

**YOUNAN XIA, Ph.D.**

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 Department of Materials Science and Engineering  
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**EDUCATION BACKGROUND**

<u>Institution</u>	<u>Degree</u>	<u>Dates</u>
Harvard University	Ph.D. <sup>a</sup>	1993–1996
University of Pennsylvania	M.S. <sup>b</sup>	1991–1993
University of Science and Technology of China	B.S. <sup>c</sup>	1982–1987
a) Ph.D. Dissertation Title: Soft Lithography: Micro- and Nanofabrication Based on Microcontact Printing and Replica Molding. Advisor: Professor George M. Whitesides		
b) M.S. Dissertation Title: I. Synthesis, Characterization and Protonic Acid Doping of Poly(2,5-dimethoxy-phenylenevinylene); II. Polyaniline Conformations Studied Using a UV-vis-NIR Spectroscopic Method. Advisor: Professor Alan G. MacDiarmid		
c) B.S. Dissertation Title: Experimental and Simulation Studies of Minimum Smoke Rocket Propellants. Advisor: Professor Shufen Li		

**EMPLOYMENT RECORD**

<u>Institution</u>	<u>Position</u>	<u>Dates</u>
Johns Hopkins University	Bloomberg Distinguished Professor (BDP) (Joint appointments: Materials Science & Engineering, Biomedical Engineering)	1/2026–Present
Georgia Institute of Technology	Brock Family Chair and Georgia Research Alliance (GRA) Eminent Scholar in Nanomedicine (Joint appointments: Biomedical Engineering, Chemistry & Biochemistry, Chemical & Biomolecular Engineering)	1/2012–12/2025
Washington University in St. Louis	James M. McKelvey Professor for Advanced Materials (Joint appointments: Biomedical Engineering, Radiology, Biochemistry & Molecular Biophysics. Adjunct: Chemistry, Chemical Engineering, Mechanical Engineering & Materials Science)	9/2007–12/2011
University of Washington	Professor of Chemistry (Adjunct appointments: Materials Science & Engineering, Chemical Engineering)	5/2004–9/2007
University of Washington	Associate Professor of Chemistry (Adjunct appointments: Materials Science & Engineering, Chemical Engineering)	5/2002–5/2004
University of Washington	Assistant Professor of Chemistry (Adjunct: Materials Science & Engineering)	7/1997–5/2002

Harvard University	Postdoctoral Fellow	8/1996–7/1997
Fujian Institute of Research on the Structure of Matter	Research Assistant	9/1987–5/1991

### **HONORS AND AWARDS**

ScholarGPS Highly Ranked Scholar Lifetime (#61 in all fields, #16 in Engineering, and #4 in Biomedical Engineering) among all academic scholars in the United States, <https://scholargps.com/>, 2025

Best Scientist Award, Research.com, 2025

Best Scientists in the World (ranked #45 in the world and #30 in the United States), Research.com, 2025

Highly Ranked Scholar—Lifetime—in the Field of Engineering and Computer Science, 2025

Elected member, National Academy of Inventors, 2024

Linus Pauling Medal, the Puget Sound, Oregon, and Portland Sections of American Chemical Society (ACS), 2024

Highly Cited Researchers in Chemistry, Clarivate Analytics, 2024

Materials Science Leader Award, Research.com, 2024

Best Scientists in the World (ranked #44 in the world and #31 in the United States), Research.com, 2024

ACS Award for Creative Invention, American Chemical Society (ACS), 2023

Best Scientists in the World (ranked #44 in the world and #31 in the United States), Research.com, 2023

Best Scientists in the field of Materials Science (ranked #6 in the world and #5 in the United States of America) and Materials Science Leader Award, <https://research.com/scientists-rankings/materials-science>, 2023

ScholarGPS #3 Ranking in Biomedical Engineering among all academic scholars in the United States, <https://scholargps.com/>, 2023

Highly Cited Researchers in Chemistry, Clarivate Analytics, 2023

Outstanding Achievement in Research Innovation Award, Georgia Institute of Technology, 2023

Best Scientists in the World (ranked #48 in the world and #33 in the United States), Research.com, 2022

Frontier Materials Scientists Award, International Union of Materials Research Society (IUMRS), 2022

World's Top Materials Scientists (ranked #5), <https://research.com/scientists-rankings/materials-science>, 2022

Highly Cited Researchers in Chemistry, Clarivate Analytics, 2022

World's Top 2% Scientists (ranked #87), <https://doi.org/10.17632/btchxktzyw.3>, 2021

Highly Cited Researchers in Chemistry, Clarivate Analytics, 2021

Highly Cited Researchers in Chemistry and Materials Science, Clarivate Analytics, 2020

World's Top 2% Scientists (ranked #82), <https://doi.org/10.17632/btchxktzyw.2>, 2019

Highly Cited Researchers in Chemistry and Materials Science, Clarivate Analytics, 2019

Sigma Xi Sustained Research Award, Georgia Institute of Technology, 2019

Highly Cited Researchers in Chemistry, Physics, and Materials Science, Clarivate Analytics, 2018

Special Creativity Award, National Science Foundation (NSF), 2018

MRS Medal, Materials Research Society (MRS), 2017

Inaugural Class of Hall of Fame, *Advanced Materials*, 2017

World's Top 2% Scientists (ranked #73), <https://doi.org/10.17632/btchxktzyw.1>, 2017

Highly Cited Researchers in Chemistry, Physics, and Materials Science, Clarivate Analytics, 2017

Outstanding Faculty Research Author Award, Georgia Institute of Technology, 2017

Highly Cited Researchers in Chemistry, Physics, and Materials Science, Thomson Reuters, 2016

Sigma Xi Best Faculty Paper Award, Georgia Institute of Technology, 2016

Highly Cited Researchers in Chemistry, Physics, and Materials Science, Thomson Reuters, 2015

Fellow, American Chemical Society (ACS), 2014

Highly Cited Researchers in Chemistry and Materials Science, Thomson Reuters, 2014

Nano Today Award, Elsevier, 2013

ACS Award in the Chemistry of Materials, American Chemical Society (ACS), 2013

Fred Kavli Distinguished Lectureship in Nanoscience, Materials Research Society (MRS), 2013

Top 100 materials scientists (No. 4) and top 100 chemists (No. 35) in the world from 2000-2010 based on the number of citations per paper, see <http://sciencewatch.com/dr/sci/misc/Top100Chemists2000-10/>

Fellow, American Institute for Medical and Biological Engineering (AIMBE), 2011

Top 10 chemists (No. 5) in the world from 1999-2009 based on the number of citations per paper, for details, see

<http://www.timeshighereducation.co.uk/story.asp?storyCode=409418&sectioncode=26>  
The 2nd most cited scientist in the field of nanomedicine, see <http://www.nano-biology.net/labs.php>  
Fellow, Materials Research Society (MRS), 2009  
NIH Director's Pioneer Award, National Institutes of Health (NIH), 2006  
Leo Hendrik Baekeland Award, the North Jersey Section of American Chemical Society (ACS), 2005  
Camille Dreyfus Teacher Scholar, Camille and Henry Dreyfus Foundation, 2002  
Fellow in Science and Engineering, David and Lucile Packard Foundation, 2000  
Research Fellow, Alfred P. Sloan Foundation, 2000  
Faculty Early Career Development Award, National Science Foundation (NSF), 1999  
Victor K. LaMer Award, American Chemical Society (ACS), 1999  
Oversea Young Investigator Award, Chinese Natural Science Foundation, 1999  
New Faculty Award, Camille and Henry Dreyfus Foundation, 1997  
ICI Student Award Finalist, American Chemical Society (ACS), 1997  
Stone Corporation Award for the Best Graduate Student, Graduate School of the University of Science and Technology of China, Chinese Academy of Sciences, 1988  
Guo-Mo-Rou Award for the Best Student (the highest honor), University of Science and Technology of China, Chinese Academy of Sciences, 1986

### **LECTURESHIPS**

Rosemary Schnell Distinguished Lectureship, International Institute for Nanotechnology, Northwestern University, Evanston, IL, May 2026  
Master Lectureship, College of Chemistry and Chemical Engineering, Beijing University of Chemical Technology, Beijing, China, 2025  
Dai Anbang Distinguished Lectureship, College of Chemistry and Chemical Engineering, Nanjing University, Nanjing, Jiangsu, China, 2025  
CT Chemistry Lectureship, Department of Chemistry, University of Connecticut, Storrs, CT, 2025  
Lu Jiaxi Distinguished Lectureship, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, Fujian, China, 2024  
Yungu Lectureship, College of Engineering, Westlake University, Hangzhou, China, 2024  
iNano Distinguished Lecture, Aarhus University, Aarhus, Denmark, 2023  
Frank C. Mathers Distinguished Lecture, Department of Chemistry, Indiana University, Bloomington, IN, 2022  
Distinguished Seminar Series, Department of Bioengineering, University of California, Riverside, CA, 2022  
Kenneth J. Klabunde Memorial Lecture, Department of Chemistry, Kansas State University, Manhattan, KS, 2022  
University Lecture, Southern University of Science and Technology, Shenzhen, Guangdong, China, 2018  
Margaret C. Etter Memorial Lecture in Materials Chemistry, University of Minnesota, Twin Cities, MN, 2018  
Rauscher Memorial Lectureship on Polymer and Materials Chemistry, Department of Chemistry and Chemical Biology, Rensselaer Polytechnic Institute, Troy, NY, 2018  
Distinguished Lecture, HKUST Jockey Club Institute for Advanced Study, Hong Kong University of Science and Technology, Hong Kong, 2017  
Closs Lecture, Department of Chemistry, University of Chicago, Chicago, IL, 2013  
Fred Kavli Distinguished Lectureship in Nanoscience, Materials Research Society (MRS) Spring Meeting, 2013  
Chair Lectureship, Department of Chemistry, University of Nebraska, Lincoln, NE, 2013  
The Ronald R. Fisher Lectureship in the Biochemical Sciences, Department of Chemistry & Biochemistry, University of South Carolina, Columbia, SC, 2013  
Discovery Lecture, Center for Nanophase Materials Sciences at Oak Ridge National Laboratory, Oak Ridge, TN, 2013  
Eastman Chemical Company Lectureship, Department of Polymer Science, University of Akron, Akron, OH, 2012  
Materials Day Distinguished Lecture, Materials Research Institute, Penn State University, State College, PA, 2012  
Honorary Bent Lecture, Department of Chemical Engineering, University of Missouri-Columbia, 2011  
New Power Lectureship, Department of Chemical Engineering, National Tsing Hua University, Taiwan, 2009

### **PROFESSIONAL OFFICES AND SERVICES**

Editorial Responsibilities

Editor-in-Chief (inaugural), *Materials and Interfaces*, 2024–Present

Associate Editor, *Nano Letters*, 2002–2019

Chairman (inaugural) of International Advisory Board, *Advanced Healthcare Materials*, 2011–2022

Member of Editorial Board, WIRES Nanomedicine and Nanotechnology, 2025–Present

Member of Editorial Board, *Information & Functional Materials*, 2024–Present

Member of Advisory Board, *Green Carbon*, 2023–Present

Member of Advisory Board, *Carbon Future*, 2023–Present

Member of Editorial Advisory Board, *Precision Chemistry*, 2023–Present

Member of Editorial Advisory Board, *National Science Review*, 2023–2027

Member of Executive Advisory Board, *Advanced Healthcare Materials*, 2022–Present

Member of Advisory Editorial Board, *BMEMat*, 2022–Present

Member of Editorial Advisory Board, *Accounts of Materials Research*, 2021–Present

Member of International Advisory Board, *ChemCatChem*, 2021–Present

Member of Editorial Advisory Board, *Nano Letters*, 2020–Present

Member of Advisory Board, *Chemical Reviews*, 2019–Present

Member of Advisory Board, *BME Frontiers*, 2019–Present

Member of Advisory Board, *Research*, 2018–2021

Member of Advisory Board, *ACS Applied Nano Materials*, 2018–2020

Member of International Advisory Board, *Small Methods*, 2017–Present

Member of International Advisory Board, *ChemNanoMat*, 2015–2022

Member of Editorial Advisory Board, *Chemical Physics Letters*, 2014–Present

Member of International Advisory Board, *Chemistry: A European Journal*, 2014–2021

Member of International Advisory Board, *Chinese Journal of Chemistry*, 2014–2017

Member of Editorial Advisory Board, *Cancer Nanotechnology*, 2014–Present

Member of International Advisory Board, *Particle & Particle Systems Characterization*, 2013–Present

Member of International Advisory Board, *Angewandte Chemie International Edition*, 2011–2020

Member of International Advisory Board, *Chemistry: An Asian Journal*, 2010–Present

Member of Editorial Advisory Board, *Accounts of Chemical Research*, 2010–2016

Member of Editorial Advisory Board, *Journal of Biomedical Optics*, 2010–2014

Member of Editorial Advisory Board, *Science of Advanced Materials*, 2009–2015

Member of Editorial Advisory Board, *Nano Research*, 2008–Present

Member of Editorial Advisory Board, *Nano Today*, 2006–Present

Member of Editorial Advisory Board, *Langmuir*, 2005–2010, 2013–2015

Member of Editorial Advisory Board, *Chemistry of Materials*, 2005–2007

Member of International Advisory Board, *International Journal of Nanotechnology*, 2003–Present

Member of Editorial Advisory Board, *Nano Letters*, 2002

Member of International Advisory Board, *Advanced Functional Materials*, 2001–Present

Co-Editor-in-Chief, *Encyclopedia of Nanomaterials*, Elsevier, 2020

Member of Advisory Board of the *World Scientific Series in Nanoscience and Nanotechnology*, World Scientific Publishers, 2009–Present

Member of Editorial Advisory Board, the *Dekker Encyclopedia of Nanoscience and Nanotechnology*, Marcel Dekker Inc., 2001

Co-Guest Editor of a Thematic Issue on Anisotropic Nanomaterials, *Chemical Reviews*, 2022

Guest Editor of a Special Issue in Honoring Professor Buddy Ratner, *Advanced Healthcare Materials*, 2022

Guest Editor of a Special Issue in Honoring Professor Nicolas Peppas, *Advanced Healthcare Materials*, 2022

Guest Editor of a Special Issue on Biomaterials Research at the Georgia Institute of Technology and Emory University, *Advanced Healthcare Materials*, 2021

Co-Guest Editor of a Thematic Issue on Advanced Materials and Methods for Catalysis and Electrocatalysis by Transition Metals, *Chemical Reviews*, 2021

Guest Editor of a Special Issue on Biomaterials in Honoring Professor George M. Whitesides, *Advanced Healthcare*

*Materials*, 2021

Co-Guest Editor of a Thematic Issue on Heterogeneous Single-Atom Catalysis, *Chemical Reviews*, 2020

Co-Guest Editor of a Special Issue on Nanoparticles for Catalysis, *Accounts of Chemical Research*, 2013

Co-Guest Editor of a Special Issue on Nanomaterials Research by Chinese Scientists, *Advanced Functional Materials*, 2010

Co-Guest Editor of a Special Issue on Materials Research at USTC, *Advanced Materials*, 2010

Co-Guest Editor of a Special Issue on Bionanotechnology, *Advanced Materials*, 2007

Co-Guest Editor of a Special Issue on Shaped-Controlled Nanostructures of Metals and Surface Plasmonics, *Materials Research Society (MRS) Bulletin*, 2005

Guest Editor of a Special Issue on Soft Lithography and Surface Patterning in Honoring Professor George M. Whitesides, *Advanced Materials*, 2004

Co-Guest Editor of a Special Issue on Nanowires, *Advanced Materials*, 2003

Guest Editor of a Special Issue on Photonic Crystals, *Advanced Materials*, 2001

Co-Guest Editor of a Special Issue on Materials Research in China, *Advanced Materials*, 1999

Book Co-Editor, *Nontraditional Approaches to Patterning and Their Applications*, Materials Research Society (MRS), 2004

Book Co-Editor, *Unconventional Approaches to Nanofabrication, with Applications in Photonics, Electronics and Sensing*, Materials Research Society (MRS), 2003

Book Co-Editor, *Nonlithographic and Lithographic Methods of Nanofabrication – From Ultralarge-Scale Integration to Photonics to Molecular Electronics*, Materials Research Society (MRS), 2000

Organization of Conferences

Member of International Advisory Committee, International Conference on Advanced Materials and Nano-Technology for Medicine, Perugia, Italy, June 2026

Member of International Advisory Committee, China Nano 2023, Beijing, China, August 2025

Member of International Scientific Committee, the 18<sup>th</sup> International Conference on Biomedical Engineering (ICBE2024), Singapore, December 2024

Member of International Advisory Committee, China Nano 2023, Beijing, China, August 2023

Member of International Advisory Board, the 7th Nano Today Conference, Guangzhou, China, November 2021

Member of International Advisory Committee, China Nano 2021, Beijing, China, August 2021 (canceled due to the pandemic)

Member of International Scientific Committee, IUPESM World Congress on Medical Physics and Biomedical Engineering 2021 (WC2021), Singapore, May 2021

Member of International Advisory Committee, International Conference on Medical Applications of Advanced Materials and Nano-Technology, Montecatini Terme, Italy, September 2020

Member of International Scientific Committee, the 17<sup>th</sup> International Conference on Biomedical Engineering (ICBE2019), Singapore, December 2019

Member of International Advisory Committee, China Nano 2019, Beijing, China, August 2019

Member of International Advisory Committee, the 5th International Conference on Electrospinning, Shanghai, China, June 2019

Organizing Committee, the 5th Global Congress and Expo on Materials Science & Engineering (GCEMSE-2019), Osaka, Japan, June 2019

Member of International Steering Committee, the 3rd International Conference on Polyol Synthesis, Madrid, Spain, September 2018

Member of International Advisory Committee, CIMTEC 2018, Salsomaggiore Terme, Italy, June 2018

Member of International Advisory Committee, the 4th International Conference on Electrospinning, Stellenbosch, South America, January 2018

Member of the International Scientific Committee, the 2017 International Conference on Clean Energy, Xi'an, China, December 2017

Member of International Advisory Committee, China Nano 2017, Beijing, China, September 2017

Member of International Technical Board, 4<sup>th</sup> China-United States Symposium on Energy, Shanghai, June 2017

Member of International Consulting Committee, the 4th Annual Conference of Chinese Society of Micro- &

Nanoscience and Technology and the 2016 International Conference of Nanobiology and Nanomedicine, Fuzhou, Fujian, China, December 2016

Member of International Scientific Committee, the 3rd International Conference on Bio-inspired and Bio-based Chemistry & Materials, Nice, France, October 2016

Member of International Steering Committee, the 2nd International Conference on Polyol Synthesis, Hikone, Japan, July 2016

Member of International Advisory Committee, the 3rd International Conference on Electrospinning, Otranto, Italy, June 2016

Member of International Advisory Board of the 4th *Nano Today* Conference, Dubai, December 2015.

Member of International Advisory Committee, China Nano 2015, Beijing, China, September 2015

Member of International Scientific Committee, the 2nd International Conference on Bio-inspired and Bio-based Chemistry & Materials, Nice, France, October 2014

Co-chair of the 3<sup>rd</sup> International Conference on Electrospinning, San Francisco, CA, August 2014

Member of International Scientific Committee, the 1st International Conference on Polyol Synthesis, Paris, France, June 2014

Member of International Advisory Committee, China Nano 2013, Beijing, China, September 2013

Member of International Steering Committee, Frontiers in Nanomedicine, *Small Sciences* Symposium, Nanyang Technological University and Wiley Materials Science, Singapore, December 2012

Member of International Advisory Committee, the 1st International Symposium on Polymer Ecomaterials (PEM 2012), Changchun, China, August 2012

Member of International Advisory Committee, Session Chair, the 2nd International Conference on Electrospinning, Jeju Island, Korea, May 2012

Member of International Advisory Committee, China Nano 2011, Beijing, China, September 2011

Co-organizer for a Symposium on Patterning and Assembly of Nanomaterials and Biomolecules for the International Conference on Materials for Advanced Technologies (ICMAT), Singapore, June 2011

Session Chair of a Symposium on Nanomaterials for Energy Conversion and Storage for the American Chemical Society (ACS) Spring Meeting, Anaheim, CA, March 2010

Member of Advisory Committee, the 1st International NanoArt Exhibition, Shanghai, China, November 2010

Member of International Advisory Committee, the 18th International Vacuum Congress, the 2010 International Conference on Nanoscience and Technology, and the 14th International Conference on Solid Surfaces, Beijing, August 2010

Session Chair of a Symposium on Multifunctional Nanoparticle Systems for the Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2010

Session Chair, Asia Communications and Photonics Conference and Exhibit, Shanghai, China, November 2009

Session Chair, the 2nd Asian Conference on Coordination Chemistry, Nanjing, China, November 2009

Member of International Advisory Committee, China Nano 2009, Beijing, China, September 2009

Co-organizer of China-USA Workshop on Nanomaterials, Hefei, June 2009

Member of International Advisory Committee, China Nano 2007, Beijing, China, June 2007

Organizer of a Symposium on the Synthesis and Assembly of Nanostructures for Materials Today Asia Meeting, Beijing, China, September 2007

Organizer of a Symposium in Honor of the Priestley Medalist Prof. George M. Whitesides for the American Chemical Society (ACS) Spring Meeting, Chicago, IL, March 2007

Co-organizer of a Symposium on Self-Assembly and Nanofabrication for the American Chemical Society (ACS) Fall Meeting, San Francisco, CA, September 2006

Member of Program Committee of a Symposium on Nanophotonic Materials (NP202), SPIE Optics and Photonics, San Diego, CA, July 2006

Co-organizer of a Symposium on Nanostructured Materials for the American Chemical Society (ACS) Northwest Regional Meeting (NORM), Reno, NV, June 2006

Co-organizer of a Symposium on Nanostructured Materials for the 80th Colloid and Surface Science Symposium of the American Chemical Society (ACS), Boulder, CO, June 2006

Co-organizer of a Symposium on Semiconductor Nanowires for the Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2006

Session Chair of a Symposium on Nanomanufacturing for the Materials Research Society (MRS) Spring Meeting,

San Francisco, CA, April 2006  
 Session Chair of a Symposium on Plasmonics for the Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2005  
 Session Chair of a Symposium on Self-Assembly for the Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2005  
 Member of Program Committee of a Symposium on Photonic Crystals and Photonic Crystal Fibers for Sensing Applications (SA115), SPIE Optics East, Boston, MA, October 2005  
 Co-organizer of a Symposium on Unconventional Fabrication Techniques for the Materials Research Society (MRS) Fall Meeting, Boston, MA, December 2003  
 Co-organizer of a Symposium on Nanostructured Materials and Nanophotonics for the SPIE, San Diego, CA, August 2003  
 Co-organizer of a Symposium on Self-Assembly and Nanostructured Materials for the Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2003  
 Subcommittee Member of the 2002 Conference on Lasers and Electro-Optics (CLEO'2002), Optical Materials: Fabrication and Characterization, Long Beach, CA, May 2002  
 Session Chair of a Symposium on Self-Assembly for the Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2002  
 Session Chair of a Symposium on Photonic Crystals for the American Chemical Society (ACS) 2001 National Spring Meeting, San Diego, CA, April 2001  
 Co-organizer of a Symposium on Nanofabrication for the Materials Research Society (MRS) Fall Meeting, Boston, MA, December 2000  
 Session Chair of a Symposium on Microfabrication for the Materials Research Society (MRS) Fall Meeting, Boston, MA, December 1999

#### Scientific Advisory Committee or Board

Scientific Advisory Board for Chemistry, Shanghai Academy of Natural Sciences (SANS), 2025–present  
 Science Committee, Future Science Prize, 2025–present  
 Founding Member of the International Advisory Board, Department of Biomedical Engineering, the University of Hong Kong, Hong Kong, 2024–present  
 Scientific Advisory Committee, National Science Foundation Growing Convergence Research (NSF-GCR) Project, Penn State University, 2020–2022  
 Scientific Advisory Committee, West Lake University, Hangzhou, Zhejiang, China, 2018–2021  
 Scientific Advisory Board, School of Physical Science and Technology, ShanghaiTech University, China, 2016–2021  
 Scientific Advisory Board, Nano Terra, Brighton, MA, 2010–2016  
 Scientific Advisory Committee, Korea Basic Science Institute (KBSI), 2010–2012  
 Scientific Advisory Committee, NESAC/BIO at the University of Washington, funded by the National Institute for Biomedical Imaging and Bioengineering of the National Institutes of Health, 2009–2019

#### INVITED LECTURES AND PRESENTATIONS

##### **2026**

- 587 “Putting Chemistry to Work for Nano, Bio, and Energy Applications”, International Institute for Nanotechnology, Northwestern University, Evanston, IL, May 2026. (Rosemary Schnell Distinguished Lectureship)
- 586 “Putting Chemistry to Work for Nano, Bio, and Energy Applications”, Department of Materials Science and Engineering, University of Pennsylvania, Philadelphia, PA, April 2026.
- 585 “Gold Nanocrystals with a Truly Spherical Shape for Sensing and Catalytic Applications”, American Chemical Society (ACS) Spring Meeting, Atlanta, Georgia, March 2026.
- 584 “Anisotropic Colloidal Particles through Symmetry Breaking”, American Chemical Society (ACS) Spring Meeting, Atlanta, Georgia, March 2026.
- 583 “Nanobottles for Encapsulation and Theranostic Applications”, Department of Chemical and Environmental Engineering, University of California, Riverside, CA, March 2026

**2025**

582 "Steady-State Synthesis of Multi-Metallic Nanocrystals with Well-Controlled Compositions and Facets", Pacificchem 2025, Honolulu, Hawaii, December 2025.

581 "Gold Nanospheres with Uniform Sizes and Citrate-Capped Surfaces for Point-of-Care Applications", Pacificchem 2025, Honolulu, Hawaii, December 2025.

580 "Advanced Catalytic Materials for Hydrogen Fuel Cells", Pacificchem 2025, Honolulu, Hawaii, December 2025.

579 "Nanobottles for Encapsulation and Theranostic Applications", College of Pharmacology, Jiangsu University, Zhenjiang, Jiangsu, PR China, November 2025.

578 "Three Decades of Nanomaterials Research: From Fundamental Studies to Applications", Beijing University of Chemical Technology, Beijing, PR China, November 2025

577 "Putting Chemistry to Work for Nano, Bio, and Energy Applications", College of Chemistry and Chemical Engineering, Nanjing University, Nanjing, Jiangsu, PR China, October 2025. (Dai Anbang Lectureship)

576 "Nanobottles for Encapsulation and Theranostic Applications", Department of Biomedical Engineering, University of Massachusetts, Amherst, MA, October 2025.

575 "Colloidal Nanocrystals: Moving from Academic Studies to Industrial Applications", the 26th YUCOMAT Conference, Herceg Novi, Montenegro, September 2025. (Plenary)

574 "Uniform Gold Nanospheres Capped by Citrate Species for Quantitative Imaging and Lateral Flow Immunoassay", American Chemical Society (ACS) Fall Meeting, Washington DC, August 2025.

573 "Uniform Carbon Nanospheres Loaded with a High Content of Single Metal Atoms for Selective Oxygen Reduction", American Chemical Society (ACS) Fall Meeting, Washington DC, August 2025.

572 "Rational Development of Advanced Catalysts for Electrochemical Production of Hydrogen Peroxide", American Chemical Society (ACS) Fall Meeting, Washington DC, August 2025.

571 "Three Decades of Nanomaterials Research: Curiosity vs. Random Walk", Department of Chemical Engineering, National Tsinghua University, Hsinchu, Taiwan, June 2025.

570 "Colloidal Metal Nanocrystals as the Next-Generation Catalytic Materials", the 2025 Taiwan International Conference on Catalysis (TICC-2025), National Tsinghua University, Hsinchu, Taiwan, June 2025. (Plenary)

569 "Photothermal Hybrid Materials for Controlling Phase Transition, Drug Release, and Water Purification", EuroPolymer Conference (EUPOC) 2025-MacroLight, Bertinoro, Italy, May 2025.

568 "Three Decades of Nanomaterials Research: Curiosity vs. Random Walk", Department of Chemistry, University of Connecticut, Storrs, CT, May 2025.

567 "Putting Chemistry to Work for Nano, Bio, and Energy Applications", Department of Chemistry, University of Connecticut, Storrs, CT, April 2025. (CT Chemistry Lectureship)

566 "Putting Chemistry to Work for Nano, Bio, and Energy Applications", UCSC's 60th Anniversary Symposium, Department of Chemistry and Biochemistry, University of California, Santa Cruz, CA, April 2025. (Plenary)

565 "Toward Scalable and Autonomous Synthesis of Colloidal Metal Nanocrystals", Materials Research Society (MRS) Spring Meeting, Seattle, WA, April 2025.

564 "Nanofiber-based Scaffolds for Tissue Repair and Regeneration", Materials Research Society (MRS) Spring Meeting, Seattle, WA, April 2025.

563 "Quantification, Exchange, and Removal of Surface Ligands on Metal Nanocrystals", Nanointerface Chemistry, American Chemical Society (ACS) Global Virtual Symposia, March 2025. (Plenary)

562 "Nanocomposite Scaffolds with Graded Mechanical Properties for Tendon-to-Bone Repair", American Chemical Society (ACS) Spring Meeting, San Diego, CA, March 2025.

561 "Colloidal Synthesis of Noble-Metal Nanocrystals in Metastable Phases", American Chemical Society (ACS) Spring Meeting, San Diego, CA, March 2025.

560 "Nanobottles for Encapsulation and Theranostic Applications", Pittcon Meeting, Boston, MA, March 2025.

559 "Biomimetic Scaffolds for Tissue Repair and Regeneration", College of Engineering, Texas Tech University, Lubbock, TX, February 2025.

558 "Electrospun Nanofibers for Medicine and Chemical/Energy Conversion", Institute of Materials, University of Texas, Austin, TX, February 2025.

**2024**

557 "Putting Chemistry to Work for Nano, Bio, and Energy Applications", College of Chemistry and Chemical

Engineering, Xiamen University, Xiamen, Fujian, December 2024. (Lu Jiaxi Distinguished Lectureship)

556 "Putting Chemistry to Work for Nano, Bio, and Energy Applications", College of Materials Science and Engineering, Huaqiao University, Xiamen, Fujian, December 2024.

555 "Phase-Controlled Synthesis of Noble-Metal Nanocrystals: Templating Effect *versus* Reaction Kinetics", Phase Engineering of Nanomaterials by Nature Conference, Hong Kong, November 2024.

554 "Rational Development of Cu-Based Electrocatalysts toward CORR with Enhanced Performance", ACS Southeast Regional Meeting, Atlanta, GA, October 2024.

553 "Putting Chemistry to Work for Nano, Bio, and Energy Applications", Department of Materials Science and Engineering, University of Washington, Seattle, WA, October 2024.

552 "Putting Chemistry to Work for Nano, Bio, and Energy Applications", Pauling Medal Award Symposium, Corvallis, OR, October 2024. (Medal awardee talk)

551 "Putting Chemistry to Work for Nano, Bio, and Energy Applications", Department of Materials Science and Engineering, Johns Hopkins University, MD, September 2024.

550 "Colloidal Nanocrystals: Moving from Academic Studies to Industrial Applications", American Chemical Society (ACS) Fall Meeting, Denver, CO, August 2024.

549 "Quantification and Exchange of Ligands on the Surface of Noble-Metal Nanocrystals", American Chemical Society (ACS) Fall Meeting, Denver, CO, August 2024.

548 "Icosahedron-Derived Pt Nanocrystals with Enhanced Activity and Durability toward Oxygen Reduction", American Chemical Society (ACS) Fall Meeting, Denver, CO, August 2024.

547 "Probing the Surface of Silver Nanocrystals Suspended in the Original Reaction Solution by SERS", American Chemical Society (ACS) Fall Meeting, Denver, CO, August 2024.

546 "Biomimetic Scaffolds Based on Electrospun Nanofibers for Peripheral Nerve Repair", Electrospin 2024, Krakow, Poland, June 2024.

545 "Nanofibrous Scaffolds for Peripheral Nerve Repair", the 12th World Biomaterials Congress (WBC2024), Daegu, Republic of Korea, May 2024. (Keynote)

544 "Nanobottles for Encapsulation, Controlled Release, and Related Applications", Department of Chemical Engineering, Sungkyunkwan University, Seoul, Korea, May 2024.

543 "Advanced Catalytic Nanomaterials for Fuel Cell Application", Department of Chemical Engineering, Korea University, Seoul, Korea, May 2024.

542 "Three Decades of Research in Nanomaterials: From Fundamental Studies to Commercial Applications", Department of Chemical Engineering, Seoul National University, Seoul, Korea, May 2024.

541 "Three Decades of Research in Nanomaterials: From Fundamental Studies to Commercial Applications", College of Chemistry and Chemical Engineering, Southeast University, Nanjing, China, May 2024. (University Lectureship)

540 "Nanomaterials Research: Curiosities, Fundamental Studies, and Commercial Applications", Yungu Lectureship, College of Engineering, Westlake University, Hangzhou, China, May 2024.

539 "Shape-Controlled Synthesis of Metal Nanocrystals: The Roles of Surface Capping Agents", Applications of Laser Spectroscopy in Biology, Chemistry and Materials Studies, Guilin, China, May 2024.

538 "Putting Nanomaterials to Work for Energy and Biomedical Applications", 2024 Spring Meeting of Korean Society of Industrial and Engineering Chemistry (KSIEC), Busan, Republic of Korea, May 2024. (Plenary)

537 "Advanced Catalytic Nanomaterials for Fuel Cell Application", Department of Chemistry, University of California, Riverside, CA, April 2024.

536 "Advanced Catalytic Nanomaterials for Fuel Cell Application", Department of Chemical Engineering, University of South Carolina, Columbus, SC, March 2024.

535 "Multi-Metallic Electrocatalysts with Well-controlled Compositions and Surface Structures", American Chemical Society (ACS) Spring Meeting, New Orleans, LA, March 2024.

534 "Rational Development of Pt Catalysts with Enhanced Activity and Durability toward Oxygen Reduction", American Chemical Society (ACS) Spring Meeting, New Orleans, LA, March 2024.

533 "Toward Cost-Effective and Sustainable Use of Platinum in Energy Conversion", Harvard 2024 Alumni Annual Meeting: Energy Materials, March 2024. (Virtual presentation)

## 2023

532 "Nanobottles for Encapsulation, Controlled Release, and Graduate Training", 2023 NSF Nanoscale Science

and Engineering Grantees Conference, Alexandria, VA, December 2023. (Keynote, canceled due to family emergency)

531 "Platinum Catalysts with Enhanced Activity and Durability toward Oxygen Reduction", Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2023.

530 "Putting Chemistry to Work for Nano, Energy, and Medicine", Department of Chemical Engineering, University of Maryland, College Park, MD, October 2023. (Virtual presentation)

529 "Nanobottles for Encapsulation and Controlled Release", BMEMat Lecture, September 2023. (Virtual presentation)

528 "Advanced Catalytic Nanomaterials for Green Carbon", 2023 International Conference on Green Carbon, Qingdao, Shandong, P. R. China, July 2018. (Keynote, virtual presentation)

527 "Polyol Synthesis of Phase-Controlled Metal Nanocrystals", Université Paris Cité, Paris, France, June 2023. (Virtual presentation)

526 "Colloidal Synthesis of Copper Nanocrystals for Plasmonic and Related Applications", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2023.

525 "Enhancing the Catalytic Properties of Palladium Nanocrystals by Transforming Them into Palladium Hydride", American Chemical Society (ACS) Spring Meeting, Indianapolis, IN, March 2023.

524 "Silver Nanowires: From Serendipity to Robust Synthesis and Commercial Application", American Chemical Society (ACS) Spring Meeting, Indianapolis, IN, March 2023.

523 "Putting Chemistry to Work for Nano, Energy, and Medicine", iNano Distinguished Lecture, Aarhus University, Aarhus, Denmark, January 2023.

522 "Putting Chemistry to Work for Nano, Energy, and Medicine", GDCh-Kolloquium, Goethe University, Frankfurt, Germany, January 2023.

## 2022

521 "Advanced Nanomaterials: From Bench to Bedside", Frank C. Mathers Distinguished Lecture, Department of Chemistry, Indiana University, Bloomington, IN, October 2022.

520 "Toward Controllable and Predictable Synthesis of Colloidal Metal Nanocrystals", Department of Chemistry, Indiana University, Bloomington, IN, October 2022.

519 "Biomimetic Scaffolds for Tissue Repair and Regeneration", Nano@Tech Seminar, Georgia Institute of Technology, Atlanta, GA, September 2022.

518 "Putting Gold Nanocages to Work for Biomedical Applications", the 2022 International Gold Conference, Quebec City, Canada, July 2022. (Keynote talk, virtual presentation)

517 "Electrospun Nanofibers for Regenerative Medicine", Polymers 2021. New Trends in Polymer Science: Health of the Planet, Health of the People, Turin, Italy, June 2022. (Plenary talk, withdrawn due to the pandemic)

516 "Phase-Controlled Synthesis of Colloidal Metal Nanocrystals", Gordon Research Conference on "Noble Metal Nanoparticles", South Hadley, MA, June 2022.

515 "Colloidal Synthesis of Metal Nanocrystals: Separating Nucleation from Growth Using a Flow Reactor", the 241st Electrochemical Society (ECS) Meeting, Vancouver, Canada, May 2022. (Withdrawn due to the pandemic)

514 "Putting Chemistry to Work for Nano and Biomedical Research", International Conference on Frontier Materials 2022, May 2022. (Virtual presentation)

513 "Biomimetic Scaffolds for Tissue Repair and Regeneration", Department of Bioengineering, University of Washington, Seattle, WA, May 2022.

512 "Biomimetic Scaffolds for Tissue Repair and Regeneration", Department of Bioengineering, University of California at Riverside, CA, April 2022.

511 "Toward Controllable and Predictable Synthesis of Colloidal Metal Nanocrystals", Kenneth J. Klabunde Memorial Lecture, Department of Chemistry, Kansas State University, Manhattan, KS, April 2021.

510 "Pt-Co Intermetallic Nanocrystals with Enhanced Activity and Durability toward Oxygen Reduction", American Chemical Society (ACS) Spring Meeting, San Diego, CA, March 2022.

509 "Shape-Controlled Nanocrystals and Single-Crystal Substrates: Similarity and Difference", American Chemical Society (ACS) Spring Meeting, San Diego, CA, March 2022.

508 "Colloidal Synthesis of Metal Nanocrystals in Metastable Crystal Structures", American Chemical Society

(ACS) Spring Meeting, San Diego, CA, March 2022.

## 2021

- 507 "How to Control Both the Crystal and Surface Structures of Metal Nanocrystals", Pacificchem 2021, Honolulu, HI, December 2021.
- 506 "Shape-Controlled Synthesis of Rhodium Nanocrystals for Catalytic/Electrocatalytic Applications", American Chemical Society (ACS) Fall Meeting, Atlanta, GA, August 2021. (Online presentation)
- 505 "Toward Controllable and Predictable Synthesis of Colloidal Metal Nanocrystals", The Texas Materials Institute, University of Texas, Austin, April 2021. (Online presentation)
- 504 "Gold Nanocages for Effective, Localized Plasmonic Heating and Related Applications", Materials Research Society (MRS) Spring Meeting, Seattle, WA, April 2021. (Withdrawn due to the pandemic)
- 503 "Janus Bimetallic Nanocrystals: From Synthesis to Application", Materials Research Society (MRS) Spring Meeting, Seattle, WA, April 2021. (Withdrawn due to the pandemic)
- 502 "Embedding Gold Nanocages in Polymers to Achieve Advanced Applications", 2021 TMS Annual Meeting & Exhibition, Orlando, FL, March 2021. (Keynote talk, withdrawn due to the pandemic)

## 2020

- 501 "Putting Nanomaterials to Work for Biomedical Research", BMES Faculty Research Talk, Georgia Institute of Technology, Atlanta, GA, November 2020. (Online presentation)
- 500 "Toward Predictable Synthesis of Colloidal Metal Nanocrystals", School of Chemical Engineering, Oklahoma State University, Stillwater, OK, September 2020. (Online presentation)
- 499 "Toward Controllable and Predictable Synthesis of Colloidal Metal Nanocrystals", the 1st KAIST Emerging Materials Symposium, Daejon, Korea, September 2020. (Keynote, virtual meeting)
- 498 "Icosahedral Nanocrystals for Both Fundamental Studies and Catalytic Applications", American Chemical Society (ACS) Fall Meeting, San Francisco, CA, August 2020. (Virtual meeting)
- 497 "Pd-Cu Bimetallic Nanocrystals with Enhanced Catalytic Activity Toward Carbon Dioxide Reduction", American Chemical Society (ACS) Fall Meeting, San Francisco, CA, August 2020. (Virtual meeting)
- 496 "A Nanomaterial-Based System for the Controlled Generation of Free Radicals inside Cells", American Chemical Society (ACS) Fall Meeting, San Francisco, CA, August 2020. (Virtual meeting)
- 495 "Synthesis and Applications of Polymer-Metal Hybrid Colloids with a Janus Structure", American Chemical Society (ACS) Spring Meeting, Philadelphia, PA, March 2020. (Canceled due to the pandemic)
- 494 "Phase- and Facet-Controlled Ruthenium Nanocrystals for Catalytic Applications", American Chemical Society (ACS) Spring Meeting, Philadelphia, PA, March 2020. (Canceled due to the pandemic)
- 493 "Ir-Based Electrocatalysts for the Oxygen Evolution Reaction", American Chemical Society (ACS) Spring Meeting, Philadelphia, PA, March 2020. (Canceled due to the pandemic)

## 2019

- 492 "Oriented Attachment: An Alternative Mechanism for the Growth of Nanostructures", Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2019.
- 491 "Nanowires through Oriented Attachment or Nanoscale Self-assembly", AIChE Annual Meeting, Orlando, FL, October 2019.
- 490 "Toward Controllable and Predictable Synthesis of Colloidal Metal Nanocrystals", ACS Publications webinar for the celebration of National Nanotechnology Day 2019, with the title of "Constructing the Nanoworld: Progress and Challenges in Material Design", October 2019.
- 489 "Endocytosis and Exocytosis of Nanoparticles by Cells", American Chemical Society (ACS) Fall Meeting, San Diego, CA, August 2019.
- 488 "Phase-controlled Synthesis of Colloidal Metal Nanocrystals", American Chemical Society (ACS) Fall Meeting, San Diego, CA, August 2019.
- 487 "1D Nanomaterials for Flexible and Stretchable Bioelectronics", Mi-Bio Summit on Flexible and Stretchable Bioelectronics, Purdue University, West Lafayette, IN, July 2019.
- 486 "Towards Predictable Synthesis of Colloidal Metal Nanocrystals", 13<sup>th</sup> International Nanoscience Student Conference, Beijing, China, July 2019.
- 485 "Towards Predictable Synthesis of Colloidal Metal Nanocrystals", Beijing Institute of Technology, Beijing,

China, July 2019.

484 "Towards Predictable Synthesis of Colloidal Metal Nanocrystals", Gordon Research Conference on "Crystal Growth and Assembly", Manchester, NH, June 2019.

483 "Maximize Neurite extension on Electrospun Nanofibers for Peripheral Nerve Repair", The 6<sup>th</sup> International Conference on Electrospinning, Shanghai, China, June 2019.

482 "Towards Predictable Synthesis of Colloidal Metal Nanocrystals", Nankai University, Tianjin, China, June 2019.

481 "Putting Nanomaterials to Work for Biomedical and Energy Research", Faculty of Engineering, Monash University, Melbourne, Australia, June 2019.

480 "Putting Gold Nanocages to Work for Biomedical Applications", Workshop on eHealth Materials & Devices, University of Technology Sydney, Sydney, Australia, June 2019.

479 "Towards Predictable Synthesis of Colloidal Metal Nanocrystals", Department of Chemistry, University of New South Wales, Sydney, Australia, June 2019.

478 "Towards Predictable Synthesis of Colloidal Metal Nanocrystals", Platinum Seminar, Department of Chemical Engineering, University of Melbourne, Australia, June 2019.

477 "Functionalization of Colloidal Particles through Symmetry Breaking", Functional NanoColloids Symposium, Monash University, Melbourne, Australia, June 2019.

476 "Putting Electrospun Nanofibers to Work for Biomedical Research", EuroPolymer Conference (EUPOC), Como, Lago di Como, Italy, May 2019.

475 "Towards Predictable Synthesis of Colloidal Metal Nanocrystals", Materials Science Program, University of California at Riverside, CA, May 2019.

474 "Autocatalytic Surface Reduction for Shape-Controlled Synthesis of Metal Nanocrystals", Materials Research Society (MRS) Spring Meeting, Phoenix, AZ, April 2019.

473 "Putting Nanomaterials to Work for Biomedical Research", Global Health Lecture, Department of Biomedical Engineering, Rensselaer Polytechnic Institute, Troy, NY, April 2019.

472 "Putting Electrospun Nanofibers to Work for Biomedical Research", Surgery Research Forum, University of Nebraska Medical Center, Omaha, NE, April 2019.

471 "Towards Predictable Synthesis of Colloidal Metal Nanocrystals", Department of Chemistry, University of Illinois, Urbana-Champaign, IL, April 2019.

470 "Shape-Controlled Metal Nanocrystals: The Next-Generation Heterogeneous Catalysts?", American Chemical Society (ACS) Spring Meeting, Orlando, FL, April 2019.

469 "Shape-Controlled Bimetallic Nanocrystals for Fuel Cell Applications", American Chemical Society (ACS) Spring Meeting, Orlando, FL, April 2019.

468 "Autocatalytic Surface Reduction and Its Role in the Synthesis of Metal Nanocrystals", American Chemical Society (ACS) Spring Meeting, Orlando, FL, April 2019.

467 "Graded Surfaces and Materials for Biological and Biomedical Applications", American Chemical Society (ACS) Spring Meeting, Orlando, FL, April 2019.

466 "Phase-Change Materials for Controlled Release and Related Biomedical Applications", TMS Annual Meeting, San Antonio, TX, March 2019.

465 "Colloidal Metal Nanocrystals Enclosed by a Single Facet: A New Platform for Investigating Catalytic Reactions", Gordon Research Conference on "Chemical Reactions at Surfaces", Ventura, CA, February 2019.

## 2018

464 "Putting Nanomaterials to Work for Biomedical Research", University Lecture, Southern University of Science and Technology, Shenzhen, Guangdong, China, December 2018.

463 "All Roads Lead to Rome: But Don't Forget About Curiosity, Intuition, Persistency and Good Luck", "Revolutionaries" Lecture Series, Student Governance Association, Georgia Institute of Technology, Atlanta, GA, December 2018.

462 "Recent Developments in the Design and Synthesis of Platinum-based Catalysts for Fuel Cell Application", Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2018.

461 "Facet-controlled Palladium Nanocrystals for Selective Catalysis", Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2018.

460 "Phase-Change Materials for Controlled Release and Related Applications", Vanderbilt Institute for

Nanoscale Science and Engineering, Vanderbilt University, Nashville, TN, November 2018.

459 "Shape-controlled Copper Nanocrystals for Plasmonic and Related Applications", SCIX 2018, Atlanta, GA, October 2018.

458 "Predictable and Deterministic Synthesis of Colloidal Metal Nanocrystals", Margaret C. Etter Memorial Lecture in Materials Chemistry, University of Minnesota, Twin Cities, MN, October 2018.

457 "Anisotropic Colloidal Particles through Symmetry Breaking", The First Symposium on Anisotropic Particles – Tailoring Shape, Interactions and Structures, University of Konstanz, Konstanz, Germany, September 2018. (Plenary talk)

456 "Putting Nanomaterials to Work for Biomedical Research", Biomedical Engineering Workshop, University of Science and Technology of China, Hefei, Anhui, China, September 2018.

455 "Predictable and Deterministic Synthesis of Colloidal Metal Nanocrystals", Institute of Solid State Physics, Chinese Academy of Sciences, Hefei, Anhui, September 2018.

454 "Phase-Change Materials for Controlled Release and Related Biomedical Applications", the 4<sup>th</sup> International Conference on Energy and Biological Materials, University of Science and Technology of China, Hefei, Anhui, China, September 2018. (Plenary talk)

453 "Towards Predictable and Deterministic Synthesis of Colloidal Nanocrystals", American Chemical Society (ACS) Fall Meeting, Boston, MA, August 2018.

452 "Advanced Nanomaterials for Aerospace and Related Applications", American Chemical Society (ACS) Fall Meeting, Boston, MA, August 2018.

451 "New Catalytic Materials through Atomic Layer-by-Layer Deposition", American Chemical Society (ACS) Fall Meeting, Boston, MA, August 2018.

450 "Synthesis and Catalytic Applications of Ru Nanocrystals with Well-Controlled Facets and an fcc Structure", American Chemical Society (ACS) Fall Meeting, Boston, MA, August 2018.

449 "Quantifying the Cellular Uptake and Sub-Cellular Distributions of Nanoparticles", American Chemical Society (ACS) Fall Meeting, Boston, MA, August 2018.

448 "Mitigating the Off-Target Toxicity of Nanomedicines through Controlled Release", American Chemical Society (ACS) Fall Meeting, Boston, MA, August 2018.

447 "Gold Nanocages: A Multifunctional Platform for Nanomedicine and Beyond", the 19th International Symposium on Small Particles and Inorganic Clusters (ISSPIC-19), Hangzhou, Zhejiang, China, August 2018.

446 "Putting Nanomaterials to Work for Biomedical and Energy Applications", 2018 International Seminar on Advanced Materials Research (2018 ISAMR), Shanghai, China, August 2018. (Plenary talk)

445 "Putting Nanomaterials to Work for Biomedical and Energy Research", Center for Cooperative Research in Biomaterials, CIC BiomaGUNE, San Sebastian, Spain, July 2018.

444 "Colloidal Metal Nanocrystals: From Polyol-Mediated Synthesis to Seeded Growth", the 3<sup>rd</sup> International Conference on Polyol-Mediated Synthesis, Madrid, Spain, June 2018. (Plenary talk)

443 "Nanomedicine: The Concept, Success, Opportunities, and Challenges", Minnesota Nano Center, University of Minnesota, Minneapolis, MN, June 2018.

442 "Surface Capping and the Shape Evolution of Colloidal Metal Nanocrystals", the 233<sup>rd</sup> Electrochemical Society (ECS) meeting, Seattle, WA, May 2018. (Keynote talk)

441 "Symmetry Breaking during the Synthesis of Nanoparticles", Soft Matter Forefront Symposium, Georgia Institute of Technology, Atlanta, GA, April 2018.

440 "Predictable and Deterministic Synthesis of Colloidal Metal Nanocrystals", Rauscher Memorial Lectureship on Polymer and Materials Chemistry, Department of Chemistry and Chemical Biology, Rensselaer Polytechnic Institute, Troy, NY, April 2018.

439 "Controlling the Growth Mode of Nanocrystal Seeds with Hollow Interior and Porous Walls", Materials Research Society (MRS) Spring Meeting, Phoenix, AZ, April 2018.

438 "Bimetallic Janus Nanocrystals", American Chemical Society (ACS) Spring Meeting, New Orleans, LA, March 2018.

437 "Rational Design and Synthesis of Pt-Based Catalysts for Fuel Cell Applications", German Physical Society (DPG) and the European Physical Society (EPS) Annual Meeting, Berlin, March 2018.

## 2017

436 "Towards Cost-Effective and Sustainable Use of Precious Metals in Catalysis and Medicine", Materials

Research Society (MRS) Fall Meeting, Boston, MA, November 2017 (plenary, MRS Medal award).

435 "Towards Predictable and Deterministic Synthesis of Colloidal Metal Nanocrystals", Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2017 (plenary, symposium X).

434 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Department of Chemical Engineering, University of Illinois, Chicago, IL, November 2017.

433 "Platinum-Based Nanocages as a New Class of Catalysts toward the Oxygen Reduction Reaction", American Chemical Society (ACS) Fall Meeting, Washington DC, August 2017.

432 "Engineering the Pt/CeO<sub>2</sub> Interface for the Development of Advanced Catalysts", American Chemical Society (ACS) Fall Meeting, Washington DC, August 2017.

431 "Probing the Cell-Nanomaterial Interaction with Gold Nanostructures", American Chemical Society (ACS) Fall Meeting, Washington DC, August 2017.

430 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Xi'an Jiaotong University, Xi'an, China, July 2017.

429 "Putting Nanomaterials to Work for Biomedical and Energy Research", Nanjing University, Nanjing, China, July 2017.

428 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", HKUST Jockey Club Institute for Advanced Study Distinguished Lecture, Hong Kong University of Science and Technology, Hong Kong, June 2017.

427 "Putting Electrospun Nanofibers to Work for Tissue Regeneration", Institute of Textiles and Clothing, The Hong Kong Polytechnic University, Hong Kong, June 2017.

426 "Towards Deterministic Synthesis of Colloidal Metal Nanocrystals", Department of Chemistry, The University of Hong Kong, Hong Kong, June 2017.

425 "Rational Design and Synthesis of Pt-Based Catalysts toward Oxygen Reduction for Fuel Cell Application", the 4<sup>th</sup> China-United States Symposium on Energy, Shanghai, China, June 2017. (Plenary talk)

424 "Towards Deterministic Synthesis of Colloidal Metal Nanocrystals", the 12th US-Sino Nano Workshop, Beijing, China, May 2017.

423 "Colloidal Metal Nanocrystals: From Academic Studies to Industrial Applications", School of Materials Science and Engineering, University of Science and Technology Beijing, Beijing, China, May 2017.

422 "Putting Nanomaterials to Work for Biomedical and Energy Research", National Center for Nano Science and Technology, Beijing, China, May 2017.

421 "Towards a Quantitative Knob for Controlling the Synthesis of Metal Nanocrystals", Institute of Functional Nano- & Soft Materials, Soochow University, Suzhou, China, May 2017.

420 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Southeast University, Nanjing, Jiangsu, May 2017.

419 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Advanced Materials Symposium for the Celebration of 120<sup>th</sup> Anniversary of Zhejiang University, Hangzhou, Zhejiang, May 2017. (Keynote talk)

418 "Rational Design and Synthesis of Pt-Based Catalysts for Fuel Cell Applications", APS Physics Next Workshop: Materials Design and Discovery, Riverhead, NY, May 2017.

417 "Towards a Quantitative Knob for Controlling the Synthesis of Metal Nanocrystals", Department of Chemistry, University of California, Berkeley, CA, April 2017.

416 "Nanofiber-Based Conduits with a Honeycomb Structure for Peripheral Nerve Repair", Materials Research Society (MRS) Spring Meeting, Phoenix, AZ, April 2017.

415 "Shape-Controlled Synthesis of Copper Nanocrystals", Materials Research Society (MRS) Spring Meeting, Phoenix, AZ, April 2017.

414 "Gold Nanocages as Photothermal Transducers for Controlled Release and Sensing Applications", Materials Research Society (MRS) Spring Meeting, Phoenix, AZ, April 2017.

413 "How is the Metal Precursor Reduced during a Synthesis of Colloidal Nanocrystals?", American Chemical Society (ACS) Spring Meeting, San Francisco, CA, April 2017.

412 "Colloidal Metal Nanocrystals: From Academic Studies to Industrial Applications", Department of Chemistry, University of Virginia, Charlottesville, VA, March 2017.

411 "Putting Nanomaterials to Work for Biomedical and Energy Research", Department of Biomedical Engineering, Johns Hopkins University, Baltimore, MD, March 2017. (BME distinguished seminar)

410 "Novel Plasmonic Nanostructures for Sensing and Imaging", PITTCOM 2017, Chicago, IL, March 2017.

## 2016

409 "Inverse Opal Scaffolds for Tissue Engineering and Regenerative Medicine", Materials Research Society (MRS) Fall Meeting, Boston, MA, December 2016.

408 "Integration of Plasmonic Heating and Phase Transition for Novel Applications", Materials Research Society (MRS) Fall Meeting, Boston, MA, December 2016.

407 "Colloidal Metal Nanocrystals: From Academic Studies to Industrial Applications", Department of Materials Science and Engineering, Johns Hopkins University, Baltimore, MD, November 2016.

406 "Kinetic Control of the Nucleation and Growth of Colloidal Metal Nanocrystals", American Chemical Society (ACS) Fall Meeting, Philadelphia, PA, August 2016.

405 "Controlling the Synthesis and Assembly of Silver Nanocrystals for SERS Application", American Chemical Society (ACS) Fall Meeting, Philadelphia, PA, August 2016.

404 "Gold Nanomaterials at the Bio-Nano Interface", American Chemical Society (ACS) Fall Meeting, Philadelphia, PA, August 2016.

403 "Redesigning the Platinum ORR Catalyst for Fuel Cell Application", American Chemical Society (ACS) Fall Meeting, Philadelphia, PA, August 2016. (Keynote talk)

402 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", KAIST International Workshop on Advanced Materials, Daejon, Korea, August 2016. (Keynote)

401 "Putting Gold Nanomaterials to Work for Cancer Theranostics", Changchun Institute of Applied Chemistry, Changchun, Jilin, China, July 2016.

400 "Anisotropy: The Good, the 'Bad' and .....", Faraday Discussion on Nanoparticles with Morphological and Functional Anisotropy, Royal Society of Chemistry, Glasgow, Scotland, July 2016. (Closing remarks)

399 "Electrospun Nanofibers for Catalytic and Biomedical Applications", the 4<sup>th</sup> International Conference on Electrospinning, Otranto, Italy, June 2016. (Plenary talk)

398 "Symmetry Breaking during Seed-Mediated Growth of Nanocrystals", American Chemical Society (ACS) Spring Meeting, San Diego, CA, March 2016.

397 "Putting Gold Nanomaterials to Work for Cancer Theranostics", Department of Biomedical Engineering, University of Houston, Houston, TX, March 2016.

396 "Putting Gold Nanomaterials to Work for Cancer Theranostics", Integrated Cancer Research Center, Georgia Institute of Technology, Atlanta, GA, January 2016.

395 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Department of Chemistry, University of California, Davis, CA, January 2016.

## 2015

394 "Engineering the Size and Shape of Silver Nanocrystals for Plasmonic Applications", Materials Research Society (MRS) Fall Meeting, Boston, MA, December 2015.

393 "Maximizing the Mass Activity of Pt-Based Catalysts toward Oxygen Reduction", AIChE Annual Meeting, Salt Lake City, UT, November 2015.

392 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Texas Materials Institute, University of Texas, Austin, TX, November 2015.

391 "Toward a Sustainable Use of Precious Metals in Energy Conversion and Industrial Catalysis", the 1st International Symposium on Energy Chemistry and Materials, Shanghai, China, October 2015.

390 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Department of Chemistry, Oregon State University, Corvallis, OR, October 2015.

389 "Shape-controlled Synthesis of Metal Nanocrystals for Plasmonic Applications", Workshop for the Celebration of the International Year of Light at Georgia Tech, Atlanta, GA, September 2015.

388 "Shape-controlled Noble-Metal Nanocrystals for Catalytic Applications", ACS National Fall Meeting, Boston, MA, August 2015.

387 "New Strategies for the Development of Pt-Based Catalysts toward Oxygen Reduction", ACS National Fall Meeting, Boston, MA, August 2015.

386 "Putting Gold Nanomaterials to Work for Biomedical Research", ShanghaiTech Advances in Research (STAR) Symposium, Shanghai, China, June 2015.

385 "Toward a Sustainable Use of Precious Metals in Catalysis", TechConnect World 2015, Washington, DC, June 2015.

384 "Maximizing the Mass Activity of Pt-Based Catalysts toward Oxygen Reduction", ARO-MURI Workshop, Brown University, Providence, RI, June 2015.

383 "Understanding the Nucleation and Growth of Nanocrystals with Controlled Shapes", Workshop on Chemistry and Catalysis, Advanced Photon Source, Argonne National Laboratory, Argonne, IL, May 2015.

382 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Materials Institute (4D LABS), Simon Fraser University, Burnaby, British Columbia, Canada, May 2015.

381 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Department of Physics, Clemson University, Clemson, SC, April 2015.

380 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Yale University, New Haven, CT, April 2015.

379 "Recent Developments in the Controlled Synthesis of Silver Nanostructures", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2015.

378 "Recent Developments in the Synthesis and Utilization of Gold Nanocages", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2015.

377 "Quantitative Analysis of the Molecular/Ionic Species Adsorbed on the Surface of a Nanomaterial", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2015.

376 "Electrospun Nanofibers for Translational Applications", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2015.

375 "Putting Gold Nanomaterials to Work for Biomedical Research", the University of Florida's Biomaterials Day Symposium, Gainesville, FL, March 2015. (Plenary talk)

374 "Putting Nanomaterials to Work for Biomedical Research", Department of Medical Biophysics, University of Toronto, Toronto, Ontario, Canada, March 2015.

373 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Georgia State University, Atlanta, GA, January 2015.

372 "The Environmental Public Health Implications of Nanotechnology", NCEH/ATSDR, Atlanta, GA, January 2015.

#### 2014

371 "Recent Developments in the Use of Gold Nanostructures for Biomedical Applications", Materials Research Society (MRS) Fall Meeting, Boston, MA, December 2014.

370 "Micro- and Nanostructures Based on Phase-change Materials for Biochemical Delivery Applications", Materials Research Society (MRS) Fall Meeting, Boston, MA, December 2014.

369 "Novel Pt-Based Catalysts for the Oxygen Reduction Reaction", AIChE Annual Meeting, Atlanta, GA, November 2014.

368 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Department of Chemical and Biomolecular Engineering, Cornell University, Ithaca, NY, November 2014.

367 "Nanomaterials at Work in Biomedicine and Environmental Protection", GRA Academy of Eminent Scholars meeting, Atlanta, GA, October 2014.

366 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Department of Chemistry, Colorado School of Mines, Golden, CO, October 2014.

365 "Inverse Opal Scaffolds and Their Application in Regenerative Medicine", American Chemical Society (ACS) Fall Meeting, San Francisco, August 2014.

364 "What Controls the Twin Structure of a Seed during the Nucleation Process?", American Chemical Society (ACS) Fall Meeting, San Francisco, August 2014.

363 "Electrospun Nanofibers at Work in Biomedical Research", the 3rd International Conference on Electrospinning, San Francisco, CA, August 2014.

362 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", the 9th US-Sino Nano Workshop, Tianjin, China, July 2014.

361 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", Institute of Advanced Materials, Fudan University, Shanghai, China, July 2014

360 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", BASF Corporation,

Iselin, NJ, May 2014.

359 "Understanding the Role of Aligned Nanofibers in Guiding the Outgrowth of Neurites", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2014.

358 "Directing the Assembly of Atoms on the Surface of Nobel-Metal Nanocrystals", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2014.

357 "Putting Nanomaterials to Work for Biomedical Research", Center for Drug Delivery and Nanomedicine, University of Nebraska Medical Center, Omaha, NE, April 2014.

356 "Putting Gold Nanocages to Work for Biomedical Research", the 5<sup>th</sup> Nanotechnology for Health Care Conference, the Winthrop Rockefeller Institute, Morriston, AR, April 2014.

355 "Putting Nanomaterials to Work for Biomedical Research", National Research Council Canada, Ottawa, ON, Canada, March 2014.

354 "Recent Progress in Controlling the Synthesis of Colloidal Noble-metal Nanocrystals", American Chemical Society (ACS) Spring Meeting, Dallas, TX, April 2014.

353 "Novel Pd-Pt Bimetallic Nanocrystals as the Next-generation Catalysts", American Chemical Society (ACS) Spring Meeting, Dallas, TX, April 2014.

352 "Colloidal Metal Nanocrystals: Moving from Academic Studies to Industrial Applications", School of Chemistry & Biochemistry, Georgia Institute of Technology, Atlanta, GA, February 2014.

351 "Nanocrystals with Controlled Shapes and Their Applications", monthly meeting of the Georgia Section of the American Chemical Society, Atlanta, GA, February 2014.

350 "Colloidal Metal Nanocrystals: Shape Control and Symmetry Breaking", Department of Chemistry, University of Georgia, Athens, GA, February 2014.

## 2013

349 "Electrospun Nanofibers for Biomedical Research and Catalysis", School of Materials Science and Engineering, Nanyang Technological University, Singapore, December 2013.

348 "Colloidal Metal Nanocrystals: The Past, Present, and Future", the 3rd Nano Today Symposium, Singapore, December 2013. (Plenary talk)

347 "Electrospun Nanofibers as a New Platform to Interface with the Biological Systems", Materials Research Society (MRS) Fall Meeting, Boston, MA, December 2013.

346 "New Developments in the Synthesis of Colloidal Noble-metal Nanocrystals", the 2013 Southeastern Regional Meeting (SERMACS 2013), Atlanta, GA, November 2013.

345 "Putting Nanomaterials to Work for Biomedical Research", Department of Biomedical Engineering, Tufts University, Medford, MA, November 2013.

344 "Colloidal Metal Nanocrystals: Shape Control and Symmetry Breaking", Closs Lecture, Department of Chemistry, University of Chicago, Chicago, IL, October 2013.

343 "Colloidal Metal Nanocrystals: The Past, Present, and Future", Sharp Labs of America, Camas, WA, October 2013.

342 "Putting Electrospun Nanofibers to Work for Biomedical Research", Department of Chemistry, Zhejiang University, Hangzhou, Zhejiang, China, July 2013.

341 "Colloidal Metal Nanocrystals", Department of Chemistry, Zhejiang University, Hangzhou, Zhejiang, China, July 2013.

340 "Follow Your Curiosity and Intuition into Different Research Areas", School of Materials Science and Engineering, Wuhan University of Technology, Wuhan, Hubei, China, July 2013.

339 "Colloidal Metal Nanocrystals: The Past, Present, and Future", State Key Laboratory of Advanced Technology for Materials Synthesis and Processing, Wuhan University of Technology, Wuhan, Hubei, China, July 2013.

338 "Colloidal Metal Nanocrystals: The Past, Present, and Future", the 8th US-Sino Nano Workshop, Hangzhou, Zhejiang, China, June 2013. (Tutorial talk)

337 "Recent Developments in the Synthesis of Colloidal Metal Nanocrystals", University of Science and Technology, Hefei, Anhui, China, June 2013.

336 "Shape-controlled Synthesis of Metal Nanocrystals", Department of Materials Science and Engineering, Gwangju Institute of Science and Technology (GIST), Gwangju, Korea, June 2013.

335 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Materials Science and Engineering, Pohang University of Science and Technology (POSTECH), Pohang, Korea, June 2013.

334 "Recent Developments in Colloidal Metal Nanocrystals", WCU-LGD Nanomaterials and Device Symposium, Jeju, Korea, June 2013. (Keynote talk)

333 "Facet-controlled Noble-metal Nanocrystals as the Next-generation Heterogeneous Catalysts", iMAT Workshop on Materials and Interfaces for Catalysis, Environment, and Separations, Georgia Institute of Technology, Atlanta, GA, May 2013.

332 "Putting Nanomaterials to Work for Biomedical Research", Department of Biochemistry & Molecular Pharmacology, UMass Medical School, Worcester, MA, May 2013.

331 "Shape-controlled Synthesis of Metal Nanocrystals", Fujian Institute of Research on the Structure of Matter, the Chinese Academy of Science, Fuzhou, Fujian, China, May 2013.

330 "Putting Nanomaterials to Work for Biomedical Research", Conference on Nanomedicine, the Third Military Medical University, Chongqing, China, May 2013. (Keynote lecture)

329 "Phase-change Materials for Controlled Release and Drug Delivery Applications", 2013 International Advanced Drug Delivery Symposium, Taiwan, May 2013. (Keynote lecture)

328 "Shape-controlled Synthesis of Colloidal Metal Nanocrystals", Department of Chemical Engineering, National Tsing Hua University, Taiwan, May 2013.

327 "Putting Electrospun Nanofibers to Work for Biomedical Research", Society of Plastics Engineers Annual Technical Conference, Cincinnati, OH, April 2013.

326 "Shape-controlled Synthesis of Metal Nanocrystals", Department of Chemistry & Biochemistry, University of Arkansas, Fayetteville, AK, April 2013.

325 "Putting Nanomaterials to Work for Biomedical Research", the 10<sup>th</sup> Annual Conference on the Foundations of Nanoscience (FNANO13), Snowbird, UT, April 2013. (Keynote talk)

324 "Shape Control and Symmetry Breaking in the Synthesis of Colloidal Nanocrystals", ACS Awards Lectures Symposium, Division of Colloid and Surface Chemistry, American Chemical Society (ACS) Spring Meeting, New Orleans, LA, April 2013.

323 "Towards Sustainable Use of Platinum as an Industrial Catalyst", Division of Energy and Fuels, American Chemical Society (ACS) Spring Meeting, New Orleans, LA, April 2013.

322 "Colloidal Metal Nanocrystals: Shape Control, Symmetry Breaking, and Niche Applications", Fred Kavli Distinguished Lectureship on Nanoscience, Materials Research Society (MRS) Spring Meeting, April 2013.

321 "Seeded Growth for the Manufacturing of Metal Nanocrystals", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2013.

320 "Ultrathin Nanowires of Au and Pd: Syntheses and Mechanistic Studies", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2013.

319 "Putting Chemistry to Work for Nano and Biomedical Research", Chair Lectureship, Department of Chemistry, University of Nebraska, Lincoln, NE, March 2013.

318 "Shape-Controlled Synthesis of Metal Nanocrystals", Nanoscience Seminar Series, Department of Physics, Arizona State University, Tempe, AZ, February 2013.

317 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemical and Biomedical Engineering, University of South Florida, Tampa, FL, February 2013.

316 "Putting Chemistry to Work for Nano and Biomedical Research", The Ronald R. Fisher Lectureship in the Biochemical Sciences, Department of Chemistry & Biochemistry, University of South Carolina, Columbia, SC, February 2013.

315 "Putting Electrospun Nanofibers to Work for Biomedical Research", Department of Mechanical Engineering, University of Illinois, Chicago, IL, January 2013.

314 "Shape-Controlled Synthesis of Colloidal Nanocrystals" 2013 Discovery Lecture, Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, TN, January 2013.

313 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, University of Tennessee, Knoxville, TN, January 2013.

## 2012

312 "Simple Chemistry for Complex Nanomaterials", Lecture Series of New England Section of the Electrochemical Society, Hartford, CT, November 2012.

311 "Controlling the Shape of Silver Nanocrystals for Field Enhancement Application", Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2012.

310 "Simple Chemistry for Complex Nanomaterials", Nano@Tech seminar, Institute for Electronics and Nanotechnology, Georgia Institute of Technology, Atlanta, GA, November 2012.

309 "Putting Electrospun Nanofibers to Work for Biomedical Research", the Eastman Chemical Company Lecture, Department of Polymer Science, University of Akron, Akron, OH, October 2012.

308 "Complex Nanomaterials via Simple Chemistry", Triangle MRSEC on Programmable Soft Matter, North Carolina State University, Raleigh, NC, September 2012.

307 "Putting Chemistry to Work for Nano and Biomedical Research", School of Chemical and Biomolecular Engineering, Georgia Institute of Technology, Atlanta, GA, August 2012.

306 "Quantitative Analysis of the Cell Uptake of Gold Nanostructures", Division of Colloids and Surface Sciences, American Chemical Society (ACS) Fall Meeting, Philadelphia, PA, August 2012.

305 "Gold Nanocages: A Multifunctional Platform for Theranostic Applications", Nanotechnology in Medicine Workshop, Washington University Medical School, St. Louis, MO, July 2012.

304 "Putting Nanomaterials to Work for Biomedical Research", SURE Program, Georgia Institute of Technology, Atlanta, GA, July 2012.

303 "Putting Chemistry to Work for Nano and Biomedical Research", Graduate School of Convergence Science and Technology, Seoul National University, Suwon, Korea, June 2012.

302 "Recent Developments in Seed-Mediated Synthesis of Nanocrystals", the 7th US-Sino Nano Workshop, Xiamen, Fujian, China, June 2012.

301 "Gold Nanocages: A Multifunctional Platform for Theranostic Applications", the 5th International Symposium on Bioanalysis, Biomedical Engineering and Nanotechnology (ISBN 2012), Changsha, Hunan, China, June 2012.

300 "Simple Chemistry for Complex Nanomaterials", School of Chemistry, Chemical Engineering, and Materials Science, Soochow University, Suzhou, Jiangsu, China, June 2012.

299 "Electrospun Nanofibers for Regenerative Medicine", the 2nd International Conference on Electrospinning 2012, Jeju Island, Korea, May 2012. (Keynote lecture)

298 "Colloidal Nanocrystals: Past, Present and Future", Department of Energy Science, SungKyunKwan University, Suwon, Korea, May 2012 (distinguished lecture series).

297 "Colloidal Nanocrystals: Past, Present and Future", Materials Research Institute, Penn State University, State College, PA, April 2012. (Distinguished lecture series, materials day symposium)

296 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, University of Texas, Dallas, TX, April 2012.

295 "Simple Chemistry for Complex Nanomaterials", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2012. (Plenary lecture, symposium x)

294 "Electrospun Nanofibers for Regenerative Medicine", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2012.

293 "Smart Capsules for Controlled Release", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2012.

292 "Novel Pd-Pt Bimetallic Nanocrystals for Catalytic Applications", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2012.

291 "Dispersed Nanoparticles for Biomedical Applications", Biomaterials Panel, Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2012.

290 "Nanocages and Nanofibers for Biomedical Research", the 4th Annual Georgia Nanotechnology & Infectious Disease Symposium, Emory University, Atlanta, GA, April 2012.

289 "Putting Nanomaterials to Work for Biomedical Research", NanoScience Technology Center, University of Central Florida, Orlando, FL, March 2012.

288 "Putting Nanomaterials to Work for Biomedical Research", Vanderbilt Institute of Nanoscale Science and Engineering, Vanderbilt University, Nashville, TN, February 2012.

287 "How to Achieve Sustainable Use of a Scarce Metal Like Platinum", Department of Chemical Engineering, Penn State University, State College, PA, February 2012.

## 2011

286 "Controlling the Synthesis and Assembly of Silver Nanocrystals for Plasmonic Applications", Department of Chemistry, University of California, Berkeley, CA, December 2011.

285 "Inverse Opal Scaffolds for Tissue Engineering Applications", Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2011.

284 "Putting Nanomaterials to Work for Biomedical Research", Department of Polymer Science and Engineering, SungKyunKwan University, Suwon, Korea, November 2011.

283 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, Zhejiang University, Hangzhou, Zhejiang, China, October 2011.

282 "Colloidal Nanocrystals: Past, Present, and Future", Department of Materials Science and Engineering, Zhejiang University, Hangzhou, Zhejiang, China, October 2011.

281 "Metal Nanowires for Touch Screen Applications", Flat-Panel Display Standardization Forum, the 11th International Meeting on Information Display (IMID 2011), Ilsan, Korea, October 2011.

280 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, University of Colorado, Boulder, CO, September 2011.

279 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta, GA, September 2011.

278 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, Ohio State University, Columbus, OH, September 2011.

277 "Putting Nanomaterials to Work for Biomedical Research", the 7th Annual NIH Director's Pioneer Award Symposium, Washington DC, September 2011.

276 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, Boston College, MA, September 2011.

275 "Colloidal Nanocrystals: Past, Present, and Future", Center for Nanotechnology, University of Washington, Seattle, WA, September 2011.

274 "Gold Nanocages for Theranostic Applications", Division of Colloid and Surface Chemistry, American Chemical Society (ACS) Fall Meeting, Denver, CO, August 2011.

273 "Novel Silver Nanostructures for Surface-Enhanced Raman Scattering", Division of Physical Chemistry, American Chemical Society (ACS) Fall Meeting, Denver, CO, August 2011.

272 "Seeded Growth of Metal Nanocrystals with Controllable Shapes", Gordon Research Conference on Thin Film and Growth Mechanisms, Biddeford, ME, July 2011.

271 "Putting Chemistry to Work for Nano- and Bio- Research", School of Materials Science and Engineering, Nanyang Technological University, Singapore, July 2011.

270 "Colloidal Nanocrystals of Noble Metals: Past, Present and Future", Nanotechnology and Printed Electronics Symposium 2011, Singapore, July 2011 (plenary lecture).

269 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, Renmin University, Beijing, China, June 2011.

268 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, Tsinghua University, Beijing, China, June 2011.

267 "Controlling the Alignment of Electrospun Nanofibers for Various Applications", WCU-LGD Nanomaterials and Device Symposium, Jeju, Korea, June 2011 (keynote talk).

266 "Gold Nanocages with Tunable Plasmonic Properties for Biomedical Applications", the 5th International Conference on Nanophotonics, Shanghai, China, May 2011. (Plenary lecture)

265 "Shape-Controlled Silver Nanocrystals for Plasmonic Applications", the 5th International Conference on Surface Plasmon Photonics (SPP5), Busan, Korea, May 2011.

264 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, University of Pittsburgh, Pittsburgh, PA, April 2011.

263 "Putting Electrospun Nanofibers to Work for Biomedical Research", Department of Polymer Science and Engineering, University of Massachusetts, Amherst, MA, April 2011.

262 "Seeded Growth for Large-Scale Production of Noble-Metal Nanostructures with Controllable Sizes and Shapes", Division of Polymeric Materials: Science and Engineering, American Chemical Society (ACS) Spring Meeting, Anaheim, CA, March 2011.

261 "Novel Pd-Pt Bimetallic Nanocrystals for Fuel Cell Applications", Division of Colloid and Surface Chemistry, American Chemical Society (ACS) Spring Meeting, Anaheim, CA, March 2011.

260 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, University of Wisconsin, Madison, WI, March 2011.

259 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, PA, March 2011.

258 "Putting Chemistry to Work for Nano and Biomedical Research", Honorary Bent Lecture, Department of Chemical Engineering, University of Missouri-Columbia, MO, March 2011.

257 "Shape-Controlled Synthesis of Noble-Metal Nanocrystals", Department of Chemistry and Department of Physics, Georgetown University, Washington D.C., March 2011.

256 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Biomedical Engineering and Department of Chemistry and Biochemistry, Georgia Institute of Technology, GA, February 2011.

255 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, Columbia University, New York, NY, February 2011.

## 2010

254 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, Brown University, Providence, RI, December 2010.

253 "Gold Nanocages: A Multifunctional Platform for Nanomedicine", Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2010.

252 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Materials Science and Engineering and Department of Bioengineering, Iowa State University, Ames, IA, November 2010.

251 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemical Engineering, University of Florida, Gainesville, FL, November 2010.

250 "Putting Chemistry to Work for Nanocrystal Synthesis", Department of Chemistry, Indiana University, Bloomington, IN, November 2010

249 "Putting Electrospun Nanofibers to Work for Biomedical Research", 2010 International Symposium on Nature-Inspired Technology, Seoul National University, Seoul, Korea, October 2010

248 "Putting Chemistry to Work for Nano and Biomedical Research", National Meeting of Korean Chemical Society, Daegu, Korea, October 2010

247 "Following Your Curiosity, Intuition, and Good Luck into Different Research Areas", Pioneer-NanoSeoul Forum, Seoul, Korea, October 2010

246 "Putting Chemistry to Work for Nanocrystal Synthesis", Department of Chemistry, Rice University, Houston, TX, October 2010

245 "Gold Nanocages: A New Platform for Biomedical Applications", Department of Chemical and Biomolecular Engineering, Rice University, Houston, TX, October 2010.

244 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, Texas Christian University, Ft. Worth, TX, October 2010.

243 "Putting Nanocrystal Synthesis under Control", Center for Nano and Molecular Science and Technology, University of Texas, Austin, TX, September 2010.

242 "Design and Synthesis of Bimetallic Nanocrystals for Catalytic Applications", Catalysis Research Center, Hokkaido University, Sapporo, Japan, September 2010.

241 "Nanocrystal Synthesis: Past, Present and Future", International Conference on Nanoscopic Colloid and Surface Science, Chiba, Japan, September 2010 (plenary lecture).

240 "Colloidal Nanocrystals: Past, Present and Future", Department of Chemistry, Fudan University, Shanghai, China, September 2010.

239 "Putting Chemistry to Work for Nano and Biomedical Research", Institute of Advanced Materials and Nanomedicine, Tongji University, Shanghai, China, September 2010.

238 "Novel Silver Nanostructures for SERS Applications", the 18<sup>th</sup> International Vacuum Congress, Beijing, China, September 2010.

237 "Gold Nanocages: A New Platform for Cancer Diagnosis and Treatment", Gordon Research Conference on Lasers in Medicine and Biology, Holderness, NH, July 2010.

236 "Gold Nanocages for Controlled Release with Near-Infrared Light", the 37th Annual Meeting & Exposition of the Controlled Release Society (CRS), Portland, OR, July 2010.

235 "Etching and Growth: An Intertwined Pathway to Nanocrystals with Different Shapes", Gordon Research Conference on Noble Metal Nanoparticles, South Hadley, MA, June 2010.

234 "Nanocrystal Synthesis: Past, Present and Future", International Symposium on Nucleation and Growth of

Crystals: Structures, Functions and Applications, Shandong University, Jinan, China, June 2010.

233 "Nanocrystal Synthesis: Past, Present and Future", the 125<sup>th</sup> Anniversary Symposium, Yonsei University, Seoul, Korea, June 2010.

232 "Nanomaterials, Synthesis, Manufacturing, and Applications", Samsung Advanced Institute of Technology (SAIT), Seoul, Korea, June 2010.

231 "Seed-Mediated Synthesis for Nanocrystal Manufacturing", US-Sino Nano Workshop, Suzhou, China, June 2010.

230 "Shape-Controlled Synthesis of Metal Nanocrystals", Department of Energy Engineering, Hanyang University, Seoul, Korea, June 2010.

229 "Shape-Controlled Synthesis of Metal Nanocrystals", Department of Chemistry and Nano Science, Ehwa Womans University, Seoul, Korea, May 2010.

228 "Metal Nanocrystals: From Synthesis to Manufacturing and Applications", Center for Nanoscale Science and Technology (CNST) Annual Nanotechnology Workshop, University of Illinois at Urbana Champaign, May 2010.

227 "Putting Nanomaterials to Work for Biomedical Research", Department of Chemistry, University of Maryland at Baltimore County, MD, May 2010.

226 "Putting Nanomaterials to Work for Biomedical Research", Department of Biomedical Engineering, Purdue University, West Lafayette, IN, May 2010.

225 "Engineering the Plasmonic Properties of Nanostructures for Various Applications", Applied Physics Lecture, Washington University, St. Louis, MO, April 2010.

224 "Putting Nanomaterials to Work for Biomedical Research", Department of Pharmaceutical Sciences, University of Michigan, Ann Arbor, MI, April 2010.

223 "Nanochemistry: Where Are We Now?", California NanoSystems Institute (CNSI), University of California, Los Angeles, CA, April 2010.

222 "Gold Nanocages: A Multifunctional Platform for Biomedical Applications", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2010.

221 "Controlling the Nucleation and Growth of Bimetallic Nanostructures", Division of Polymeric Materials: Science and Engineering, American Chemical Society (ACS) Spring Meeting, San Francisco, CA, March 2010.

220 "Putting Nanomaterials to Work for Biomedical Research", Department of Chemistry, Brandeis University, Waltham, MA, March 2010.

219 "Putting Nanomaterials to Work for Biomedical Research", the 2010 Annual Conference of Institute of Biological Engineering (IBE), Cambridge, MA, March 2010.

218 "Engineering the Optical Properties of Gold Nanocages for Biomedical Applications", IEEE INEC 2010, Hong Kong, January 2010.

## 2009

217 "Gold Nanocages: A New Platform for Cancer Diagnosis and Treatment", Marilyn Fixman Clinical Cancer Conference, Siteman Cancer Center, Washington University Medical School, St. Louis, December 2009.

216 "Metallic Nanowires: Synthesis and Applications", the Third International Conference on One-Dimensional Nanomaterials, Atlanta, GA, December 2009.

215 "Nanowires for Electronic and Photonic Applications", Samsung Advanced Institute of Technology (SAIT), Seoul, Korea, December 2009.

214 "Shape-Controlled Synthesis of Metal Nanocrystals", LG Chem, Daejeon, Korea, December 2009.

213 "Putting Electrospun Nanofibers to Work for Biomedical Research", Korea Research Institute of Chemical Technology (KRICT), Daejeon, Korea, December 2009.

212 "Shape-Controlled Synthesis of Metal Nanocrystals", Korea Basic Science Institute (KBSI), Daejeon, Korea, December 2009.

211 "Putting Nanomaterials to Work for Biomedical Research", Department of Chemistry, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea, December 2009.

210 "Electrospun Nanofibers: A New Platform for Neural Tissue Engineering", International Workshop on Emerging Materials & Active Polymer Patterning, Gyeongju, Korea 2009.

209 "Putting Nanostructures to Work for Biomedical Research", Department of Chemistry, Yonsei University, Seoul, Korea, November 2009.

208 "Gold Nanocages: A New Platform for Biomedical Applications", Asia Communications and Photonics Conference and Exhibit, Shanghai, China, November 2009.

207 "Maneuvering the Plasmonic Properties of Silver Nanocrystals", Asia Communications and Photonics Conference and Exhibit, Shanghai, China, November 2009.

206 "Shape-Controlled Synthesis of Metal Nanostructures", School of Chemical and Bimolecular Engineering, Southeast University, Nanjing, China, November 2009.

205 "Controlling the Synthesis and Assembly of Nanocrystals", The 2nd Asian Conference on Coordination Chemistry, Nanjing, China, November 2009.

204 "Shape-Controlled Synthesis of Metal Nanostructures", Department of Materials Science and Engineering, Yonsei University, Seoul, Korea, October 2009.

203 "Putting Nanomaterials to Work for Biomedical Research", Biophysics Evening, Department of Biochemistry and Molecular Biophysics, Washington University School of Medicine, MO, October 2009.

202 "Gold Nanocages: A New Platform for Biomedical Applications", the '09 Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Conference, Louisville, KY, October 2009.

201 "Nanomaterials at Work in Various Applications", the First Symposium on Nanotechnology, National Nanotechnology Infrastructure Network (NNIN), Washington University in St. Louis, MO, September 2009.

200 "Putting Nanomaterials to Work for Biomedical Research", Department of Chemical and Biomolecular Engineering, University of Illinois at Urbana Champaign, IL, September 2009.

199 "Dimers of Silver Nanospheres or Nanocubes for SERS Applications", Division of Colloidal and Surface Science, American Chemical Society (ACS) Fall Meeting, Washington D.C., August 2009.

198 "Gold Nanocages: A New Platform for Biomedical Applications", Division of Physical Chemistry, American Chemical Society (ACS) Fall Meeting, Washington D.C., August 2009.

197 "Hierarchically Porous Scaffolds for Tissue Engineering Applications", Division of Polymeric Materials Science and Engineering, American Chemical Society (ACS) Fall Meeting, Washington D.C., August 2009.

196 "Nanochemistry: Where Are We Now?", National Center for Nano Science and Nanotechnology, Beijing, China, July 2009.

195 "Controlling the Assembly of Atoms into Nanocrystals with Different Shapes", Dalian Institute of Chemical Physics, Dalian, China, July 2009.

194 "Design and Synthesis of Novel Catalysts for Fuel Cell Applications", US-Sino Nano Workshop, Hefei, China, July 2009.

193 "Bridging the Gap between Atoms and Nanocrystals", College of Engineering, National Tsing Hua University, Taiwan, May 2009.

192 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemical Engineering, National Tsing Hua University, Taiwan, May 2009.

191 "Putting Electrospun Nanofibers to Work for Biomedical Research", 2009 International Advanced Drug Delivery Symposium, Taiwan, May 2009 (keynote lecture).

190 "Putting Nanomaterials to Work for Biomedical Research", The 2nd International Symposium on Advanced Particles (ISAP2009), Yokohama, Japan, April 2009 (plenary lecture).

189 "Nanomaterials: A New Platform for Molecular Imaging and Therapy", Washington University Imaging Sciences Pathway Program, St. Louis, MO, April 2009.

188 "Synthesis and Self-Assembly of Silver Nanocrystals", Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2009.

187 "Some New Developments in the Synthesis of Gold Nanostructures", Division of Colloidal and Surface Science, American Chemical Society (ACS) Spring Meeting, Salt Lake City, UT, March 2009.

186 "Shape-Controlled Synthesis of Palladium Nanocrystals in Aqueous Solutions", Division of Industrial and Engineering Chemistry, American Chemical Society (ACS) Spring Meeting, Salt Lake City, UT, March 2009.

185 "Controlling the Synthesis and Assembly of Nanoscale Building Blocks", Division of Physical Chemistry, American Chemical Society (ACS) Spring Meeting, Salt Lake City, UT, March 2009.

184 "Electrospun Nanofibers for Neural Tissue Engineering", American Physical Society (APS) Spring Meeting, Pittsburgh, PA, March 2009.

183 "Electrospun Nanofibers for Repairing the Body", Department of Orthopedic Surgery, Washington University, St. Louis, MO, January 2009.

**2008**

182 "Putting Electrospun Nanofibers to Work for Biomedical Research", Department of Chemistry, Hong Kong University of Science and Technology, Hong Kong, December 2008.

181 "Nanomaterial Synthesis in the Context of Energy, Environment, and Sustainability", I-CARES, Washington University, St. Louis, MO, November 2008.

180 "Putting Nanomaterials to Work for Biomedical Research", Department of Biomedical Engineering, Johns Hopkins University, Baltimore, MD, November 2008.

179 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, Duke University, Durham, NC, October 2008.

178 "Controlling the Assembly of Atoms into Nanocrystals with Different Shapes", Department of Chemistry, University of North Carolina, Chapel Hill, NC, October 2008.

177 "Nanochemistry: Where Are We Now?", Symposium in Honoring Prof. Ozin on the Occasion of his 65th Birthday, Department of Chemistry, University of Toronto, Toronto, Canada, October 2008.

176 "Putting Electrospun Nanofibers to Work for Biomedical Research", Fiber Society's Fall Conference, Montreal, Canada, October 2008.

175 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Biomedical Engineering, Washington University in St. Louis, September 2008.

174 "Controlling the Evolution of Atoms to Nanocrystals with Different Shapes", Hefei National Laboratory for Physical Science at the Microscale, Hefei, Anhui, China, July 2008.

173 "Tailoring Surface Plasmonic Properties of Metal Nanostructures", The Key Laboratory of Quantum Information, Chinese Academy of Sciences, Hefei, Anhui, July 2008.

172 "Shape-Controlled Synthesis of Nanocrystals: The Case of Palladium", the 7th International Symposium for Chinese Inorganic Chemists, Shanghai, July 2008.

171 "Engineering the Optical Properties of Gold Nanostructures for Biomedical Applications", the American Chemical Society (ACS) 82nd Colloidal & Surface Science Symposium, Raleigh, NC, June 2008.

170 "Controlling the Shapes of Colloidal Nanocrystals", the American Chemical Society (ACS) 82nd Colloidal & Surface Science Symposium, Raleigh, NC, June 2008.

169 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, University of Toronto, Toronto, Canada, April 2008.

168 "Shape-Controlled Synthesis of Nanocrystals: The Case of Palladium", the American Chemical Society (ACS) National Meeting, New Orleans, LA, April 2008.

167 "Putting Chemistry to Work for Nanomaterial Synthesis", the Materials Research Society (MRS) Spring Meeting, San Francisco, CA, March 2008.

166 "Shape-Controlled Synthesis of Nanocrystals", the Materials Research Society (MRS) Spring Meeting, San Francisco, CA, March 2008.

165 "Putting Nanostructures to Work for Biomedical Research", Nanoscale Science and Engineering, University of California, Berkeley, CA, March 2008.

164 "Gold Nanocages: A New Class of Nanostructures for Photothermal and Photoacoustic Applications", Gordon Research Conference on "Photoacoustic and Photothermal Phenomena: Photoinduced Processes and Applications", Ventura, CA, February 2008.

163 "Putting Chemistry to Work for Nano and Biomedical Research", Department of Chemistry, University of California, Irvine, CA, February 2008.

162 "Shape-Controlled Synthesis of Nanocrystals", Center for Nanoscience, University of Missouri at St. Louis, MO, January 2008.

**2007**

161 "Putting Nanostructures to Work for Biomedical Research", Nanyang Technological University, Singapore, December 2007.

160 "Shape-Controlled Synthesis of Nanocrystals", Singapore International Chemical Conference 5 (SICC-5), Singapore, December 2007 (plenary talk).

159 "Putting Nanostructures to Work for Biomedical Research", International Institute for Nanotechnology, Northwestern University, Chicago, IL, December 2007.

158 "Putting Nanostructures to Work for Biomedical Research", International Institute for Nanotechnology, University of Rochester, Rochester, NY, December 2007.

157 "Self-Assembly Approaches to Three-Dimensionally Structured Nanomaterials", the Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2007.

156 "Shape-Controlled Synthesis of Nanocrystals", Department of Chemistry, Columbia University, New York, NY, November 2007.

155 "Shape-Controlled Synthesis of Nanocrystals", Center for Nanotechnology, University of Texas, Dallas, TX, September 2007.

154 "Putting Nanostructures to Work for Biomedical Research", the Annual NIH Director's Pioneer Award Symposium, Bethesda, MD, September 2007.

153 "Shape-Controlled Synthesis of Nanocrystals: Simple Chemistry Meets Complex Physics", Department of Chemistry, Tsinghua University, Beijing, China, September 2007.

152 "Shape-Controlled Synthesis of Nanocrystals", Department of Chemistry, Nankai University, Tianjin, China, September 2007.

151 "Nanostructured Materials Enabled by Electrospinning", School of Engineering, Tianjin University, Tianjin, China, September 2007.

150 "Tailoring the Optical Properties of Gold Nanocages for Biomedical Applications", the Materials Today Asia Meeting, Beijing, China, September 2007.

149 "Tailoring the Optical Properties of Gold Nanocages for Biomedical Applications", International Conference on Molecular Photonics, San Juan Islands, WA, August 2007.

148 "Some New Developments in the Fabrication of Macroporous Materials", the American Chemical Society (ACS) Fall National Meeting, Boston, MA, August 2007.

147 "Tailoring the Optical Properties of Gold Nanocages for Biomedical Applications", the American Chemical Society (ACS) Fall National Meeting, Boston, MA, August 2007.

146 "Nanostructured Materials Enabled by Electrospinning", School of Engineering, National University of Singapore, Singapore, July 2007.

145 Inorganic Chemistry Seminar, Department of Chemistry, Washington University, St. Louis, MO, April 2007.

144 Annual Distinguished Lecture Series, Division of Polymers, the National Institute of Standards and Technology, Gaithersburg, MD, April 2007.

143 Physical Chemistry Seminar, Department of Chemistry, University of California, Riverside, CA, April 2007.

142 "Putting Nanostructures to Work for Biomedical Research", Nanobiotechnology Seminar Series, Stanford University, Stanford, CA, April 2007.

141 "Tailoring the Optical Properties of Gold Nanocages for Biomedical Applications", the Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2007.

140 Seminar, Department of Materials Science and Engineering, University of Illinois, Urbana, IL, April 2007.

139 "Putting Nanostructures to Work for Biomedical Research", Center for Materials Innovation, Washington University, St. Louis, MO, March 2007.

138 "Phase Separation: An Effective Approach to Nanostructured Materials", the American Chemical Society (ACS) Spring National Meeting, Chicago, IL, March 2007.

137 "Colloidal Molecules?", the American Chemical Society (ACS) Spring National Meeting, Chicago, IL, March 2007.

136 Seminar, Department of Chemical and Biomolecular Engineering, University of Wisconsin, Madison, WI, March 2007.

135 Inorganic Chemistry Seminar, Department of Chemistry and Biochemistry, University of California, Los Angeles, CA, March 2007.

134 "Shape-Controlled Synthesis of Nanocrystals: Simple Chemistry Meets Complex Physics", Plenary Lecture, Undergraduate Nanotechnology Conference (UNC), Toronto, Canada, March 2007.

133 "Putting Nanostructures to Work for Biomedical Research", School of Life Sciences, University of Science and Technology of China (USTC), Hefei, China, January 2007.

132 "Nanostructured Materials Enabled by Electrospinning", Department of Macromolecular Science, Fudan University, Shanghai, China, January 2007.

131 "Some New Developments in Colloidal Synthesis and Assembly", Institute of Micro- and Nanotechnology, Jiaotong University, Shanghai, December 2006.

130 "Nanostructured Materials Enabled by Electrospinning", the Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2006.

129 Physical Chemistry Seminar, Department of Chemistry, Princeton University, Princeton, NJ, November 2006.

128 "Nanostructured Materials by Electrospinning", Conference on Chemical Nanotechnology, Frankfurt, Germany, October 2006.

127 Institute Nanotechnology Seminar Series, Stevens Institute of Technology, Hoboken, NJ, September 2006.

126 Centennial Lecture, Department of Engineering Mechanics, University of Nebraska, Lincoln, NE, September 2006.

125 Chemistry Colloquium, Department of Chemistry, University of Nebraska, Lincoln, NE, September 2006.

124 "Shape-Controlled Synthesis of Metal Nanostructures", the American Chemical Society (ACS) Northwest Regional Meeting (NORM), Reno, NV, June 2006.

123 "Metal Nanostructures with Controllable Shapes", Cambrios Inc., Mountain View, CA, June 2006.

122 Chemistry Colloquium, Department of Chemistry, Nanyang Technological University, Singapore, June 2006.

121 "Gold Nanocages: Engineering the Optical Properties for Biomedical Applications", Institute of Bioengineering and Nanotechnology, Singapore, June 2006.

120 "Shape-Controlled Synthesis of Metal Nanostructures", School of Materials Science and Engineering, Shanghai Jiaotong University, Shanghai, China, June 2006.

119 "Nanostructured Materials by Electrospinning", PPG Research Center, Pittsburgh, May 2006.

118 "Chemical Approaches to Nanomanufacturing", the Materials Research Society (MRS) Spring Meeting, San Francisco, CA, April 2006.

117 Physical Chemistry Seminar, Department of Chemistry, University of Texas A&M, College Station, TX, March 2006.

116 "Tailoring the Plasmonic Properties of Metal Nanostructures for Biomedical Applications", the American Physical Society (APS) Spring Meeting, Baltimore, MD, March 2006.

115 Spring Colloquium, Department of Chemistry, University of Syracuse, Syracuse, NY, March 2006.

114 Chemistry Colloquium, Department of Chemistry, Pennsylvania State University, University Park, PA, February 2006.

113 Inorganic Chemistry Seminar, Department of Chemistry, University of Pennsylvania, Philadelphia, PA, February 2006.

112 Materials Science Seminar, Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN, February 2006.

111 "Ceramic Processing Science: Perspectives from a Chemist", the 9th International Ceramic Processing Science Symposium, Plenary Lecture, Coral Springs, FL, January 2006.

110 "Exploration of New Research Areas", Department of Chemistry, Fudan University, Shanghai, China, January 2006.

## 2005

109 "Shape-Controlled Synthesis of Metal Nanostructures", the 5th PacificChem Meeting, Honolulu, HI, December 2005.

108 "The Roles of Capping Agents in Shape-Controlled Synthesis of Metal Nanostructures", the Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2005.

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