siloxanes*  
**Eric Joffre**, Dow
- 17:00 *Siloxane Phosphocholine Self-Assembled Bilayers*  
**Mark Frampton**, Brock University
- 17:20 *Synthesis of SiCl<sub>4</sub> from Alkyl Orthosilicates*  
**Dimitris Katsoulis**, Dow Chemical Company
- 17:40 END of SESSION

17:45-  
19:30 **Wednesday Poster Session and Reception**, Hall A, Shaw Conference Centre

- Si-1 *Functionalized Siloxanes*  
**Jonathan Bauer**, University of Regensburg
- Si-2 *Addition of Phosphorus Oxides to Ditetrelenes*  
**Maissa Belcina**, Western University
- Si-3 *Dynamic Covalent Schiff-Base Silicone Elastomers*  
**Robert Bui**, McMaster University
- Si-4 *Siloxane Phosphocholines as Potential Delivery Vehicles*  
**Mark Frampton**, Brock University
- Si-5 *On the Role of Silylium Ions in the Catalytic Deoxygenation of Biomass Derived Cellulosics*  
**Michel Gagne**, UNC Chapel Hill NOT PRESENTED
- Si-6 *Synthetic Routes to Silicone-Modified Soybean Oil Copolymers*  
**Cody Gale**, McMaster University
- Si-7 *Study of the Second Virial Coefficient in a Polar Solvent of a Functionalized and Quaternized Poly(dimethylsiloxane-co-methyl-hydrosiloxane)*  
**Antonio Guerra-Contreras**, Universidad de Guanajuato
- Si-8 *The Addition of Alkynes to Low-Valent Silicon Compounds: A Mechanistic Study*  
**Andrew Henry**, Western University
- Si-9 *Structure-Property Study of Hypervalent Silane Porphyrins for Light Harvesting Applications*  
**Burhan A Hussein**, Ryerson University
- Si-10 *Spectroscopic and Mechanistic Analysis of a Silsesquioxane as a Hydrogen-Bond Donor Catalyst*  
**Jake Jagannathan**, UC Davis
- Si-11 *Controlling Silicone Elastomer Structure: MDTQ Resins*  
**Shuai Liang**, McMaster University
- Si-12 *Controlled Synthesis of Silicone Block Polymer: Just Add Water*  
**Mengchen Liao**, McMaster University
- Si-13 *Solvation Experiments with Polysilicidates in Liquid Ammonia*  
**Corinna Lorenz**, Universität Regensburg
- Si-14 *Amine Functionalization in Ditetrelenes*  
**Sarah McOnie**, Western University
- Si-15 *Synthesis and Characterization of a Polydimethylsiloxane/Polyaniline (PDMS/PANI) Composite*  
**Miguel Melendez-Zamudio**, Universidad de Guanajuato
- Si-16 *Effect of Organosilicon Electrolytes on the Solid Electrolyte Interface Formed on Silicon (100) Wafers*  
**José Adrián Peña Hueso**, Silatronix, Inc.
- Si-17 *Organosilicon-Based Synthesis of New Functionalized Methylenebisphosphonic Acids as Prospective Bioactive Compounds*  
**Andrey A Prishchenko**, M.V. Lomonosov Moscow State University NOT PRESENTED
- Si-18 *Tunable Plasmon-Induced Hydrosilylation on Silicon Surfaces*  
**Chengcheng Rao**, University of Alberta
- Si-19 *A Mild Route to Poly(phenylsilylene)*  
**Lisa Rosenberg**, University of Victoria
- Si-20 *Free Radical Reactivity of Phosphaalkenes Towards Muonium Studied by  $\mu$ SR Spectroscopy*  
**Kerim Samedov**, University of British Columbia
- Si-21 *Attempted Silylations of  $[PCl_2N]_3$*   
**Claire Tessier**, University of Akron
- Si-22 *Metallosiloxanes for Photothermal Stability*  
**Adam C Tomasik**, DowDuPont
- Si-23 *Hydrosilylation of Carbonyl Compounds Catalyzed by Mono- and Tri-nuclear Platinum(0) Complexes*  
**Yoshitaka Tsuchido**, Tokyo Institute of Technology
- Si-24 *Facile Synthesis of Polydimethylsiloxane (PDMS) using Fluoride Initiator*  
**Michael Y Wong**, McMaster University

**Thursday, May 31**  
Salon 8, Shaw Conference Centre

- Chair, Scott Sieburth, Temple University
- 08:00 *Discovery and Progress in the Silicon-Based Cross-Coupling Reaction*  
**Tamejiro Hiyama**, Chuo University. Research and Development Initiative
- 08:40 *Evolution and Exploitation of Anion Relay Chemistry (ARC)*  
**Amos Smith**, University of Pennsylvania
- 09:00 *Silicon as an Adjunct in Synthetic Directed ortho Metalation Chemistry*  
**Victor Snieckus**, Queen's University
- 09:20 *The Substrate Control of the Tamao-Fleming Oxidation: Steric Control of Si-H Hydrolysis vs. C-Si Oxidation*  
**Austin Kelly**, University of California, Davis
- 09:40 *Main Group Catalysts in the Reduction of Organic Compounds*  
**Cathleen Crudden**, Queen's University
- 10:00 COFFEE BREAK
- Chair, Claire Tessier, University of Akron
- 10:20 *3D Printable, Rapid Cure Silicone Elastomers Prepared using Thiol-Ene "Click" Chemistry*  
**Sijia Zheng**, McMaster University
- 10:40 *Asymmetric Silylation: Mechanistic Investigations*  
**Sheryl Wiskur**, University of South Carolina
- 11:00 *Kinetics and Mechanisms of the Reactions of Transient Silylenes with Carbonyl Compounds*  
**William Leigh**, McMaster University
- 11:20 *Mechanistic Studies on the Chatani-Tobisu Decyanative Silylation Reaction*  
**Eric Keske**, University of Edinburgh
- 11:40 *Si in Ligand Design: Novel Structure and Reactivity involving Silyl Pincer Complexes of the Platinum Group Metals*  
**Laura Turculet**, Dalhousie University
- 12:00 LUNCH
- Chair, Paul Zelisko, Brock University
- 13:20 **Rio Tinto Award Lecture - Totally Radical Chemistry of Chalcogenides on Silicon Surfaces**  
**Jillian Buriak**, University of Alberta
- 14:00 *Conformational Dependence of Sigma Electron Delocalization in Linear Polysilanes*  
**Josef Michl**, University of Colorado; Academy of Sciences of the Czech Republic
- 14:20 *Solid-State Synthesis of Porous Silicon*  
**Mita Dasog**, Dalhousie University
- 14:40 *Strategic Synthesis of Crystalline Silicon Fragments*  
**Rebekka Klausen**, Johns Hopkins University
- 15:00 *Manifestation of Small Nanostructures in High Doped Silicon Wafer*  
**Priyanka Yogi**, Indian Institute of Technology Indore NOT PRESENTED
- 15:20 COFFEE BREAK
- Chair, Mita Dasog, Dalhousie University
- 15:40 *Coverage, Mechanism, and Electronics Study of Si-S, Si-Se and Si-Te-bound Si(111) Surfaces Formed via UV Irradiation*  
**Minjia Hu**, University of Alberta
- 16:00 *Advanced Electrode Materials for High Energy Lithium-Ion Batteries*  
**Zhongwei Chen**, University of Waterloo
- 16:20 *Mechanochemical Formation of Silicon Nanoparticles through RHEBM*  
**Mark Fink**, Tulane University
- 16:40 *Directions in Uncharted Territory - Blazing the Polysilane Trail*  
**Julian Koe**, International Christian University
- 17:00 Student Oral and Poster Awards Presentations
- 17:20 END of SESSION
- 19:00 Pre-Banquet Reception, Riverview Room Patio, Shaw Conference Centre
- 19:30 Banquet, Riverview Room, Shaw Conference Centre