

Jillian M. Buriak, Ph.D.

Canada Research Chair, Professor of Chemistry, Editor-in-Chief, *Chemistry of Materials* (ACS)

Department of Chemistry

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PRESENT RESEARCH AREAS

- i. Self-assembly and nanopatterning of technologically relevant materials via block copolymer self-assembly (directed self-assembly)
- ii. Solar energy conversion and storage – organic photovoltaics, earth-abundant nanoparticle-based absorbers, nanoparticle solar cells
- iii. Surface chemistry of technologically relevant semiconductor surfaces – mechanistic studies, surface nanopatterning, interfacing of molecules and materials
- iv. Catalysis - Plasmon-driven reactivity, catalysis applied to surface functionalization, combinatorial screening of catalysts for fuel/energy applications

EDUCATION

- 6/1995 - 6/1997 **The Scripps Research Institute**, La Jolla, CA
Post-doctoral research associate in the laboratory of Prof. M. Reza Ghadiri
- 6/1992 - 5/1995 **Université Louis Pasteur**, Strasbourg, France
Ph.D. in organometallic chemistry
Title: Homogeneous Catalytic Hydrogenation in Micellar Media
Thesis Advisor: Professor John A. Osborn
- 9/1991 - 6/1992 **Université Louis Pasteur**, Strasbourg, France
D.E.A. in Transition Metal Chemistry and Molecular Engineering, with honors
- 9/1986 - 6/1990 **Harvard University**, Cambridge, MA, U.S.A.
B.A. in chemistry, with honors

RESEARCH EXPERIENCE

- 7/2003 - present **National Institute for Nanotechnology, Canada**
Group Leader, National Research Council
- 7/2003 - present **University of Alberta, Canada**
Professor of Chemistry and Canada Research Chair
- 8/2001 - 7/2003 **Purdue University, West Lafayette, IN**
Associate professor of chemistry (with tenure)
- 8/1997 - 8/2001 **Purdue University, West Lafayette, IN**
Assistant professor of chemistry
- 6/1995 - 6/1997 **The Scripps Research Institute**, La Jolla, CA
Post-doctoral research associate in the laboratory of Prof. M. Reza Ghadiri
- 9/1991 - 5/1995 **Université Louis Pasteur**, Strasbourg, France
Ph.D. with John Osborn (deceased)

Curriculum vitae, August, 2017

- 6/1990 - 8/1990 **ICI Europa**, Kortenberg, Belgium
Summer ICI Americas Fellow
- 2/1989 - 6/1990 **Harvard University**, Cambridge, U.S.A.
Undergraduate research work with Andrew R. Barron (now at Rice University)

TEACHING EXPERIENCE

- 8/2004 - present **University of Alberta**, Edmonton, AB
Wide range of courses, from first year to advanced graduate classes (inorganic chemistry, materials science, nanoscience)
- 1/1998 - 7/2003 **Purdue University**, West Lafayette, IN
Wide range of courses from large first-year classes to small, specialized graduate level courses
- 9/1990 - 2/1991 **Nasinu Secondary School**, Suva, Fiji
Taught high school chemistry, biology, mathematics; assisted the Fijian Government in developing science teaching materials and training science teachers; funded by Harvard-Radcliffe College
- 2/1989 - 6/1990 **Harvard University**, Cambridge, U.S.A.
Teaching Fellow in chemistry

AWARDS AND RECOGNITION

- 05/2017 **E. W. R. Steacie Award** from the Canadian Society for Chemistry
www.cheminst.ca/awards/csc-awards/ewr-steacie-award
- 04/2016 **Burghausen Chemistry Award**, from the city of Burghausen, Germany
- 10/2015-09/2022 **Canada Research Chair of Nanomaterials for Energy** (Tier I)
- 06/2015 **Arthur Doolittle Award** from the Polymer Materials Science and Engineering Division (PMSE), American Chemical Society
- 01/2015 **Senior Fellow of the Canadian Institute for Advanced Research** (CIFAR)
- 10/2014 **Killam Annual Professorship**
- 04/2014-03/2019 **Alberta Innovates Industrial Research Chair** of Solar Energy, Solar Fuels
- 05/2013 **Clara Benson Award** from the Canadian Society for Chemistry
- 12/2009 **Fellow of the American Association for the Advancement of Science**
- 09/2009 **Fellow of the Royal Society of Canada** (FRSC)
- 10/2008 **Canada Research Chair of Nanomaterials** (Tier I)
- 03/2007-03/2009 **E. W. R. Steacie Memorial Fellowship, NSERC**. One of 6 recipients from across Canada, across all disciplines of science/engineering.
- 03/2006 **Faculty of Science Research Prize**, University of Alberta
- 11/2005 **Martha Cook Piper Research Prize**, University of Alberta
- 07/2005 **Fellow of the Royal Society of Chemistry** (FRSC, UK)
- 05/2005 **Rutherford Memorial Medal in Chemistry**. Awarded annually by the Royal

- Society of Canada (www.rsc.ca) to one chemist under age 40.
- 02/2005 **WISET (Women in Science, Engineering and Technology) Fellow.** Chosen by the Royal Scientific Societies of Canada and Japan to be Canada's first representative, and give a lecture series in Japan
- 01/2005 **Young Global Leader, World Economic Forum.** One of 237 people worldwide, under 40, chosen by the World Economic Forum (of Davos, Switzerland)
- 05/2005 **Canada Research Chair of Inorganic and Nanoscale Materials (Tier II)**
- 04/2004 **Canada's Top 40 Under 40.** One of 40 chosen from business, academia, medicine and law in Canada, under age 40 by the Globe and Mail
- 03/2003 **ACS Pure Chemistry Award**
- 05/2002-05/2004 **Camille and Henry Dreyfus Teacher-Scholar Award**
- 09/2001 **Fresenius Award.** National US award presented to a scientist in chemical science areas under age 35, by Phi Lambda Upsilon
- 04/2000-04/2002 **Cottrell Teacher-Scholar**
- 10/2000-10/2001 **3M Untenured Faculty Award**
- 04/2000 **School of Science Outstanding Undergraduate Teaching Award**
- 04/2000-04/2002 **Alfred P. Sloan Foundation Fellow**
- 04/1999-03/2003 **National Science Foundation Career Award**
- 8/1997-8/2002 **Camille and Henry Dreyfus Foundation, New Faculty Award**
- 6/1995-6/1997 **Natural Science and Engineering Research Council Postdoctoral (NSERC) Fellowship.** Two year post-doctoral fellowship from the Canadian government
- 9/1991-5/1995 **French Government Scholar (Boursière du Gouvernement Français, Ministère des Affaires Etrangères).** Doctoral studies fully funded by the Government of France
- 2/1994-5/1995 **CIES Fellowship.** Research fellowship from the Centre International des Étudiants et Stagiaires
- 5/1994 **The International Precious Metals Institute Award**
- 9/1990-2/1991 **Catherine Innes Ireland Fellowship.** Harvard-Radcliffe fellowship used for teaching high school science courses and preparing teaching materials in Fiji.
- 6/1990-8/1990 **ICI International Fellow, Kortenberg, Belgium**
- 6/1990 **Danforth Teaching Award, Harvard University**

EDITORIAL DUTIES

- 1/2014 - present **Editor-in-Chief (EIC), *Chemistry of Materials*.** Journal published by the American Chemical Society: Impact Factor = 9.4, Web of Science percentile = top 5.7% of journals in area, EIC oversees of a team of 17 Associate Editors (AEs) and delocalized ACS support staff. ~6000 papers per year are reviewed, and distributed to the AEs.

- 9-12/2013 **Associate Editor, *Chemistry of Materials***. Handling of all aspects of the editorial process (referee choice, acceptance/rejection, ~40 manuscripts per month).
- 8/2013 - present **Editorial Board Member** for *ACS Nano, Advanced Materials*
- 1/2009 - 9/2013 **Associate Editor, *ACS Nano***. Handling of all aspects of the editorial process (referee choice, acceptance/rejection) of minimum 400 papers/year.
- 2004 - 2008 **Board of Reviewing Editors, *Science***. Making recommendations to the editors of *Science* regarding submissions; handled 7-10 papers/week.

PUBLICATIONS

h-index = 50 (Google Scholar, 10600 citations), 43 (Web of Science), *i10*-index = 110

Independent, 1998-present

119. Cao, B.; He, X.; Sorge, J.; Lalany, A.; Ahadi, K.; Afshar, A.; Olsen, B. C.; Mobarak, M. H.; Li, P.; Cadien, K.; Brett, M. J.; Lubner, E. J.; Buriak, J. M. Understanding the Effects of a High Surface Area Nanostructured ITO Electrode on Organic Solar Cell Performance, *ACS Appl. Mater. Interfaces*, in revision (am-2017-10610z)
118. Xie, H.; Kalisvaart, P.; Olsen, B. C.; Lubner, E. J.; Buriak, J. M. Sn-Bi-Sb Alloys as Anode Materials for Sodium Ion Batteries. *J. Mater. Chem. A*, **2017**, *5*, 9661-9670.
117. Jin, C.; Olsen, B. C.; Lubner, E. J.; Buriak, J. M. Preferential Alignment of Incommensurate Block Copolymer Dot Arrays Forming Moire Superstructures. *ACS Nano*, **2017**, *11*, 3237-3246.
116. Jin, C.; Olsen, B. C.; Lubner, E. J.; Buriak, J. M. Nanopatterning via Solvent Vapor Annealing of Block Copolymer Thin Films. *Chem. Mater.*, **2017**, *29*, 176-188.
115. Liu, F.; Olsen, B. C.; Lubner, E. J.; Buriak, J. M. Polymers, Plasmons & Patterns – Mechanism of Plasmon-induced Hydrosilylation on Silicon. *Chem. Mater.*, **2016**, *28*, 9158-9168.
114. Jin, C.; Olsen, B. C.; Wu, N. L. Y.; Buriak, J. M.; Lubner, E. J. Sequential Nanopatterned Block Copolymer Self-Assembly on Surfaces. *Langmuir*, **2016**, *32*, 5890-5898.
113. Cao, B.; He, X.; Fetterly, C.; Olsen, B. C.; Lubner, E. J.; Buriak, J. M. Role of Interfacial Layers in Organic Solar Cells: Energy Level Pinning versus Phase Segregation. *ACS Appl. Mater. Interfaces*, **2016**, *8*, 18238-18248.
112. Hu, M.; Liu, F.; Buriak, J. M. Expanding the Repertoire of Molecular Linkages to Silicon: Si-S, Si-Se, and Si-Te Bonds. *ACS Appl. Mater. Interfaces*, **2016**, *8*, 11091-11099.
111. Jeyakanthan, M.; Meloncelli, P. J.; Zou, L.; Lowary, T. L.; Larsen, I.; Maier, S.; Tao, S.; Rusch, J.; Chinnock, R.; Shaw, N.; Burch, M.; Beddows, K.; Addonzio, L.; Zuckerman, W.; Pahl, E.; Rutledge, J.; Kanter, K. K. R.; Cairo, C. W.; Buriak, J. M.; Ross, D.; Rebeyka, I.; West, L. J. ABH-glycan microarray characterizes ABO subtype antibodies: fine specificity of immune tolerance after ABO-incompatible transplantation. *Am. J. Transplant.*, **2016**, *16*, 1548-1558.
110. Slaney, A. E.; Dijke, I. E.; Jeyakanthan, M.; Li, C.; Zou, L.; Plaza-Alexander, P.; Meloncelli, P. J.; Bau, J.; Allan, L. L.; Lowary, T. L.; West, L. J.; Cairo, C. W.; Buriak, J. M. Conjugation of A and B Blood Group Structures to Silica Microparticles for the Detection of Antigen-Specific B Cells. *Bioconjugate Chem.*, **2016**, *27*, 705-715.
109. Bau, J. A.; Lubner, E. J.; Buriak, J. M. Oxygen Evolution Catalyzed by Nickel-Iron Oxide Nanocrystals with a Non-Equilibrium Phase. *ACS Appl. Mater. Interfaces*, **2015**, *7*, 19755-19763.
108. Murphy, J. N.; Harris, K. D.; Buriak, J. M. Automated Defect and Correlation Length Analysis of Block Copolymer Thin Film Patterns. *PLoS One*, **2015**, *10*, e0133088.
107. Buriak, J. M.; Sikder, M. D. H. From Molecules to Surfaces: Radical-Based Mechanisms of Si-S and Si-Se Bond Formation on Silicon. *J. Am. Chem. Soc.* **2015**, *137*, 9730-9738.
106. He, X.; Cao, B.; Hauger, T. C.; Kang, M.; Gusarov, S.; Lubner, E. J.; Buriak, J. M. Donor-Acceptor Small Molecules for Organic Photovoltaics: Single-Atom Substitution (Se or S). *ACS Appl. Mater.*

- Interfaces* **2015**, 7, 8188–8199.
105. Liu, F.; Lubber, E. J.; Huck, L. A.; Olsen, B. C.; Buriak, J. M. Nanoscale Plasmonic Stamp Lithography on Silicon. *ACS Nano* **2015**, 9, 2184–2193.
 104. Mobarok, M. H.; Buriak, J. M. Elucidating the Surface Chemistry of Zinc Phosphide Nanoparticles Through Ligand Exchange. *Chem. Mater.* **2014**, 26, 4653–4661.
 103. Bau, J. A.; Li, P.; Marengo, A. J.; Trudel, S.; Olsen, B. C.; Lubber, E. J.; Buriak, J. M. Nickel/Iron Oxide Nanocrystals with a Nonequilibrium Phase: Controlling Size, Shape, and Composition. *Chem. Mater.* **2014**, 26, 4796–4804.
 102. Jin, C.; Murphy, J. N.; Harris, K. D.; Buriak, J. M. Deconvoluting the Mechanism of Microwave Annealing of Block Copolymer Thin Films. *ACS Nano* **2014**, 8, 3979–3991.
 101. Mobarok, M. H.; Lubber, E. J.; Bernard, G. M.; Peng, L.; Wasylshen, R. E.; Buriak, J. M. Phase-Pure Crystalline Zinc Phosphide Nanoparticles: Synthetic Approaches and Characterization. *Chem. Mater.* **2014**, 26, 1925–1935.
 100. Buriak, J. M. Illuminating Silicon Surface Hydrosilylation: An Unexpected Plurality of Mechanisms. *Chem. Mater.* **2014**, 26, 763–772.
 99. Hauger, T. C.; Al-Rafia, S. M. I.; Buriak, J. M. Rolling Silver Nanowire Electrodes: Simultaneously Addressing Adhesion, Roughness, and Conductivity. *ACS Appl. Mater. Interfaces* **2013**, 5, 12663–12671.
 98. Lubber, E. J.; Mobarok, M. H.; Buriak, J. M. Solution-Processed Zinc Phosphide (α -Zn₃P₂) Colloidal Semiconducting Nanocrystals for Thin Film Photovoltaic Applications. *ACS Nano* **2013**, 7, 8136–8146.
 97. Lubber, E. J.; Buriak, J. M. Reporting Performance in Organic Photovoltaic Devices. *ACS Nano* **2013**, 7, 4708–4714.
 96. Wu, N. L. Y.; Harris, K. D.; Buriak, J. M. Conversion of Bilayers of PS-B-PDMS Block Copolymer into Closely Packed, Aligned Silica Nanopatterns. *ACS Nano* **2013**, 7, 5595–5606.
 94. Tait, J. G.; Worfolk, B. J.; Maloney, S. A.; Hauger, T. C.; Elias, A. L.; Buriak, J. M.; Harris, K. D. Spray Coated High-Conductivity PEDOT:PSS Transparent Electrodes for Stretchable and Mechanically-Robust Organic Solar Cells. *Sol. Energy Mater. Sol. Cells* **2013**, 110, 98–106.
 93. Jeyakanthan, M.; Meloncelli, P.; Tollenaar, S.; Larsen, I.; Lowary, T. L.; Cairo, C. W.; Buriak, J. M.; West, L. J. Fine Specificity of B-Cell Tolerance to Blood Group Antigens Following ABO-Incompatible (Aboi) Heart Transplantation: 2304. *Transplantation*, **2012**, 10S, 356-357.
 92. Huck, L. A.; Buriak, J. M. UV-Initiated Hydrosilylation on Hydrogen-Terminated Silicon (111): Rate Coefficient Increase of Two Orders of Magnitude in the Presence of Aromatic Electron Acceptors. *Langmuir* **2012**, 28, 16285–16293.
 91. Deng, X.; Buriak, J. M.; Dai, P.-X.; Wan, L.-J.; Wang, D. Block Copolymer-Templated Chemical Nanopatterning on Pyrolyzed Photoresist Carbon Films. *Chem. Commun.* **2012**, 48, 9741–9743.
 90. Beckers, N. A.; Huynh, S.; Zhang, X.; Lubber, E. J.; Buriak, J. M. Screening of Heterogeneous Multimetallic Nanoparticle Catalysts Supported on Metal Oxides for Mono-, Poly-, and Heteroaromatic Hydrogenation Activity. *ACS Catal.* **2012**, 2, 1524–1534.
 89. Li, W.; Worfolk, B. J.; Li, P.; Hauger, T. C.; Harris, K. D.; Buriak, J. M. Self-Assembly of Carboxylated Polythiophene Nanowires for Improved Bulk Heterojunction Morphology in Polymer Solar Cells. *J. Mater. Chem.* **2012**, 22, 11354–11363.
 88. Sayed, S. Y.; Wang, F.; Malac, M.; Li, P.; Wang, D.; Buriak, J. Preferential Face Deposition of Gold Nanoparticles on Silicon Nanowires by Galvanic Displacement. *CrystEngComm* **2012**, 14, 5230–5234.
 87. Worfolk, B. J.; Hauger, T. C.; Harris, K. D.; Rider, D. A.; Fordyce, J. A. M.; Beaupré, S.; Leclerc, M.; Buriak, J. M. Work Function Control of Interfacial Buffer Layers for Efficient and Air-Stable Inverted Low-Bandgap Organic Photovoltaics. *Adv. Energy Mater.* **2012**, 2, 361–368.
 86. Wu, N. L. Y.; Zhang, X.; Murphy, J. N.; Chai, J.; Harris, K. D.; Buriak, J. M. Density Doubling of Block Copolymer Templated Features. *Nano Lett.* **2012**, 12, 264–268.
 85. Huck, L. A.; Buriak, J. M. Toward a Mechanistic Understanding of Exciton-Mediated

- Hydrosilylation on Nanocrystalline Silicon. *J. Am. Chem. Soc.* **2012**, *134*, 489–497.
84. Thomas, M.; Worfolk, B. J.; Rider, D. A.; Taschuk, M. T.; Buriak, J. M.; Brett, M. J. Controlling C60 Fullerene Nanocolumn Morphology for Organic Photovoltaic Applications. *Photovoltaic Specialists Conference (PVSC)*, **2011**, 37th IEEE, 000744-000747.
 83. Zhang, X.; Murphy, J. N.; Wu, N. L. Y.; Harris, K. D.; Buriak, J. M. Rapid Assembly of Nanolines with Precisely Controlled Spacing from Binary Blends of Block Copolymers. *Macromolecules* **2011**, *44*, 9752–9757.
 82. Chen, Q.; Worfolk, B. J.; Hauger, T. C.; Al-Atar, U.; Harris, K. D.; Buriak, J. M. Finely Tailored Performance of Inverted Organic Photovoltaics through Layer-by-Layer Interfacial Engineering. *ACS Appl. Mater. Interfaces* **2011**, *3*, 3962–3970.
 81. Worfolk, B. J.; Rider, D. A.; Elias, A. L.; Thomas, M.; Harris, K. D.; Buriak, J. M. Bulk Heterojunction Organic Photovoltaics Based on Carboxylated Polythiophenes and PCBM on Glass and Plastic Substrates. *Adv. Funct. Mater.* **2011**, *21*, 1816–1826.
 80. Thomas, M.; Worfolk, B. J.; Rider, D. A.; Taschuk, M. T.; Buriak, J. M.; Brett, M. J. C60 Fullerene Nanocolumns–Polythiophene Heterojunctions for Inverted Organic Photovoltaic Cells. *ACS Appl. Mater. Interfaces* **2011**, *3*, 1887–1894.
 79. Zhang, X.; Qiao, Y.; Xu, L.; Buriak, J. M. Constructing Metal-Based Structures on Nanopatterned Etched Silicon. *ACS Nano* **2011**, *5*, 5015–5024.
 78. Slaney, A. M.; Wright, V. A.; Meloncelli, P. J.; Harris, K. D.; West, L. J.; Lowary, T. L.; Buriak, J. M. Biocompatible Carbohydrate-Functionalized Stainless Steel Surfaces: A New Method For Passivating Biomedical Implants. *ACS Appl. Mater. Interfaces* **2011**, *3*, 1601–1612.
 77. Rider, D. A.; Tucker, R. T.; Worfolk, B. J.; Krause, K. M.; Lalany, A.; Brett, M. J.; Buriak, J. M.; Harris, K. D. Indium Tin Oxide Nanopillar Electrodes in Polymer/Fullerene Solar Cells. *Nanotechnology* **2011**, *22*, 085706.
 76. Sayed, S. Y.; Buriak, J. M. Epitaxial Growth of Nanostructured Gold Films on Germanium via Galvanic Displacement. *ACS Appl. Mater. Interfaces* **2010**, *2*, 3515–3524.
 75. Zhang, X.; Harris, K. D.; Wu, N. L. Y.; Murphy, J. N.; Buriak, J. M. Fast Assembly of Ordered Block Copolymer Nanostructures through Microwave Annealing. *ACS Nano* **2010**, *4*, 7021–7029.
 74. Mizuno, H.; Buriak, J. M. Building Upon Patterned Organic Monolayers Produced via Catalytic Stamp Lithography. *ACS Appl. Mater. Interfaces* **2010**, *2*, 2301–2307.
 73. McClure, S. A.; Worfolk, B. J.; Rider, D. A.; Tucker, R. T.; Fordyce, J. A. M.; Fleischauer, M. D.; Harris, K. D.; Brett, M. J.; Buriak, J. M. Electrostatic Layer-by-Layer Assembly of CdSe Nanorod/Polymer Nanocomposite Thin Films. *ACS Appl. Mater. Interfaces* **2010**, *2*, 219–229.
 72. Li, Y.; Wang, D.; Buriak, J. M. Molecular Layer Deposition of Thiol–Ene Multilayers on Semiconductor Surfaces. *Langmuir* **2010**, *26*, 1232–1238.
 71. Dehm, N. A.; Zhang, X.; Buriak, J. M. Screening of Bimetallic Heterogeneous Nanoparticle Catalysts for Arene Hydrogenation Activity under Ambient Conditions. *Inorg. Chem.* **2010**, *49*, 2706–2714.
 70. Rider, D. A.; Worfolk, B. J.; Harris, K. D.; Lalany, A.; Shahbazi, K.; Fleischauer, M. D.; Brett, M. J.; Buriak, J. M. Stable Inverted Polymer/Fullerene Solar Cells Using a Cationic Polythiophene Modified PEDOT:PSS Cathodic Interface. *Adv. Funct. Mater.* **2010**, *20*, 2404–2415.
 69. Krause, K. M.; Taschuk, M. T.; Harris, K. D.; Rider, D. A.; Wakefield, N. G.; Sit, J. C.; Buriak, J. M.; Thommes, M.; Brett, M. J. Surface Area Characterization of Obliquely Deposited Metal Oxide Nanostructured Thin Films. *Langmuir* **2010**, *26*, 4368–4376.
 68. McClure, S. A.; Buriak, J. M.; DiLabio, G. A. Transport Properties of Thiophenes: Insights from Density-Functional Theory Modeling Using Dispersion-Correcting Potentials. *J. Phys. Chem. C* **2010**, *114*, 10952–10961.
 67. Sayed, S. Y.; Wang, F.; Malac, M.; Meldrum, A.; Egerton, R. F.; Buriak, J. M. Heteroepitaxial Growth of Gold Nanostructures on Silicon by Galvanic Displacement. *ACS Nano* **2009**, *3*, 2809–2817.
 66. Mizuno, H.; Buriak, J. M. Nanoscale Patterning of Organic Monolayers by Catalytic Stamp

- Lithography: Scope and Limitations. *ACS Appl. Mater. Interfaces* **2009**, *1*, 2711–2720.
65. Rider, D. A.; Harris, K. D.; Wang, D.; Bruce, J.; Fleischauer, M. D.; Tucker, R. T.; Brett, M. J.; Buriak, J. M. Thienylsilane-Modified Indium Tin Oxide as an Anodic Interface in Polymer/Fullerene Solar Cells. *ACS Appl. Mater. Interfaces* **2009**, *1*, 279–288.
 64. Fischer, L. M.; Wright, V. A.; Guthy, C.; Yang, N.; McDermott, M. T.; Buriak, J. M.; Evoy, S. Specific detection of proteins using nanomechanical resonators. *Sens. Actuators, B*, **2008**, *B134*, 613–617.
 63. Mizuno, H.; Buriak, J. M. Catalytic Stamp Lithography for Sub-100 Nm Patterning of Organic Monolayers. *J. Am. Chem. Soc.* **2008**, *130*, 17656–17657.
 62. Buswell, S. C.; Wright, V. A.; Buriak, J. M.; Van, V.; Evoy, S. Specific Detection of Proteins using Photonic Crystal Waveguides. *Opt. Express*, **2008**, *16*, 15949–15957.
 61. Chai, J.; Taschuk, M. T.; Brett, M. J.; Buriak, J. M. Large Area Assembled Periodic Nanoarrays by Block Copolymer Templating and Glancing Angle Deposition. *Proceedings of SPIE*, **2008**, *7041*, 704111/1-704111/10.
 60. Sayed, S.; Wang, F.; Malac, M.; Egerton, R.; Buriak, J. Synthesis and Interfacial Characterization of Au Nanoparticles on Si Nanowires. *Microsc. Microanal.*, **2008**, *14*, 302–303.
 59. Sayed, S. Y.; Daly, B.; Buriak, J. M. Characterization of the Interface of Gold and Silver Nanostructures on InP and GaAs Synthesized via Galvanic Displacement. *J. Phys. Chem. C* **2008**, *112*, 12291–12298.
 58. Chai, J.; Buriak, J. M. Using Cylindrical Domains of Block Copolymers To Self-Assemble and Align Metallic Nanowires. *ACS Nano* **2008**, *2*, 489–501.
 57. Chai, J.; Wang, D.; Fan, X.; Buriak, J. M. Assembly of Aligned Linear Metallic Patterns on Silicon. *Nat. Nano.* **2007**, *2*, 500–506.
 56. Aizawa, M.; Buriak, J. M. Block Copolymer Templated Chemistry for the Formation of Metallic Nanoparticle Arrays on Semiconductor Surfaces. *Chem. Mater.* **2007**, *19*, 5090–5101.
 55. Dice, G. D.; Brett, M. J.; Wang, D.; Buriak, J. M. Fabrication and Characterization of an Electrically Variable, Nanospring Based Interferometer. *Appl. Phys. Lett.* **2007**, *90*, 253101.
 54. Zhang, J.; Gao, Y.; Hanrath, T.; Korgel, B. A.; Buriak, J. M. Block Copolymer Mediated Deposition of Metal Nanoparticles on Germanium Nanowires. *Chem. Commun. (Camb.)* **2007**, 1438–1440.
 53. Qiao, Y.; Wang, D.; Buriak, J. M. Block Copolymer Templated Etching on Silicon. *Nano Lett.* **2007**, *7*, 464–469.
 52. Zhang, J.; Gao, Y.; Alvarez-Puebla, R. A.; Buriak, J. M.; Fenniri, H. Synthesis and SERS Properties of Nanocrystalline Gold Octahedra Generated from Thermal Decomposition of HAuCl₄ in Block Copolymers. *Adv. Mater.* **2006**, *18*, 3233–3237.
 51. Wang, D.; Buriak, J. M. Trapping Silicon Surface-Based Radicals. *Langmuir* **2006**, *22*, 6214–6221.
 50. Aizawa, M.; Buriak, J. M. Nanoscale Patterning of Two Metals on Silicon Surfaces Using an ABC Triblock Copolymer Template. *J. Am. Chem. Soc.* **2006**, *128*, 5877–5886.
 49. Li, Y. H.; Buriak, J. M. Dehydrogenative Silane Coupling on Silicon Surfaces via Early Transition Metal Catalysis. *Inorg. Chem.* **2006**, *45*, 1096–1102.
 48. Vazquez-Serrano, L. D.; Owens, B. T.; Buriak, J. M. The Search for New Hydrogenation Catalyst Motifs Based on N-Heterocyclic Carbene Ligands. *Inorg. Chim. Acta* **2006**, *359*, 2786–2797.
 47. Knagge, K.; Smith, J. R.; Smith, L. J.; Buriak, J.; Raftery, D. Analysis of Porosity in Porous Silicon Using Hyperpolarized ¹²⁹Xe Two-Dimensional Exchange Experiments. *Solid State Nucl. Magn. Reson.* **2006**, *29*, 85–89.
 46. Buriak, J. M. High Surface Area Silicon Materials: Fundamentals and New Technology. *Philos. Trans. R. Soc., A* **2006**, *364*, 217–225.
 45. Hormozi Nezhad, M. R.; Aizawa, M.; Porter, L. A.; Ribbe, A. E.; Buriak, J. M. Synthesis and Patterning of Gold Nanostructures on InP and GaAs via Galvanic Displacement. *Small* **2005**, *1*, 1076–1081.
 44. Wang, D.; Buriak, J. M. Electrochemically Driven Organic Monolayer Formation on Silicon

- Surfaces Using Alkylammonium and Alkylphosphonium Reagents. *Surf. Sci.*, **2005**, *590*, 154–161.
43. Aizawa, M.; Buriak, J. M. Block Copolymer-Templated Chemistry on Si, Ge, InP, and GaAs Surfaces. *J. Am. Chem. Soc.* **2005**, *127*, 8932–8933.
 42. Aizawa, M.; Cooper, A. M.; Malac, M.; Buriak, J. M. Silver Nano-Inkshuks on Germanium. *Nano Lett.* **2005**, *5*, 815–819.
 41. Buriak, J. M. Microfluidics: Magnetic Chaperones for Droplets. *Nat. Mater.* **2004**, *3*, 847–849.
 40. Baldauff, E. A.; Buriak, J. M. Optical Sensing of Amine Vapors With a Series of Tin Compounds. *Chem. Commun.* **2004**, 2028.
 39. Buriak, J. M. Chemistry with Nanoscale Perfection. *Science* **2004**, *304*, 692–693.
 38. Hurley, P. T.; Ribbe, A. E.; Buriak, J. M. Nanopatterning of Alkynes on Hydrogen-Terminated Silicon Surfaces by Scanning Probe-Induced Cathodic Electrografting. *J. Am. Chem. Soc.* **2003**, *125*, 11334–11339.
 37. Porter, Lon A.; Ribbe, A. E.; Buriak, J. M. Metallic Nanostructures via Static Plowing Lithography. *Nano Lett.* **2003**, *3*, 1043–1047.
 36. Porter, L. A.; Choi, H. C.; Schmeltzer, J. M.; Ribbe, A. E.; Elliott, L. C. C.; Buriak, J. M. Electroless Nanoparticle Film Deposition Compatible with Photolithography, Microcontact Printing, and Dip-Pen Nanolithography Patterning Technologies. *Nano Lett.* **2002**, *2*, 1369–1372.
 35. Vazquez-Serrano, L. D.; Owens, B. T.; Buriak, J. M. Catalytic Olefin Hydrogenation Using N-Heterocyclic Carbene-Phosphine Complexes of Iridium. *Chem. Commun.* **2002**, 2518–2519.
 34. Porter, L. A.; Choi, H. C.; Ribbe, A. E.; Buriak, J. M. Controlled Electroless Deposition of Noble Metal Nanoparticle Films on Germanium Surfaces. *Nano Lett.* **2002**, *2*, 1067–1071.
 33. Schmeltzer, J. M.; Porter, Lon A.; Stewart, M. P.; Buriak, J. M. Hydride Abstraction Initiated Hydrosilylation of Terminal Alkenes and Alkynes on Porous Silicon. *Langmuir* **2002**, *18*, 2971–2974.
 32. Stewart, M. P.; Buriak, J. M. New Approaches Toward the Formation of Silicon-Carbon Bonds on Porous Silicon. *Comm. Inorg. Chem.* **2002**, *23*, 179–203.
 31. Buriak, J. M. Organometallic Chemistry on Silicon and Germanium Surfaces. *Chem. Rev.* **2002**, *102*, 1271–1308.
 30. Saghatelian, A.; Buriak, J. M.; Lin, V. S.; Ghadiri, M. R. Transition Metal Mediated Surface Modification of Porous Silicon. *Tetrahedron* **2001**, *57*, 5131–5136.
 29. Stewart, M. P.; Buriak, J. M. Exciton-Mediated Hydrosilylation on Photoluminescent Nanocrystalline Silicon. *J. Am. Chem. Soc.* **2001**, *123*, 7821–7830.
 28. Choi, H. C.; Buriak, J. M. Positive and Negative Photopatterning of Metal Oxides on Silicon via Bipolar Electrochemical Deposition. *Chem. Commun.* **2001**, 1614–1615.
 27. Buriak, J. M. Diamond Surfaces: Just Big Organic Molecules? *Angew. Chem. Int. Ed.* **2001**, *40*, 532–534.
 26. Stewart, M. P.; Robins, E. G.; Geders, T. W.; Three Methods for Stabilization and Functionalization of Porous Silicon Surfaces via Hydrosilylation and Electrografting Reactions. *Phys. Status Solidi A* **2000**, *182*, 109–115.
 25. Canham, L. T.; Stewart, M. P.; Buriak, J. M.; Reeves, C. L.; Anderson, M.; Squire, E. K. Derivatized Porous Silicon Mirrors: Implantable Optical Components with Slow Resorbability. *Phys. Status Solidi A* **2000**, *182*, 521–525.
 24. Choi, H. C.; Buriak, J. M. Preparation and Functionalization of Hydride Terminated Porous Germanium. *Chem. Commun.* **2000**, 1669–1670.
 23. Choi, K.; Buriak, J. M. Hydrogermylation of Alkenes and Alkynes on Hydride-Terminated Ge(100) Surfaces. *Langmuir* **2000**, *16*, 7737–7741.
 22. Choi, H. C.; Buriak, J. M. Effects of Organic Monolayer Formation on Electrochemiluminescence Behavior of Porous Silicon. *Chem. Mater.* **2000**, *12*, 2151–2156.
 21. Stewart, M. P.; Buriak, J. M. Chemical and Biological Applications of Porous Silicon Technology. *Adv. Mater.* **2000**, *12*, 859–869.

20. Buriak, J. M.; Klein, J. C.; Herrington, D. G.; Osborn, J. A. Probing the Mechanisms of Enantioselective Hydrogenation of Simple Olefins with Chiral Rhodium Catalysts in the Presence of Anions. *Chemistry* **2000**, *6*, 139–150.
19. Robins, E. G.; Stewart, M. P.; Buriak, J. M. Anodic and Cathodic Electrografting of Alkynes on Porous Silicon. *Chem. Commun.* **1999**, 2479–2480.
18. Buriak, J. M.; Stewart, M. P.; Geders, T. W.; Allen, M. J.; Choi, H. C.; Smith, J.; Raftery, D.; Canham, L. T. Lewis Acid Mediated Hydrosilylation on Porous Silicon Surfaces. *J. Am. Chem. Soc.* **1999**, *121*, 11491–11502.
17. Canham, L. T.; Reeves, C. L.; Newey, J. P.; Houlton, M. R.; Cox, T. I.; Buriak, J. M.; Stewart, M. P. Derivatized Mesoporous Silicon with Dramatically Improved Stability in Simulated Human Blood Plasma. *Adv. Mater.* **1999**, *11*, 1505–1507.
16. Buriak, J. M. Functionalization of Silicon Surfaces for Device Applications†. *J. Assoc. Laboratory Automation* **1999**, *4*, 36–39.
15. Wei, J.; Buriak, J. M.; Siuzdak, G. Desorption–Ionization Mass Spectrometry on Porous Silicon. *Nature* **1999**, *399*, 243–246.
14. Buriak, J. M. Organometallic Chemistry on Silicon Surfaces: Formation of Functional Monolayers Bound Through Si–C Bonds. *Chem. Commun.* **1999**, 1051–1060.
13. Holland, J. S.; Stewart, M. P. Metal Mediated Reactions on Porous Silicon Surfaces. *J. Solid State Chem.* **1999**, *147*, 251–258.
12. Buriak, J. M. Silicon Carbon Bonds on Porous Silicon Surfaces: One Step Closer To Device Applications. *Adv. Mater.* **1999**, *11*, 265–268.
11. Buriak, J. M.; Stewart, M. P.; Allen, M. J. Hydrosilylation Reactions on Porous Silicon Surfaces. In *Materials Research Symposium Proceedings*; MRS Online Proceedings Library, **1998**, Vol. 536, pp. 29–35.
10. Stewart, M. P.; Buriak, J. M. Photopatterned Hydrosilylation on Porous Silicon. *Angew. Chem. Int. Ed.* **1998**, *37*, 3257–3260.
9. Jillian M Buriak, M. J. A. Photoluminescence of Porous Silicon Surfaces Stabilized Through Lewis Acid Mediated Hydrosilylation. *J. Lumin.* **1998**, *80*, 29–35.
8. Buriak, J. M.; Stewart, M. P.; Allen, M. J. Functionalization of Porous Silicon Surfaces Through Hydrosilylation Reactions. In *Symposium F – Microcrystalline & Nanocrystalline Semiconductors - 1998*; MRS Online Proceedings Library, **1998**, Vol. 536.
7. Buriak, J. M.; Allen, M. J. Lewis Acid Mediated Functionalization of Porous Silicon with Substituted Alkenes and Alkynes. *J. Am. Chem. Soc.* **1998**, *120*, 1339–1340.

Graduate School and Post-Doc

6. Clark, T. D.; Buriak, J. M.; Kobayashi, K.; Isler, M. P.; McRee, D. E.; Ghadiri, M. R. Cylindrical β -Sheet Peptide Assemblies. *J. Am. Chem. Soc.* **1998**, *120*, 8949–8962.
5. Buriak, J. M.; Ghadiri, M. R. Self-Assembly of Peptide Based Nanotubes. *Mat. Sci. Eng. C* **1997**, *4*, 207–212.
4. Buriak, J. M.; Osborn, J. A. Studies on Catalytic Asymmetric Imine Hydrogenation in the Presence of Reverse Micelles: Enhanced Enantioselectivity due to Surfactant Head Group Coordination. *Organometallics* **1996**, *15*, 3161–3169.
3. Buriak, J. M.; Osborn, J. A. A Simple in Situ ^{31}P NMR Method for the Determination of the Enantiomeric Purity of Aromatic Substrates. *J. Chem. Soc., Chem. Commun.* **1995**, 689–690.

Undergraduate

2. Buriak, J. M.; Cheatham, L. K.; Gordon, R. G.; Graham, J. J.; Barron, A. R. The Use of Amines to Enhance the Volatility of Barium B-Diketonates: Chemical Vapor Deposition of Barium Oxide Thin Films. *Eur. J. Solid State Inorg. Chem.* **1992**, *29*, 43–50.
1. Buriak, J. M.; Cheatham, L. K.; Graham, J. J.; Gordon, R. G.; Barron, A. R. Increased Volatility of

Barium Metal Organics by the Use of Nitrogen Lewis Bases. In *Symposium E – Chemical Perspectives of Microelectronic Materials II*; MRS Online Proceedings Library; 1990; Vol. 204.

Book Chapters

4. Huck, L. T.; Buriak, J. M. Silicon-Carbon Bond Formation on Porous Silicon. In *Handbook of Porous Silicon*; Canham, L. T., Ed.; Springer, 2014; pp. 683–693.
3. Vazquez-Serrano, L. D.; Buriak, J. M. The Quest for Longevity and Stability of Iridium-Based Hydrogenation Catalysts. In *N-Heterocyclic Carbenes in Synthesis*; Nolan, S. P., Ed.; John Wiley and Sons, 2006.
2. Schmeltzer, J. M.; Buriak, J. M. Recent Developments in the Chemistry and Chemical Applications of Porous Silicon. In *The Chemistry of Nanomaterials: Synthesis, Properties and Applications*; Rao, C. N. R.; Muller, A.; Cheetham, A. K., Eds.; John Wiley and Sons, 2005.
1. Porter, L. A.; Buriak, J. M. Harnessing Synthetic Versatility Toward Intelligent Interfacial Design: Organic Functionalization of Nanostructured Silicon Surfaces. In *Chemistry of Nanostructured Materials*; Yang, P., Ed.; World Scientific, 2004.

Patents

17. Norfolk, B.; Chen, Q.; Buriak, J. M. Methods for Tailoring Electrode Work Function Using Interfacial Modifiers For Use In Organic Electronics. US Grant 9431612 B2, August 30, 2016. WO Application 2013006946 A1, January 1, 2013.
16. Al-Rafia, S. M. I.; Hauger, T. C.; Buriak, J. M.; Tevtia, A. K.; Abdelrahman, A. I. Compounds Containing Electron Rich and Electron Deficient Regions and Their Use in Organic Electronic Applications. US Grant 9543529 B2, January 10, 2017. KR Application 10-1722578, March 28, 2016. WO Application 2015121775 A1, August 20, 2015.
15. Al-Rafia, S. M. I.; Hauger, T. C.; Buriak, J. M.; Tevtia, A. K. Synthesis of New Small Molecules/Oligomers With High Conductivity and Absorption for Optoelectronic Application. US Grant 9444060 B2, September 13, 2016. WO Application 2015166360 A1, November 5, 2015.
14. West, L. J.; Lowary, T. L.; Buriak, J. M.; Daly, B.; Mylvaganam, J.; Meloncelli, P. J.; Wright, V. A.; Cooper, A. M. Methods and Systems for Inducing Immunologic Tolerance to Non-self Antigens. US Grant 8974793 B2, March 10, 2015. EP Application 2376115 A4, July 3, 2013. WO Application 2010066049 A1, June 17, 2010. CA Application 2746124, June 17, 2010.
13. Buriak, J. M.; Hauger, T. C.; Al-Rafia, S. M. I.; Tevtia, A. K.; Abdelrahman, A. I.; Odeh, I. Process for Making Materials with Micro- or Nanostructured Conductive Layers. EP Application 3028316 A1, June 8, 2016. WO Application 2015017349 A1. CN Application 105247697 A, January 13, 2016. US Application 20150037517 A1, February 5, 2015.
12. Norfolk, B. J.; Li, W.; Harris, K. D.; Buriak, J. M. Polymer Solar Cells and Functionalized Conjugated Polymers. US Application 20130276886 A1, October 24, 2013.
11. Buriak, J. M.; Rider, D.; Norfolk, B.; Harris, K. D. Functionalized Semiconducting Polymers For Use in Organic Photovoltaic Devices. US Application 20130276887 A1, October 24, 2013. WO Application 2012071641 A1, June 7, 2012.
10. Lowary, T. L.; Cairo, C. W.; West, L. J.; Buriak, J. M.; Meloncelli, P. J.; Jeyakanthan, M.; Slaney, A. M. Method and System for ABO Antibody Detection and Characterization. AU Application 2012304181, November 24, 2016. EP Application 2751574 A4, February 18, 2015. US Application 20140249051, September 4, 2014. WO Application 2013029181 A1, March 7, 2013. CA Application 2846666 A1, March 7, 2013.
9. Buriak, J.; Chai, J.; Harris, K.; Wu, N. L.; Zhang, X. Method for organizing a block copolymer. US Application 20120301674 A1, November 29, 2012.
8. Brett, M. J.; Buriak, J. M.; Fleischauer, M. D.; Gerein, N. J.; Harris, K. D.; McClure, S. A.; Rider, D. A. Photovoltaic Device Based on Conformal Coating of Columnar Structures. EP Application 2243172 A4, March 28, 2012. US Application 20090211632, August 27, 2009. WO Application 2009100519 A1, August 20, 2009. CA Application 2713910 A1, August 20, 2009.

7. Buriak, J. M.; Chai, J.; Harris, K.; Wu, N. L.; Zhang, X. Method for forming a block copolymer pattern. US Application 20110206905 A1, August 25, 2011.
6. Buriak, J. M.; Hurley, P. T. Patterned Functionalized Silicon Surfaces. US Grant 7091517 B2, August 15, 2006.
5. Staple, B.; Buriak, J. Surfactant-Enhanced Protection of Micromechanical Components from Galvanic Degradation. CN Grant 1495293 B, October 27, 2010. US Grant 7153440 B2, December 26, 2006. EP Patent Application 1403211 A3, September 14, 2005.
4. Buriak, J.; Siuzdak, G. E.; Wei, J. Improved Desorption/ionization of Analytes from Porous Light-Absorbing Semiconductor. EP Application 1166329 A4, March 23, 2005.
3. Siuzdak, G. E.; Buriak, J.; Wei, J. Desorption/ionization of Analytes from Porous Light-Absorbing Semiconductor. US Grant 6288390 B1, September 11, 2001. WO Application 2000054309 A1, September 14, 2000.
2. Buriak, J. M. Functionalized Porous Silicon Surfaces. EP Grant 1056548 B1, October 15, 2008. DE Grant 69939733 D1, November 27, 2008. US Grant 6358613 B1, March 19, 2002. WO Application 1999037409 A1, July 29, 1999.
1. Gordon, R. G.; Barron, A. R.; Buriak, J. M. Chemical Vapor Deposition Process Where an Alkaline Earth Metal Organic Precursor Material Is Volatilized in the Presence of an Amine or Ammonia and Deposited onto a Substrate. US Grant 5139999 A, August 18, 1992.

Selected Editorial Articles (2009-present)

93. Toro, C.; Buriak, J. M. That's a Wrap: Graphene-Wrapped Magnetite Anodes for Lithium Ion Batteries: Newest Members of the *Chemistry of Materials'* 1k Club. *Chem. Mater.*, **2017**, *29*, 6561-6562.
92. Toro, C.; Buriak, J. M. Rationally Assembling the Pieces of π Conjugated Polymers for Organic Electronics and Photovoltaics Antonio Facchetti - The Newest Member of the *Chemistry of Materials'* 1k Club. *Chem. Mater.*, **2017**, *29*, 6179-6180.
91. Schatz, G. C.; Scholes, G. D.; Stang, P. J.; Burrows, C. J.; Winnick, F. M.; Alivisatos, A. P.; Lieber, C. M.; Weiss, P. S.; Buriak, J. M. Virtual Issue Celebrating the Life and Career of Millie Dresselhaus The Queen of Carbon Science. *Chem. Mater.*, **2017**, *29*, 5017-5018.
90. Toro, C.; Buriak, J. M. Early in the Game: Graphene/Polyaniline Nanocomposites for Supercapacitors: Wu, Zhao, Zhang, and Zhang: New Members of the Chemistry of Materials' 1k Club. *Chem. Mater.*, **2017**, *29*, 4607-4608.
89. Kamat, P. V.; Schanze, K. S.; Buriak, J. M. Redox Flow Batteries. *ACS Energy Lett.*, **2017**, *2*, 1368-1368.
88. Buriak, J. M. Hot Materials Chemistry in a Cool Country: Open access virtual issue on materials chemistry by Canadian authors, in celebration of the 100th meeting of the Canadian Chemistry Conference. *Chem. Mater.*, **2017**, *29*, 4161-4161.
87. Toro, C.; Buriak, J. M. Pioneers in Two-Dimensional Nanostructured Materials: Confinement of Ultrathin Polymer Layers: New Members of Chemistry of Materials' 1k Club: Giannelis, Ishii, and Vaia. *Chem. Mater.*, **2017**, *29*, 3807-3808.
86. Kamat, P. V.; Bisquert, J.; Buriak, J. M. Lead-Free Perovskite Solar Cells. *ACS Energy Lett.*, **2017**, *2*, 904-905.
85. Li, Y.; Buriak, J. M.; Gogotsi, Y.; Hersam, M. C.; Kagan, C. R.; Weiss, P. S. Prof. Millie Dresselhaus (1930-2017), Carbon Nanomaterials Pioneer. *ACS Nano*, **2017**, *11*, 2307-2308.
84. Buriak, J. M. Goodbye Millie – Bidding Adieu to a Remarkable Materials Scientist: Remembering Mildred S. Dresselhaus. *Chem. Mater.*, **2017**, *29*, 1867-1867.
83. Buriak, J. M. Preprints – Yes You Can. *Chem. Mater.*, **2017**, *29*, 1447-1447.
82. Buriak, J. M.; Toro, C. Inaugural Lectureship of Chemistry of Materials. *Chem. Mater.*, **2017**, *29*, 907-907.
81. Buriak, J. M. Methods/Protocols – A New Article Type in *Chemistry of Materials*. *Chem. Mater.*, **2017**, *29*, 475-476.

80. Buriak, J. M. Preface to the Special Issue on Methods and Protocols in Materials Chemistry. *Chem. Mater.*, **2017**, *29*, 1-2.
79. Buriak, J. M. *Chemistry of Materials* in 2016 – Thank You to Our Authors, Reviewers, and Readers. *Chem. Mater.*, **2016**, *28*, 8843-8843.
78. Buriak, J. M. 2016 Chemistry Nobel Prize – Molecular Machines are Real. *Chem. Mater.*, **2016**, *28*, 7179-7180.
77. Toro, C.; Buriak, J. M. Updates to the Web Site of Chemistry of Materials. *Chem. Mater.*, **2016**, *28*, 6803-6803.
76. Buriak, J. M. Materials Chemistry and the Challenge to Develop Clean Energy Technologies: A New Editor To Respond to the Rapidly Growing Area of Electrochemical Energy Generation and Storage. *Chem. Mater.*, **2016**, *28*, 6425-6425.
75. Anderson, S. L.; Lubber, E. J.; Olsen, B. C.; Buriak, J. M. Substance over Subjectivity: Moving beyond the Histogram. *Chem. Mater.*, **2016**, *28*, 5973-5975.
74. Buriak, J. M. International Workshop on Materials Science and Engineering at KAIST: Big Ideas in Emerging Materials, August 2, 2016. *Chem. Mater.*, **2016**, *28*, 5567-5568.
73. Buriak, J. M. Evolution of Materials Chemistry: New Editors, New Areas of Expertise. *Chem. Mater.*, **2016**, *28*, 5173-5174.
72. Buriak, J. M. We Are the Community, Too. *Chem. Mater.*, **2016**, *28*, 4523-4523.
71. Buriak, J. M. Up-and-Coming Perspectives: Share the Excitement of Top Early Career Researchers in Materials Chemistry. *Chem. Mater.*, **2016**, *28*, 4083-4084.
70. Buriak, J. M.; Jones, C. W.; Kamat, P. V.; Schanze, K. S.; Schatz, G. C.; Scholes, G. D.; Weiss, P. S. Virtual Issue on Best Practices for Reporting the Properties of Materials and Devices: Record Well, Repeat Often, Report Correctly. *Chem. Mater.*, **2016**, *28*, 3525-3526.
69. Toro, C.; Buriak, J. M. Some Like It Hot: Development of Polymer Electrolyte Membranes for Use Above 100°C. *Chem. Mater.*, **2016**, *28*, 3235-3236.
68. Toro, C.; Buriak, J. M. Materials + Energy + International Collaboration = Fundamental Insights, Toupin, Brousse and Bélanger: New Members of the *Chemistry of Materials*' 1k Club. *Chem. Mater.*, **2016**, *28*, 2883-2885.
67. Buriak, J. M. Which Font Looks Best in a Figure? *Chem. Mater.*, **2016**, *28*, 689-690.
66. Toro, C.; Buriak, J. M. Solving Drug Delivery by Drawing from Two Different Fields: Materials Chemistry and Pharmacy: *Chemistry of Materials*' 1k Club: Maria Vallet-Regi. *Chem. Mater.*, **2016**, *28*, 1245-1246.
65. Buriak, J. M. Table of Contents Images: Science and Beauty = Clarity. *Chem. Mater.*, **2016**, *28*, 1589-1590.
64. Toro, C.; Buriak, J. M. Photochemical Water Splitting Pioneer: Frank Osterloh and *Chemistry of Materials*' 1k Club. *Chem. Mater.*, **2016**, *28*, 1-2.
63. Buriak, J. M. Thank You For Your Continued Support in 2015. *Chem. Mater.*, **2015**, *27*, 8179-8180.
62. Buriak, J. M. *Chemistry of Materials* at Pacificchem 2015. *Chem. Mater.*, **2015**, *27*, 7843-7843.
61. Buriak, J. M. Up-and-Coming Series of Perspectives from Early Career Stars in Materials. *Chem. Mater.*, **2015**, *27*, 7547-7548.
60. Buriak, J. M. Papers with Longevity: Long-Term “Inhabitants” of Our Top Download Lists. *Chem. Mater.*, **2015**, *27*, 7205-7206.
59. Buriak, J. M. Materials Science - A New Era for Chemistry: Enormous Societal Challenges, Complex Global Problems. *Chem. Mater.*, **2015**, *27*, 6899-6900.
58. Buriak, J. M. ChinaNANO 2015: 6th Annual Conference on Nanoscience and Technology: Beijing, September 3-5, 2015. *Chem. Mater.*, **2015**, *27*, 6477-6477.
57. Buriak, J. M. Give Your ACS Author Rewards a Try: Make Your Paper Open Access. *Chem. Mater.*, **2015**, *27*, 6167-6168.
56. Hersam, M. C.; Lee, S-T.; Nel, A. R.; Buriak, J. M.; Weiss, P. S. Big Roles for Nanocenters. *ACS Nano*, **2015**, *9*, 8639-8640.

55. Buriak, J. M. The 2015 Division of Inorganic Chemistry Award, Sponsored by *Chemistry of Materials*. *Chem. Mater.*, **2015**, 27, 2839-5839.
54. Buriak, J. M. How We Choose Cover Images. *Chem. Mater.*, **2015**, 27, 5451-5452.
53. Buriak, J. M.; Toro, C. Rising to the Challenge: John B. Goodenough and Youngsik Kim, and “Challenges for Rechargeable Li Batteries” *Chemistry of Materials’ 1k Club*. *Chem. Mater.*, **2015**, 27, 5149-5150.
52. Murphy, C. J.; Buriak J. M. Best Practices for the Reporting of Colloidal Inorganic Nanomaterials. *Chem. Mater.*, **2015**, 27, 4911-4913.
51. Buriak, J. M. Pre-Publication Peer Review—Evidence and Editors. *Chem. Mater.* **2015**, 27, 3783–3784.
50. Buriak, J. M. New Reference Format for *Chemistry of Materials*. *Chem. Mater.* **2015**, 27, 3177–3177.
49. Buriak, J. M. News at *Chemistry of Materials*: Up-and-Coming Series, A New Editor. *Chem. Mater.* **2015**, 27, 2719–2720.
48. Buriak, J. M. Mega-Journals and Peer Review: Can Quality and Standards Survive? *Chem. Mater.* **2015**, 27, 2243–2243.
47. Toro, C.; Buriak, J. M. From Adsorption to Ordered Mesoporous Materials: Jaroniec and Kruk. *Chem. Mater.* **2015**, 27, 1903–1904.
46. Toro, C.; Buriak, J. M. F– Doping on TiO₂ Provided Important Insights into Photocatalysis. *Chem. Mater.* **2015**, 27, 1443–1444.
45. Buriak, J. M. Hot Topics in Materials Chemistry and the Immediacy Index Long-Term versus Short-Term Impact. *Chem. Mater.* **2015**, 27, 1147–1148.
44. Buriak, J. M.; Toro, C. *Chemistry of Materials*, Editors’ Choice, and Twitter. *Chem. Mater.* **2015**, 27, 649–649.
43. Toro, C.; Buriak, J. M. *Chemistry of Materials’ 1k Club*: Understanding the Complexity of Nanocomposites. *Chem. Mater.* **2015**, 27, 401–403.
42. Buriak, J. M.; Toro, C. Layer-by-Layer Growth of Graphene Oxide-Based Films for Electronics Applications in 1999: Early Leaders. *Chem. Mater.* **2015**, 27, 1–2.
41. Buriak, J. M. Looking Back: Recap of 2014 at *Chemistry of Materials*. *Chem. Mater.* **2014**, 26, 6905–6906.
40. Buriak, J. M.; Toro, C. *Chemistry of Materials’ 1k Club*: Klaus-Dieter Kreuer. Establishing the Connection Between Materials and Proton Conductivity. *Chem. Mater.* **2014**, 26, 6651–6652.
39. Buriak, J. M. Scientific Publishing as an Art. *Chem. Mater.* **2014**, 26, 6319–6319.
38. Buriak, J. M. The Nobel Prize, Social Media, and Materials. *Chem. Mater.* **2014**, 26, 6087–6087.
37. Toro, C.; Buriak, J. M. Father of Mesoporous Materials: Galen D. Stucky. *Chem. Mater.* **2014**, 26, 5819–5820.
36. Kamat, P. V.; Buriak, J. M.; Schatz, G. C.; Weiss, P. S. Mastering the Art of Scientific Publication. *J. Phys. Chem. Lett.* **2014**, 5, 3519–3521.
35. Buriak, J. M. Growth at *Chemistry of Materials*. *Chem. Mater.* **2014**, 26, 5421–5421.
34. Toro, C.; Buriak, J. M. Organic Photovoltaics: An Early Innovator. *Chem. Mater.* **2014**, 26, 5181–5182.
33. Toro, C.; Buriak, J. M. Template Synthesis Approach to Nanomaterials: Charles Martin. *Chem. Mater.* **2014**, 26, 4889–4890.
32. Buriak, J. M. Correction to Just Accepted, Most Read, and New Faces. *Chem. Mater.* **2014**, 26, 5179–5179.
31. Toro, C.; Buriak, J. M. Nanomaterials Pioneers: Nikoobakht and El-Sayed. *Chem. Mater.* **2014**, 26, 4669–4670.
30. Buriak, J. M.; Kamat, P. V.; Schanze, K. S. Best Practices for Reporting on Heterogeneous Photocatalysis. *ACS Appl. Mater. Interfaces* **2014**, 6, 11815–11816.
29. Buriak, J. M. The Latest from Our Up-and-Coming Series. *Chem. Mater.* **2014**, 26, 4321–4321.
28. Buriak, J. M. Appealing Chemistry: How Our Appeals Process Works. *Chem. Mater.* **2014**, 26,

- 4045–4045.
27. Buriak, J. M. The Impact of the Impact Factor. *Chem. Mater.* **2014**, *26*, 3871–3872.
 26. Prasad, B. L. V.; Buriak, J. M. *Chemistry of Materials* Celebrates the 80th Birthday of One of the Premier “Chemists of Materials.” *Chem. Mater.* **2014**, *26*, 3593–3594.
 25. Buriak, J. M. The Art of Writing the Title of Your Paper. *Chem. Mater.* **2014**, *26*, 3349–3350.
 24. Buriak, J. M. Our New “Up-and-Coming Series” of Perspectives. *Chem. Mater.* **2014**, *26*, 3027–3027.
 23. Buriak, J. M. Highlights of 2014, Thus Far. *Chem. Mater.* **2014**, *26*, 2765–2765.
 22. Buriak, J. M. Should I Reveal the History of My Manuscript? *Chem. Mater.* **2014**, *26*, 2487–2487.
 21. Buriak, J. M. Your Research Results Look Compelling, but Are They Reliable? *Chem. Mater.* **2014**, *26*, 2211–2213.
 20. Buriak, J. M. Just Accepted, Most Read, and New Faces. *Chem. Mater.* **2014**, *26*, 1983–1984.
 19. Buriak, J. M.; Korgel, B. The Experimental Section: The Key to Longevity of Your Research. *Chem. Mater.* **2014**, *26*, 1765–1766.
 18. Buriak, J. M. Chemistry and Materials in the Spotlight at the Dallas Spring Meeting. *Chem. Mater.* **2014**, *26*, 1501–1501.
 17. Buriak, J. M. Titles and Table of Contents Images: The Candy Store Analogy. *Chem. Mater.* **2014**, *26*, 1289–1290.
 16. Buriak, J. New People, New Directions in 2014. *Chem. Mater.* **2014**, *26*, 871–871.
 15. Buriak, J. M. Illuminating Silicon Surface Hydrosilylation: An Unexpected Plurality of Mechanisms. *Chem. Mater.* **2014**, *26*, 763–772.
 14. Buriak, J. M. 25 Years of Proud History: Building for the Next 25. *Chem. Mater.* **2014**, *26*, 1–2.
 13. Bonnell, D. A.; Buriak, J. M.; Chan, W. C. W.; Hafner, J. H.; Hammond, P. T.; Hersam, M. C.; Javey, A.; Kotov, N. A.; Nel, A. E.; Nordlander, P. J.; *et al.* Correction to “We Take It Personally”. *ACS Nano* **2013**, *7*, 1823–1823.
 12. Buriak, J. M. Open the Floodgates for Online Feedback on Scientific Papers? Not So Fast. *ACS Nano* **2013**, *7*, 1–2.
 11. Bonnell, D. A.; Buriak, J. M.; Chan, W. C. W.; Hafner, J. H.; Hammond, P. T.; Hersam, M. C.; Javey, A.; Kotov, N. A.; Nel, A. E.; Nordlander, P. J.; *et al.* We Take It Personally. *ACS Nano* **2012**, *6*, 10417–10419.
 10. Buriak, J. M.; Schaak, R. E.; Weiss, P. S. In Response. *ACS Nano* **2012**, *6*, 3643–3645.
 9. Buriak, J. M.; Maier, S. A.; Parak, W. J.; Wee, A. T. S.; Weiss, P. S. Announcing the Recipients of the 2012 ACS Nano Lectureship Awards. *ACS Nano* **2012**, *6*, 987–989.
 8. Bonnell, D. A.; Buriak, J. M.; Hafner, J. H.; Hammond, P. T.; Hersam, M. C.; Javey, A.; Kotov, N. A.; Nordlander, P.; Parak, W. J.; Rogach, A. L.; *et al.* Recycling Is Not Always Good: The Dangers of Self-Plagiarism. *ACS Nano* **2012**, *6*, 1–4.
 7. Tierney, H. L.; Bonnell, D. A.; Buriak, J. M.; Hafner, J. H.; Hammond, P. T.; Hersam, M. C.; Javey, A.; Kotov, N. A.; Nordlander, P.; Parak, W. J.; *et al.* ACS Nano in 2011 and Looking Forward to 2012. *ACS Nano* **2011**, *5*, 9301–9302.
 6. Buriak, J. Summarize Your Work in 100 Milliseconds or Less... The Importance of the Table of Contents Image. *ACS Nano* **2011**, *5*, 7687–7689.
 5. Parak, W. J.; Weiss, P. S.; Bonnell, D. A.; Buriak, J. M.; Hafner, J. H.; Hammond, P. T.; Hersam, M. C.; Kotov, N. A.; Schaak, R. E.; Willson, C. G. Virtual Issue on Nanotoxicology. *ACS Nano* **2010**, *4*, 5513–5514.
 4. Buriak, J. M. Rejecting without Review: The Whys, the Hows. *ACS Nano* **2010**, *4*, 4963–4964.
 3. Buriak, J. M. In Memoriam, Victor S.-Y. Lin. *ACS Nano* **2010**, *4*, 2973–2974.
 2. Weiss, P. S.; Bonnell, D. A.; Buriak, J. M.; Lewis, P. A.; Hammond, P. T.; Kotov, N. A.; Willson, C. G. Gaining Strength, Increasing Our Impact. *ACS Nano* **2009**, *3*, 3815–3816.
 1. Buriak, J. M. A Quiet Revolution. *ACS Nano* **2009**, *3*, 3335–3336.

Invited Oral Presentations at Meetings

82. 2018 Southeastern Regional Meeting of the American Chemical Society, Augusta, Georgia, October 31-November 3, 2018 (*scheduled – plenary lecture*)
81. KAIST International MSE Workshop "Big Ideas in Emerging Materials", Daejeon, Korea, August 7-8 2018 (*scheduled*)
80. 2018 E-MRS Meeting, Strasbourg, France, June 18-2018 (*scheduled*)
79. 2018 Atlantic Basin Conference on Chemistry, Cancun, Mexico, January 23-26 2018 (*scheduled*)
78. 21st Annual Green Chemistry & Engineering Conference (keynote), Reston, VA, June 13, 2017.
77. 100th Canadian Chemistry Conference and Exhibition (organizer), Toronto, ON, May 28, 2017.
76. Western Canadian Undergraduate Chemistry Conference (WCUCC) 2017, Edmonton, Alberta, May 4, 2017.
75. SABIC 2017 Lecture Series, SABIC, Sugar Land, TX, April 17-18, 2017.
74. ACS 253rd National Meeting, San Francisco, CA, April 2017.
73. Chemistry as Innovating Science (CHAINS), Veldhoven, Netherlands, December 6, 2016.
72. KAUST Research Conference 2016: Emerging Concepts and Materials in Solar Energy Conversion, Thuwal, Saudi Arabia, October 31, 2016.
71. ACS Publications Symposium: Innovation in Molecular Science (organizer), Beijing, China, October 25, 2016.
70. International Workshop on Emerging Functional Materials, Daejeon, Korea, August 2, 2016.
69. SciTech Library event, Edmonton, AB, May 2016
68. NanoLytics, Vancouver, BC, May 4-5, 2016
67. ACS Spring Meeting, San Diego, CA, March 2016
66. MRS meeting, Phoenix, AZ, March 2016 (2 invited talks)
65. ChinaNANO, Beijing, September 2015 (plenary invited talk)
64. 46th Silicon Symposium, Davis, CA, June 2015 (plenary lecturer)
63. ACS National Meeting, Denver, CO, March 2015 (1 invited talk)
62. Reaction Mechanisms Conference, Davis, CA, June 2014 (1 invited talk)
61. CSC National Meeting, Vancouver, BC, June 2014 (1 invited talk).
60. MRS Spring Meeting, San Francisco, CA, April 2014 (1 invited talk)
59. ACS Spring Meeting, Dallas, TX, March 2014 (2 invited talks)
58. Gordon Research Conference on Clusters, Nanocrystals, and Nanostructures, South Hadley, MA, August 2013
57. ACS National Meeting, New Orleans, LA, April 2013
56. CSC National Meeting, Calgary, AB, 948, May 2012.
55. CSC National Meeting, Calgary, AB, 926, May 2012.
54. ACS National Meeting, San Diego, CA, POLY 52, March 2012
53. ACS National Meeting, San Diego, CA, INOR 535, March 2012
52. ACS National Meeting, San Diego, CA, COLL 491, March 2012
51. Photovoltaics North, Niagara Falls, ON, June 2010
50. CSC Annual Meeting, Toronto, ON, MT2, abstract 935, May 2010
49. CSC Annual Meeting, Edmonton, AB, MS3, abstract 699, May 2008.
48. CSC Annual Meeting, Edmonton, AB, MT1, abstract 483, May 2008.
47. 57th Canadian Chemical Engineering Conference, Nano04, Abstract 533, Edmonton, AB, October 2007.
46. Inorganic Division Weekend (IDW), Ottawa, Ontario, October 2006.
45. ISSP 10 - Nanoscience at Surfaces, University of Tokyo, Japan, October 2006.
44. Inorganic Gordon Research Conference, Newport RI, July 2006.
43. ACS National Meeting, Nanotechnology and the Environment (IE&C), Atlanta, March 28, 2006.
42. ACS National Meeting, Polymers, Nanoparticles and Composite Materials in Nanoscience Symposium (PMSE), Atlanta, March 26, 2006.
41. AAAS Annual Meeting, St. Louis, MO, February 18, 2006.
40. 208th ECS Meeting, Los Angeles, October 16-21, 2005.

Curriculum vitae, August, 2017

39. IS&T's DigiFab Conference, Baltimore, MD. September 19-21, 2005.
38. 13th International Conference on Women in Engineering and Science (ICWES), Seoul, Korea, August 25-29, 2005.
37. 14th International Symposium on Organosilicon Chemistry, Würzburg, July 31-August 5, 2005 (plenary lecturer).
36. ACS National Meeting, Integration of Molecules and Metallic Nanostructures with Semiconductors Symposium, San Diego, March 15, 2005.
35. ACS National Meeting, Adamson Award Symposium Honoring Robert Hamers, San Diego, March 14, 2005.
34. Electrochemistry Gordon Conference, Ventura, CA, February 20-25, 2005.
33. CIAR Nanoelectronics Meeting, Vancouver, November 7, 2004.
32. Royal Society of Chemistry Discussion Meeting on Engineered Foams and Porous Materials, London, England, November 2, 2004.
31. ACS Meeting, Philadelphia, PA, August 24, 2004.
30. Electrodeposition Gordon Conference, New London, NH, August 17, 2004.
29. Canadian Society for Chemistry Meeting, London, ON, May 29, 2004.
28. Organic Symposium of the Royal Netherlands Chemistry Society, Wageningen, Netherlands, April 15, 2004.
27. ACS National Meeting, Anaheim, CA, March 30, 2004.
26. ACS National Meeting (Presidential Symposium), Anaheim, CA, March 28, 2004.
25. Dip-Pen Workshop sponsored by the US Air Force AFOSR, Duck's Cay, Florida, January 26-27, 2004.
24. NSERC Nano Innovation Platform Workshop, Edmonton, AB, November 25, 2003.
23. Canadian Section of the Electrochemical Society, Edmonton, AB, November 8, 2003.
22. Gold 2003 (Annual International meeting on gold chemistry and applications), Vancouver, BC, September 2003.
21. ACS National Meeting, NY, September 2003.
20. Workshop on Nanoscale Devices and Processes, held at the 11th Canadian Semiconductor Technology Conference, Ottawa, Ontario, August 18, 2003.
19. New Orleans ACS Meeting, March 2003. (ACS Pure Chemistry Award Presentation)
18. Gordon Conference on Inorganic Reaction Mechanisms, Ventura, CA, February 16-21, 2003.
17. Gordon Conference on Chemical Reactions at Surfaces, Ventura, CA, February 16-21, 2003.
16. American Vacuum Society Meeting, Denver, CO, Abstract 60, scheduled for November 3-8, 2002.
15. Telluride Summer School on Semiconductor Surface Chemistry, Telluride, CO, July 29-August 2, 2003.
14. Great Lakes Regional ACS Meeting, Minneapolis, MN, Abstract 302, June 2-4, 2002.
13. Electronic Materials Gordon Conference, July 15-19, 2001.
12. 34th Organosilicon Symposium, White Plains NY, May 3-5, 2001.
11. ACS Meeting, San Diego, CA April 2001.
10. Industrial Associates Meeting, Purdue University, September 29, 2000.
9. ACS National Meeting, August 20-24, Washington DC.
8. Organometallic Gordon Conference, July 30-August 4, 2000, Newport, RI.
7. Inorganic Gordon Conference, July 23-28, 2000, Newport, RI.
6. ACS National Meeting, San Francisco, March 2000.
5. ACS National Meeting, San Francisco, March 2000.
4. NSF Inorganic Workshop, Maryland, June 3-6, 1999.
3. LabAutomation '99 Meeting, San Diego, CA, February 3, 1999.
2. European Materials Research Society Meeting (E-MRS), Strasbourg France, June 17, 1998.
1. Nanotechnology Workshop, Purdue University, April 3, 1998.

Invited Seminars

Curriculum vitae, August, 2017

104. Texas A&M University, Department of Chemistry, November 9, 2017 (*scheduled*)
103. University of Michigan, Department of Chemistry, Covestro Lecturer in Sustainability, Minneapolis, MN, October 17, 2017. (*scheduled*)
102. Colorado School of Mines, Golden, CO, September 29, 2017. (*scheduled*)
101. Department of Chemistry, Washington University in St. Louis, St. Louis, MO, February 2, 2017.
100. Department of Chemistry and Biochemistry, University of Oregon, Eugene, OR, September 20, 2016.
99. Department of Chemistry, University of North Carolina at Chapel Hill, Chapel Hill, NC, April 25, 2016.
98. Department of Chemistry, University of Toronto, Toronto, ON, February 26, 2016.
97. Department of Chemical Engineering, University of Rochester, Rochester, NY, February 24, 2016.
96. Department of Chemistry, California Institute of Technology (Caltech), Pasadena, CA, February 4, 2016.
95. Department of Chemistry, Pennsylvania State University, State College, PA, November 2015.
94. Department of Chemistry, Chinese Academy of Sciences, Molecular Science Frontier Forum Lecturer, September 2015
93. Department of Chemistry, Notre Dame University, Notre Dame, IN, April 2015
92. Department of Chemistry, Indiana University, Bloomington, IN, April 2015
91. Department of Chemistry, University of Hong Kong, February 2015
90. Department of Chemistry, City University of Hong Kong, February 2015 (2 invited talks)
89. Department of Chemistry, Western University, London, ON, November 2014 (2 invited talks)
88. Department of Chemistry, KAUST, Saudi Arabia, October 27-29, 2014 (2 invited talks).
87. Department of Chemistry, University of Southern California, Los Angeles, CA, October 2, 2014
86. Department of Chemical Engineering, Cornell University, Ithaca, NY, November 7, 2013.
85. School of Materials Science and Engineering, Georgia Tech, Atlanta, GA, April 26, 2013.
84. Campus-wide talk on publishing in top-calibre journals, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia, November 20, 2012.
83. Materials Science and Engineering, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia, November 20, 2012.
82. Nova Chemicals, Calgary, AB, October 4, 2012.
81. Department of Chemical Engineering, Yale University, New Haven, CT, September 26, 2012
80. Department of Chemistry, University of Victoria, Victoria, BC, April 19, 2012
79. Department of Chemistry, University of Colorado, Boulder, CO, March 19, 2012
78. John P. Oliver Lecture Series, Nano@Wayne State Seminar, Wayne State University, Detroit, MI, January 10, 2012
77. School for the Energy and the Environment (SEE), School of Business, University of Alberta, Edmonton, AB, September 2011
76. Department of Chemistry, University of Calgary, Calgary, AB, May 2011
75. Alberta Centre for Advanced MNT Products (ACAMP), Edmonton, AB, November 2010
74. Department of Chemistry, University of Toronto, Toronto, ON, March 2010
73. Department of Chemistry, University of British Columbia, Vancouver, BC, January 21, 2010
72. Department of Chemistry, University of Washington, Seattle, WA, March 3, 2009.
71. Department of Chemistry, Queen's University, Kingston, ON, February 5, 2009.
70. Department of Chemistry, Université de Montréal, Montréal, QC, February 4, 2009
69. Department of Chemistry, McGill University, Montréal, QC, February 3, 2009.
68. Department of Chemistry, Columbia University, New York, NY, December 9, 2009.
67. The Pedersen Lecture (named lectureship), DuPont Central Research, Experimental Station, Wilmington, DE, October 15, 2008.
66. Philips (Global), Eindhoven, Netherlands, February 18, 2008.
65. Department of Chemistry, University of Calgary, Calgary, AB, November 30, 2007.
64. Department of Chemistry, University of Saskatchewan, Saskatoon, SK, March 6, 2007.

63. R. B. Woodward Lecture in Inorganic Chemistry, Departments of Chemistry, Harvard University and MIT, Cambridge, MA, December 6, 2006.
62. Cecil and Ida Green Honors Lectures (2 lectures), Texas Christian University (TCU), Fort Worth TX, November 13 and 14, 2006.
61. Department of Chemistry, University of California, Berkeley, CA, September 8, 2006.
60. Department of Chemistry, University of Pennsylvania, Philadelphia, PA, April 24, 2006.
59. Department of Chemical Engineering, University of Alberta, Edmonton, AB, March 14, 2006.
58. Department of Chemistry, York University, Toronto, ON, February 24, 2006.
57. Department of Chemistry, Laval University, Québec, QC, February 23, 2006
56. Faculty of Engineering Science, University of Toronto, Toronto, ON, February 10, 2006
55. Steacie Institute of Molecular Sciences (SIMS), National Research Council (NRC), Ottawa, ON, November 28, 2005.
54. Department of Chemistry, EPFL (Swiss Federal Institute of Technology), Lausanne, Switzerland, November 10 and November 11, 2005 (2 invited talks).
53. Department of Chemistry, ETH, Zürich, Switzerland, November 9, 2005.
52. Department of Physics, University of Alberta, Edmonton, AB, October 28, 2005.
51. Department of Chemistry, Ewha Women's University, Seoul, Korea, August 30, 2005.
50. Department of Chemistry, POSTECH, Pohang, Korea, August 29, 2005
49. Department of Chemistry, State University of New York at Buffalo, Buffalo, NY, March 24, 2005.
48. Department of Chemistry, Waseda University (Tokyo, Japan), March 3, 2005.
47. Department of Chemistry, University of Tsukuba, Japan, March 2, 2005.
46. Embassy of Canada, Tokyo, Japan, March 1, 2005.
45. Department of Chemistry, Ochanomizu University (Tokyo, Japan), March 1, 2005.
44. Department of Chemistry, University of Delaware, Newark, DE, February 18, 2005.
43. Department of Chemical Engineering, University of Texas, Austin, TX, November 16, 2004.
42. Department of Chemistry, Barnard College of Columbia University, New York, NY, October 5, 2004.
41. NSEC Program, Columbia University, New York, NY, October 4, 2004.
40. Department of Chemistry, Simon Fraser University, Vancouver, BC, September 15, 2004.
39. Department of Chemistry, University of Colorado, Boulder, CO (2 seminars, August 2 and 4, 2004).
38. Program of Nanotechnology, University of Washington, Seattle, WA, June 1, 2004.
37. Faculty of Engineering, University of Toronto, Toronto, ON (2 seminars, March 4 and 5, 2004)
36. Department of Chemistry, Texas A&M, College Station, TX, March 3, 2004.
35. Department of Chemistry, University of Victoria, Victoria, BC, February 25, 2004.
34. Department of Chemistry, University of British Columbia, Vancouver, BC, February 24, 2004.
33. Department of Chemistry, Pennsylvania State University, State College, PA, February 19, 2004.
32. Department of Chemistry, Caltech, Pasadena, CA, November 3, 2003.
31. Hewlett-Packard, Corvallis, OR, August 25-16, 2003.
30. Department of Chemistry, University of Illinois at Urbana Champaign, Champaign, IL, March 18, 2003.
29. Department of Chemistry, University of Colorado, Boulder, CO, November 6, 2002.
28. Department of Chemistry, University of Alberta and the National Institute for Nanotechnology, Edmonton, AB, August 14, 2002.
27. Department of Chemistry, Princeton University, Princeton, NJ, December 10, 2001.
26. Department of Chemistry, Indiana University, Bloomington, IN, December 6, 2001.
25. Department of Chemistry, Brown University, Providence, RI, November 16, 2001.
24. Fresenius Award Lecture, Purdue University, West Lafayette, IN, November 1, 2001.
23. Department of Chemistry, University of Wisconsin, Madison, WI, September 17, 2001.
22. Department of Chemistry, The Ohio State University, Columbus, OH, May 23, 2001.
21. Department of Chemistry, Stanford University, Palo Alto, CA, April 19, 2001.

Curriculum vitae, August, 2017

20. Department of Chemistry, University of Houston, Houston, TX, February 20, 2001.
19. Department of Chemistry, Rice University, Houston TX, February 19, 2001.
18. Department of Chemistry, Institute of Technology, Pasadena, CA, February 12, 2001.
17. Department of Chemistry, Northwestern University, Evanston, IL, February 2, 2001.
16. 3M, Minneapolis, MN, January 17, 2001.
15. Wabash College, Crawfordsville, IN, October 26, 2000.
14. Department of Chemistry, University of California, Berkeley, CA, October 20, 2000.
13. Department of Chemistry, University of California, San Diego, CA, February 11, 2000.
12. Department of Chemistry, Purdue University, West Lafayette, IN, November 2, 1999.
11. University of Maryland, College Park, MD, September 10, 1999.
10. Department of Chemistry, Vincennes University, Vincennes, IN, March 24, 1999.
9. Department of Chemistry, IUPUI, Indianapolis, IN, February 10, 1999.
8. Department of Chemistry, Ball State University, Muncie, IN, January 28, 1999.
7. Kalamazoo College, Kalamazoo, MI, October 15, 1998.
6. American Chemical Society Student Affiliates, Purdue University, West Lafayette, IN, October 7, 1998.
5. Institut le Bel, Université Louis Pasteur, Strasbourg, France, June 15, 1998.
4. Department of Materials Science and Electrical Engineering (MSEE), Purdue University, West Lafayette, IN, April 20, 1998.
3. Department of Chemistry, University of California (UCSD), San Diego, CA, March 7, 1997.
2. Seminar Jeunes Chercheurs, Université Louis Pasteur, France, October 1994.
1. ICI Europa, Kortenberg Belgium, August 17, 1990.

SUPERVISION OF GRADUATE STUDENTS/OTHERS

Present:

- 9 graduate students at present (all Ph.D.)
- 1 post-doc
- 4 research associates/engineers
- 1 technician
- 1 dedicated administrative assistant (non-ACS)

Past:

- 31 graduate students (27 Ph.D., 4 M.Sc.),
- 19 post-docs
- 3 research associates
- 3 technicians
- 3 sabbatical professors
- 35 undergraduate students

RECENT COMMITTEE WORK

- 2017 Member, Search committee for the editor-in-chief (EIC) of an established ACS journal (successful)
- 2017 Member, Search committee for the editor-in-chief (EIC) of an established ACS letters-style journal (successful)
- 2016 Royal Society of Canada, Selection of College Fellows
- 2016 Member, Organizing committee for ACS Publications Symposium: Innovation in Molecular Science
- 2015- Chair, Search committee for the editor-in-chief (EIC) of a new ACS journal (successful)

Curriculum vitae, August, 2017

- 2015- Member, ACS Publications committee on inter-journal manuscript transfer (within ACS journals), with 4 other ACS editors-in-chief
- 2015- Killam Annual Professorship Selection Committee
- 2014- Co-chair, with Kirk Schanze, of ACS Task Force on best practices for reporting of new materials and devices
- 2014- Member, ACS Publications committee on peer review
- 2013- Chair of a major American Chemical Society (ACS) award selection committee
- 2011- Division Chair, Inorganic and Materials Chemistry
- 2011- Member, Department of Chemistry Awards Committee
- 2011- Inorganic and Materials Chemistry lead for the 502 departmental student lecture series
- Member, General Appeals Committee for the Provost, University of Alberta

PROFESSIONAL SOCIETIES

Fellow of the Royal Society of Chemistry, UK (FRSC)

Fellow of the Royal Society of Canada (FRSC)

Fellow of the American Association for the Advancement of Science (AAAS)

Canadian Institute for Chemistry (CIC)

The American Chemical Society (ACS)

Materials Research Society (MRS)

Outside activities:

- Road racing (running); PBs from 2014: 10 km (42 min), 10 mile (1:09), half marathon (1:33), marathon (3:36)
- Mountain climbing/scrambling
- Backcountry kayaking/sea kayaking

RESEARCH SUPPORT (Awarded)

Agency	Grant Title	PI / Co-PI	Project Period	Total Award (direct funds unless noted)
Canada Foundation for Innovation	Advanced Integrated Manufacturing for Micro/Nano Systems (AIMMS)	PI: JMB; 9 co-PIs	01/2018- 01/2023	\$16 million: \$6.5 million, + \$6.5 million match from Alberta Government, + \$3 million from companies
CFREF	Future Energy Systems Research Institute (FESRI)	PI: VP Research of UofA; 9 co-PIs , including Buriak	04/2017 – 09/2023	\$75 million total, of which \$1.4 million to Buriak
China Opportunity Fund	Nanopatterning via Directed Assembly – Next Generation Nanolithography for Integrated Circuitry	PI: JMB/Qiu (collaboration with Fudan U)	05/2016 – 04/2017	\$32k
NSERC – Strategic	Stable Catalytic Materials for Emerging Energy Conversion Technologies and Greenhouse Gas Mitigation	PI: Hayes; 4 co-PIs , including Buriak	09/2015 – 09/2018	\$564k, of which \$90k to Buriak
Canada Research Chair	Canada Research Chair of Nanomaterials for Energy	PI: Buriak	09/2015- 08/2022	\$1.4 million
NSERC – ATUMS / CREATE grant	Creation of graduate program with German partners (Alberta Technical University of Munich)	PI: Veinot; 7 co-PIs , including Buriak	04/2015 – 03/2021	\$1.65 million, of which \$200k to Buriak
CIFAR - Senior Fellowship		PI: JMB	01/2015 – 06/2016	\$45k
Quantiam Technologies Inc.	Green Methanol from Carbon Dioxide and Renewable Hydrogen	PI: JMB	07/2014 – 03/2017	\$426k
Alberta Innovates Technology Futures (AITF) - iCORE	Sun-Powered Generation of Fuels and Power to Support and Compliment Alberta's Energy Portfolio	PI: JMB	04/2014 – 03/2019	\$1.25 million
Canadian Foundation for Innovation (Leading Edge)	EMC ² , or Energy Materials Characterization and Control (funding for high end microscopy: TEM, helium ion, SEM)	PI: Ken Cadien; 10 co-PIs , including Buriak	2014 - 2019	\$4 million + \$4 million match from Alberta Government
NSERC - Discovery	Self-Assembly of Block Copolymers on Surfaces	PI: JMB	2014 - 2019	\$500k
Alberta Innovates Energy and Environment Solutions	Spray-on Nanoparticle-based Solar Cells	PI: JMB	06/2013 – 08/2014	\$84k

NSERC	Urgent Need for a High Speed, Highly Sensitive Near-Infrared Photodetection System	PI: Karthik Shankar; 7 co-PIs including Buriak	04/2013 – 03/2014	\$66k
Saudi Basic Industries Corporation (SABIC)	Towards the Manufacture of Long-Lived Organic Photovoltaics	PI: JMB	06/2012 – 06/2015	\$756k
NSERC - Engage Grant	Nanoscale graphitic coatings for photovoltaic and battery applications (with 3M)	PI: JMB	02/2012 – 09/2012	\$25k
School for Energy and the Environment (SEE)	Solar Device Assembly and Characterization Facility	PI: JMB	2011 - 2012	\$20k
NRC/NINT A-base funding	Nanoscale Control of Technologically Important Semiconductor Surfaces	PI: JMB	2010 - 2012	\$400k
NSERC	Intensified Gated Camera for Fluorescence Lifetime Imaging	PI: Xihua Wang; co-PI: Buriak	2010 – 2011	\$71k
NSERC	Scanning Electron Microscope with Energy-Dispersive X-Ray Spectroscopy Capabilities for Studying the Structure and Elemental Composition of Inorganic and Polymeric Nanomaterials	PI: Michael Serpe; co-PIs are Buriak + 4 others	2010 - 2011	\$150k
NSERC - Strategic	Development of Low Cost, High Energy Output Photovoltaic Systems Through Applied Nanoscience	PI: JMB	2009 - 2012	\$520k
NSERC - Networks	NSERC Photovoltaics Innovation Network	Network of >30 members	2009 - 2015	\$5 million total; \$85k bot Buriak
NSERC - Discovery	Practical Approaches Towards Building Nanoscale Architectures	PI: JMB	2009 - 2014	\$595k
CIHR - Centre Grants	Nanomedicine in organ transplantation: Polysaccharide structures as immunologic tolerogens for infant heart transplantation	PI: L. J. West + 4 co-PIs including Buriak	2009 - 2014	\$2,021k
NSERC - MRS Grant	Nanofabrication Facility Support (to support the University of Alberta Centre for Nanofabrication - no operating)	PI: M. Brett + 9 co-PIs , including Buriak	2008 - 2013	\$1,091k
NRC/NINT Collaborative Grant	Development of Inexpensive Photovoltaic Devices, Based Upon Processable Nanoscale Architectures	1/3, 1/3, 1/3 split with Buriak, M. Brett, A. Kovalenko	2008 - 2009	\$140k

Canada Research Chair (Tier 1)	Synthesizing and Applying Nanomaterials for Applications in Energy and Medicine	PI: JMB	2008 - 2015	\$1400k (none directly to JMB)
Institute for Oil Sands Innovation	An Effective Combinatorial Approach Towards the Discovery of Nano-particle Catalyst Arrays for Hydrogenation and Ring Opening	PI: JMB	2008 - 2010	\$240k
NSERC - Discovery	Highly Functionalized Semiconductor Interfaces	PI: JMB	2007 - 2009	\$144k
NSERC - E. W. R. Steacie Fellowship	Developing a Viable Interface Between Silicon and Neurons	PI: JMB	2007 - 2009	\$416k
NSERC	Bismuth Cluster Ion Source for Static SIMS	ACES equipment application; 7 co-PIs , including Buriak	2007 – 2008	\$146k
NRC/NINT A-base funding	Nanoscale Control of Technologically Important Semiconductor Surfaces	PI: JMB	2006 - 2009	\$750k
NSERC	Nanosystems In Transplantation: Blood Group Antigens as Immunologic Tolerogens for Infant Heart Transplantation	PI: West + 2 co-PIs , including Buriak	2006 – 2009	\$197k
NSERC	Purchase of a Glove Box to Enable Surface Nanopatterning by Self-Assembly	PI: JMB	2006 - 2007	\$24k
NSERC Nano IP	Interactions Between Nanoscale Materials and Blood	PI: JMB	2005 - 2007	\$100k
Canada Foundation for Innovation (CFI)	Nanoscale Functionalization of Semiconductor Surfaces (for purchase of AFM, solvent purification system, e-chem systems)	PI: JMB	2004 - 2009	\$800k
NSERC	Nanoscale Functionalization of Semiconductor Surfaces	PI: JMB	2004 - 2007	\$195k
NSERC	A Monomode Microwave Reactor for Reaction Optimization and Library Synthesis	PI: Dennis Hall; Buriak a co-PI	2004 - 2005	\$93k
Canada Research Chair	Nanoscale Chemistry on Semiconductor Interfaces	PI: JMB	2003 - 2008	\$500k
University of Alberta/National Research Council Start-up		PI: JMB	2003 - 2008	\$975k

Curriculum vitae, August, 2017

Camille and Henry Dreyfus Teacher-Scholar Award	Semiconductor Surface Chemistry	PI: JMB	2002 - 2004	\$60k
Showalter Foundation	Ultra-High Density, Spatially-Addressable DNA Microarrays on Porous Silicon	PI: H. Fenniri; co-PI: JMB	2001 - 2002	\$95k
NSF (Surface and Analytical Division)	Wet-Chemical Routes to Stable Organic Monolayer-Based Nanoscale Features on Semiconducting Silicon and Germanium Surfaces	PI: JMB	2001 - 2004	\$275k USD (including indirect)
A. P. Sloan Foundation Fellow	Functionalization of Technologically Relevant Semiconductor Surfaces	PI: JMB	2000 - 2002	\$40k
Cottrell Teacher-Scholar	Nanolithographic Formation of Stable, Highly Functional Monolayers on Semiconducting Silicon and Germanium Surfaces	PI: JMB	2000 - 2002	\$75k
3M New Faculty Award	Unrestricted funds	PI: JMB	2000	\$10k
NSF Career Award	Electronic Modulation of Catalysts Bound to Porous Silicon Surfaces	PI: JMB	1999 - 2003	\$372k USD (including indirect)
Purdue University, Reinvestment Proposal	A Laboratory for Chemical Nanotechnology (for the purchase of an AFM and associated instrumentation)	PI: H. Fenniri Co-PI: JMB, M. McElfresh	1999 - 2002	\$440k (direct internal funds)
DuPont New Faculty Award	Research on Catalysis	PI: JMB	1998	\$25k
Petroleum Research Fund (PRF, Type G)	Functionalization of Photoluminescent Porous Silicon with Transition Metal Catalysts	PI: JMB	1998 - 2000	\$20k
Camille and Henry Dreyfus New Faculty Award	Functionalization of Photoluminescent Porous Silicon with Transition Metal Catalysts	PI: JMB	1997 - 2002	\$25k
Purdue University	Start-up package	PI: JMB	1997 - 2002	\$350k

COMPLETE LIST OF PERSONNEL (most recent first, and divided up by status in the group)

Ph. D. Students

Name	Status	Years Supervised	Present Position
Dan Yang	In Progress	2017 -	Collaboration with JMB group, 2nd year graduate student
Simon Pfaehler	Completed	2016	JMB group, visiting student ATUMS program
Gayashani Ginige	In Progress	2016 -	JMB group, 1st year graduate student
Hao Wang	In Progress	2016 -	JMB group, 1st year graduate student
Mahmoud Almadhoun	In Progress	2016 -	JMB group, 1st year graduate student
Chengcheng Rao	In Progress	2015 -	JMB group, 1st year graduate student
Minjia Hu	In Progress	2014 -	JMB group, 2nd year graduate student, AITF scholarship
Hezhen Xie	In Progress	2014 -	JMB group, 2nd year graduate student, AITF scholarship
Yeong-Chan Ahn	Transferred	2014 - 2015	Transferred to Vederas Group
Christopher Fetterly	In Progress	2013 -	JMB group, 3rd year graduate student, NSERC CGS-D, AITF scholarship
Cong Jin	In Progress	2012 -	JMB group, 4th year graduate student, AITF scholarship
Shuhai Chen	Abandoned	2011 - 2014	Left for personal reasons
Bing Cao	Completed	2011 - 2016	JMB group, postdoctoral fellow
Fenglin Liu	Completed	2011 - 2016	Postdoctoral Fellow, University of Alberta,
Jeremy Bau	Completed	2010 - 2015	
Jeffrey Murphy	Completed	2010 - 2015	Postdoctoral Fellow, Eindhoven, Netherlands
Torsten Doerschel	Completed	2010 - 2011	Operation and Maintenance PV, Solarparc, Germany
Brian Worfolk	Completed	2009 - 2013	Research Scientist, Philips 66, Oklahoma
Nathaneal Wu	Completed	2008 - 2013	Medical school, University of Calgary (started July, 2015)
Nicole (Dehm) Beckers	Completed	2007 - 2011	Research Scientist, Gilead Sciences
Anne (Slaney) Cooper	Completed	2006 - 2012	Permanent Instructor, Northern Alberta Institute of Technology
Xiaojiang Zhang	Completed	2006 - 2011	Film Engineer, Alberta Film Inc.
Sean McClure	Completed	2005 - 2011	Patent Agent, Canmore, AB
Sayed Sayed	Completed	2005 - 2010	Postdoctoral Fellow (NSERC), MIT
Hidenori Mizuno	Completed	2005 - 2010	National Institute of Advanced Industrial Science & Technology (AIST), Japan
Steven Chai	Completed	2005 - 2009	Postdoctoral Fellow (NSERC), Northwestern University
Leslie Vazquez-Serrano	Completed	2000 - 2005	Senior Scientist, Owens-Corning, USA
Michael P. Stewart	Completed	1997 - 2001	Researcher, Process MTS / Technology Lead, EES Group, Applied Materials, Inc.
Yinghong Qiao	Completed	2003 - 2008	Research Scientist, private battery company, Beijing

Yunhui Li	Completed	2003 - 2008	Research Associate, Centre of Science and Industry (COSI)
Evonne Baladuff	Completed	2000 - 2005	Associate Professor, Waynesburgh University
Patrick T. Hurley	Completed	2000 - 2004	Chief Technology Officer, A123 Systems
Shalini Sharma		2000 - 2003	(switched to Mahdi Abu-Omar's group upon my departure)
Jason Schmeltzer	Completed	1998 - 2002	Lecturer, UNC Asheville
Lon A. Porter, Jr.	Completed	1999 - 2003	Associate Professor (tenured), Wabash College
Kwangwook Choi	Completed	1997 - 1999	Research Scientist, LG Group, Korea
Hee Cheul Choi	Completed	1997 - 2001	Professor (tenured, with a chair), POSTECH, Korea

M. Sc. Students

Name	Status	Years Supervised	Present Position
Xiao Xing	Completed	2006 - 2010	
Yuan Guo	Completed	2005 - 2008	Graduate Student, University of Illinois at Urbana-Champaign
Vicki Lui	Completed	2003 - 2005	TEC Edmonton
Jason Klein	Completed	1999 - 2002	Scientist, Roche Pharmaceuticals

Postdoctoral Fellows

Name	Status	Years Supervised	Present Position
Bing Cao	In Progress	2016 -	JMB group, Postdoctoral Fellow
Binbin Yu	Completed	2015 - 2016	
Gang He	Completed	2014 - 2015	F1000 Professor, Xi'an, China
Delwar Sikder	Completed	2014 - 2015	Travelled, now looking for PDF
Xiaoming He	Completed	2013 - 2014	Marie Curie Fellowship, UK
Erik Lubber	Completed	2011 - 2014	JMB group, Research Associate
Ibrahim Al-Rafia	Completed	2012 - 2013	3M Canada, Calgary
Hosnay Mobarok	Completed	2011 - 2014	Postdoctoral Fellow, University of Alberta
Lawrence Huck	Completed	2010 - 2013	Manager, Gilead Sciences
Qun Chen	Completed	2010 - 2012	Research Manager, Shenzhen Capchem, China
Tonggang Jiu	Completed	2010 - 2012	Assistant Professor, Ningbo Institute of Materials Technology & Engineering
Weiwei Li	Completed	2010 - 2011	Top 100 Professor (Assistant Professor, tenure track), Chinese Academy of Science
David Rider	Completed	2007 - 2010	Assistant Professor (tenure track), Western Washington University

Curriculum vitae, August, 2017

Anastasia Elias	Completed	2007 - 2008	Assistant Professor (tenure track), University of Alberta
Vincent Wright	Completed	2006 - 2010	Scientist / Technologist, CSA
Brian Daly	Completed	2006 - 2008	Senior Research Scientist, Gilead Sciences
Dong Wang	Completed	2003 - 2009	Top 1000 Professor (Associate Professor, tenure track), Chinese Academy of Sciences
Usama Al-Atar	Completed	2009 - 2011	President, Solectra Light Consulting
Kavithaa Loganathan	Completed	2008 - 2009	Research Associate, Centre of Science and Industry (COSI)

Staff and Visitors

Name	Status	Progress	Years Supervised	Present Position
Peter Kalisvaart	Research Staff	In Progress	2016 -	JMB group, Research Coordinator
Lei Chen	Visiting Professor	Completed	2015 - 2016	JMB group, Sabbatical Professor from Hefei, China
Paul-Emile Trudeau	Research Staff	Completed	2014 - 2015	JMB group, Senior Laboratory Technologist
Kelli Luber	Administrator	In Progress	2014 -	JMB group, Admin Assistant
Brian Olsen	Research Staff	In Progress	2013 -	JMB group, Laboratory Systems Designer
Erik Luber	Research Staff	In Progress	2012 -	JMB group, Research Associate
Tate Hauger	Research Staff	In Progress	2011 -	JMB group, Research Engineer
Kenneth Harris	Research Staff	Completed	2008 - 2013	Senior Research Officer, NRC
Masato Aizawa	Research Associate	Completed	2003 - 2008	Senior Research Scientist, Panasonic, Japan
Lina Xu	Sabbatical professor from China	Completed	2009 - 2010	Professor, State Key Laboratory of Bioelectronics, Southeast University in Nanjing
Sang Sub	Sabbatical professor from Korea	Completed	2004 - 2006	Sabbatical Professor, Illin University, Korea

Aaron Dong	Technical Staff	Completed	2014 - 2015	Temporary Position – now travelling abroad.
Minkyu Kang	Technical Staff	Completed	2014 - 2014	Environment, Health & Safety at University of Alberta
Jennifer Ozdoba	Technical Staff	In Progress	2006 -	JMB group, Laboratory Manager
Greg Nilsson	Technical Staff	Completed	2004 - 2008	Institute for Research Construction

Undergraduate Students

Curriculum vitae, August, 2017

Name	Status	Years Supervised	Present Position
Marcus Stack	Completed	2016 - 2016	Undergraduate Research Initiative (URI) award winner
Sam Anderson	Completed	2016 - 2016	NSERC research award summer student
Yaqi Tu	Completed	2015 - 2015	returned for summer research now Undergraduate Student, Fudan University, China
Brandon Riches	Completed	2014 - 2015	Dynamax, Cochrane, AB
Yaqi Tu	Completed	2014 - 2014	Undergraduate Student, Fudan University, China
Kevan Bell	Completed	2014 - 2015	Applying to grad school
Peter Hermansen	Completed	2014 - 2015	Travelling abroad
Balazs Gyenes	Completed	2014 - 2015	Batteries / electric cars, Germany
Isabelle Tu	Completed	2013 - 2013	4th year undergraduate, University of Alberta
Patrick Fortin	Completed	2012 - 2013	Graduate Student, Simon Fraser University
Stephanie Bohaichuk	Completed	2013 - 2013	Graduate Student, Stanford University
Jared Geisinger	Completed	2013 - 2014	Undergraduate Student, University of Alberta
Grayson Ingram	Completed	2011 - 2012	Graduate Student, University of Toronto
Byung Jong Jung	Completed	2011 - 2012	Dentistry Program, University of Alberta
Fahim Rahman	Completed	2012 - 2012	Undergraduate Student, University of Alberta
Andrew Wong	Completed	2012 - 2012	Undergraduate Student, University of Alberta
Jeffrey Tait	Completed	2011 - 2012	Ph.D. Student (full EC scholarship), KU Belgium
Sam Maloney	Completed	2011 - 2011	Undergraduate Student, University of Alberta
Ben Nearingburg	Completed	2005 - 2006	Graduate Student, University of Alberta
David Grewar	Completed	2005 - 2006	Graduate Student, University of Toronto
Mark Paton	Completed	2006 - 2007	unknown
Xiangning Fan	Completed	2005 - 2006	M.D. (residency), Faculty of Medicine, University of Alberta
Kyle Park	Completed	2005 - 2006	last known: M.D. Program, University of Alberta
Nahid Ramji	Completed	2005 - 2006	deceased
Jason Shaw	Completed	2005 - 2006	unknown

Curriculum vitae, August, 2017

Katie Jennings	Completed	2002 - 2003	unknown
Melissa Donnelly	Completed	2002 - 2003	Lawyer, Indiana, USA
Joshua Weber	Completed	2002 - 2003	Lawyer, Indiana, USA
Todd Geders	Completed	1998 - 2002	M.D. (practicing), University of Wisconsin
Todd Richmond	Completed	1999 - 2001	unknown
Rica Buinsma	Completed	1998 - 2000	Received Ph.D. in biochemistry, University of Wisconsin, Madison; present position unknown
Bridget Owens	Completed	1999 - 2003	Received Ph.D. in chemistry, University of California, Santa Barbara; present position unknown
Lindsay Elliott	Completed	1999 - 2003	Received Ph.D. in chemistry, University of Illinois at Urbana-Champaign.
Janet Holland	Completed	1997 - 1998	Forensic Scientist, UK
Matthew J. Allen	Completed	1997 - 1999	Full Professor (tenured), Wayne State University

TEACHING HISTORY (1997-spring 2003 at Purdue University, fall 2003-present at University of Alberta)

Semester / Year	Course Number	Course Title	# Students, level	Teaching evaluation
Winter 2017	CHEM 333	Inorganic Materials Chemistry	35, undergraduate	4.8/5.0
Fall 2015	CHEM 436/536	Synthesis and Applications of Inorganic Nano-materials	29, graduate (of whom 6 were undergrads)	4.7/5.0
Fall 2014	CHEM 436/536	Graduate Materials Chemistry	16, graduate (of whom 3 were undergrads)	4.7/5.0
Fall 2013	CHEM 436/536	Graduate Materials Chemistry	28, graduate (of whom 5 were undergrads)	4.6/5.0
Fall 2012	CHEM 436/536	Graduate Materials Chemistry	23, graduate (of whom 3 were undergrads)	4.2/5.0
Winter 2012	CHEM 299	Research Opportunity Program in Chemistry	15, undergraduate	N/A
Fall 2011	CHEM 101/103	350, Introductory General Chemistry	200, undergraduate	4.4/5.0
Winter 2011	CHEM 299	Research Opportunity Program in Chemistry Seminar	15, undergraduate	N/A
Fall 2010	CHEM 299	Research Opportunity Program in Chemistry	15, undergraduate	N/A
Fall 2010	CHEM 101/103	Introductory General Chemistry	164, undergraduate	4.5/5.0
Winter 2010	CHEM 299	Research Opportunity Program in Chemistry Seminar	10, undergraduate	N/A
Fall 2009	CHEM 299	Research Opportunity Program in Chemistry Seminar	10, undergraduate	N/A
Fall 2009	CHEM 103	174, Introductory General Chemistry	undergraduate	4.2/5.0
2008 - 2009	No teaching - EWR Steacie Fellowship			
2007 - 2008	No teaching - EWR Steacie Fellowship			
Winter 2007	CHEM 333	Inorganic Materials Chemistry (new class conceived by JMB)	75, undergraduate	4.3/5.0
Winter 2006	CHEM 333	Materials Chemistry	75, undergraduate	4.5/5.0
Fall 2004	CHEM 241	Inorganic Chemistry	undergraduate	4.5/5.0
2003 - 2004	No teaching - new hire teaching relief			
Spring 2003	CHM 112	Introductory General Chemistry for Nurses	300, undergraduate	4.0/5.0
Fall 2002	CHM 116	Introductory General Chemistry	550, undergraduate	4.7/5.0
Fall 2001	CHM 641	Advanced Inorganic Chemistry	30, graduate	4.6/5.0
Spring 2001	CHM 116	Introductory General Chemistry	550, undergraduate	4.0/5.0
Fall 2000	CHM 641	Advanced Inorganic Chemistry	70, graduate	4.3/5.0
Spring 2000	CHM 695D	Seminar (Inorganic Chemistry)	graduate	N/A
Fall 1999	CHM 641	Advanced Inorganic Chemistry	30, graduate	4.9/5.0
Spring 1999	CHM 342	Inorganic Chemistry	70, undergraduate	4.9/5.0
Fall 1998	CHM 641	Advanced Inorganic Chemistry	30, graduate	4.9/5.0
Spring 1998	CHM 342	Inorganic Chemistry	70, undergraduate	4.5/5.0