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Education:

- 2007 – 2008 Postdoctoral Research Associate, Department of Chemistry, University of Washington Seattle
Advisors: Professors Younan Xia and Xingde Li
- 2002 – 2006 Ph.D., Department of Chemistry, University of Illinois at Urbana – Champaign
Awarded 2007 Thesis: *Porous Materials Prepared by Ultrasonic Spray Pyrolysis*
Advisor: Professor Kenneth S. Suslick
- 1998 – 2002 B. A., Department of Chemistry, Washington University in St. Louis (Summa cum Laude)
Advisors: Professors William E. Buhro and Dewey Holten

Appointments:

- S. 2015 – James H. Rudy Professor, Indiana University – Bloomington
Appointed by the Provost of Indiana University
- S. 2014 – Associate Professor of Chemistry, Indiana University – Bloomington
Recommended to Professor Rank by University (S. 2017)
- F. 2008 – S. 2014 Assistant Professor of Chemistry, Indiana University – Bloomington
- S. 2007 – S. 2008 Post-doctoral Research Fellow, University of Washington – Seattle (Y. Xia, X. Li)
- F. 2002 – F. 2006 Research and Teaching Assistant, University of Illinois at Urbana – Champaign (K. S. Suslick)
- S. 2005 Research Assistant, Argonne National Laboratory (C. Marshall)
- F. 2000 – S. 2002 Research Assistant, Washington University in St. Louis (W. E. Buhro)
- S. 1999 – S. 2000 Research Assistant, Washington University in St. Louis (D. Holten)

Honors and Awards:

- 2017 Fellow, John Simon Guggenheim Memorial Foundation
- 2017-8 Fulbright U.S. Scholar, Host Institution: CIC biomaGUNE, San Sebastian, Spain
- 2016 Magomedov-Shcherbinina Memorial Prize, University of Rochester, Department of Chemistry
- 2015 Leo Hendrik Baekeland Award, North Jersey Section of the American Chemical Society
- 2015 James H. Rudy Professorship, Indiana University – Bloomington
Appointed by the Provost of Indiana University
- 2015 Scialog Collaborative Innovation Award, Research Corporation for Science Advancement
- 2014 Camille Dreyfus Teacher-Scholar Award
- 2014 National ACS Award in Pure Chemistry sponsored by Alpha Chi Sigma Fraternity and Academic Foundation
- 2013 Dean's Fellow, Arts & Sciences, Indiana University – Bloomington
- 2013 DOE Early Career Award, Basic Energy Sciences
- 2013 Alfred P. Sloan Research Fellow
- 2013 Indiana University's Provost Travel Award for Women in Science
- 2012 ACS Global Research Experiences, Exchanges and Training (GREET) Program Awardee
- 2012 IMI-SEE Travel Award to attend IUMRS ICYRAM, Singapore
- 2012 Cottrell Scholar Award – Research Corporation for Science Advancement
- 2010 NSF CAREER Award, Division of Materials Research
- 2006 T. S. Piper Thesis Research Award, University of Illinois at Urbana – Champaign
- 2002 Sowden Award for Best Undergraduate Research, Washington University in St. Louis
- 2000 Semiconductor Research Corp. Undergraduate Grant Recipient

Current and Previous Research Funding:

- 2016-2017 Advanced Photon Source, Argonne National Laboratory, “Probing the Size-Dependent Ordering Behavior of PdCu Alloy Nanoparticles by In situ Total-Scattering”
Beam time allotted.
- 2016-2017 Advanced Photon Source, Argonne National Laboratory, “Probing the Local Structure of Sn-doped GZNO by X-ray Absorption Spectroscopy towards Improved Solar-to-fuel Photocatalysts”
Beam time allotted.
- 2016-2017 Center for Nanophase Materials Science, Oak Ridge National Laboratory, “In situ (S)TEM Monitoring of Interface-Controlled Disorder-Order Transformation in CuPd Nanocatalysts”
Microscope time allotted.
- 2016-2019 NSF-CHE-MSN, “Symmetry Making and Breaking in the Synthesis and Assembly of Stellated and Bimetallic Nanocrystals”
- 2016-2019 NSF-DMR-SSMC, “Spray Synthesis of Shape-Defined Nanocrystals”
- 2015-2017 NIH-R21-GM, “New Chromatographic Technologies for Resolving Carbohydrate Isomers”
Co-Investigator (PI: M. Novotny, Indiana University)
- 2015-2017 Research Corporation for Science Advancement, Scialog Collaborative Innovation Award, “Light-mediated Strain as an Adaptive Tool toward Efficient Catalysis”
Co-PI: Vanessa Huxter (University of Arizona)
- 2014-2015 Center for Nanophase Materials Science, Oak Ridge National Laboratory, “Investigation of Shape-Controlled Nanocrystal Formation by Seeded Methods using In Situ Transmission Electron Microscopy”
Microscope time allotted.
- 2014-2019 Camille Dreyfus Teacher-Scholar Award, “Shaping the Synthesis of Inorganic Solids”
- 2013-2016 NSF-CHE-MSN, “Seed-mediated Co-reduction: A Versatile Route to Architecturally Controlled Bimetallic Nanostructures”
- 2013-2018 DOE-BES Early Career Award, “Decoupling the Electronic and Geometric Parameters of Metal Nanocatalysts”
- 2013-2015 Alfred P. Sloan Foundation Research Fellowship
- 2013 Indiana University – Bloomington, New Directions Faculty Research Support Program, “Synthesis and Optical Studies of Self-assembling Stellated Polyhedra”
Co-PI: Bogdan Dragnea
- 2013 SLAC National Accelerator Laboratory
Beam time allotted
- 2013 Advanced Photon Source, Argonne National Laboratory, “*In-situ* Synchrotron Small Angle X-ray Scattering Studies of Aggregation-based Growth of Metal Nanodendrites”
Beam time allotted
- July-Nov. 2012 Indiana CTSI – Research Invention and Scientific Commercialization (RISC) Program, “Commercial Scale Synthesis of High Surface Area Macroporous Silica for Bioanalytical Chromatography”
- 2012 – 2015 NIH R01-GM, “Sensitive Methods for Glycoconjugate Analysis” 1-year no cost extension
Co-Investigator (PI: Milos Novotny-Chemistry, Indiana University)
- 2012 – 2014 Research Corporation for Science Advancement, Cottrell Scholar Program, “New Synthetic Strategies to Multi-Metal Nanocrystals with Controlled Compositions and Structures” 1- year no cost extension
- 2011 – 2014 NSF DMR-MRI, “Acquisition of an X-ray Photoelectron Spectrometer for Research and Education” 1-year no cost extension
- 2011 – 2013 NSF CHEM-CRIF, “Acquisition and Cyber-enhancement of a Modern X-ray Powder Diffractometer to Support Local and Remote Researchers and Educators” 1-year no cost extension
Co-PI (PI: David Giedroc-Chemistry, Indiana University)
- 2010 – 2015 NSF-DMR-SSMC CAREER Award, “Advanced Aerosol Synthesis of Metal Oxides for Photocatalytic Applications” 1- year no cost extension
- 2009 – 2011 ACS-PRF, “Electrospray Synthesis of Composite Photocatalysts with Controlled Architectures” Total:
- 2008 – 2011 Indiana University, Departmental Start-up Funds

Funding for Education/Outreach/Service Activities:

- 2015 – 2018 NSF, “REU Site: Nanoscale Assembly of Molecules and Materials at Indiana University”
Co-PI (PI: Stephen Jacobson, Chemistry, Indiana University)

- 2012 – 2015 Research Corporation for Science Advancement, Cottrell Scholar Collaboration, “Mobilizing the Forgotten Army: Equipping TA’s with Inquiry-Based Teaching Methods”
Senior Personnel (PIs: Jordan Gerton-Physics, University of Utah; Michael Schatz-Physics, Georgia Tech)
- 2011 – 2012 Office for Women’s Affairs, Indiana University “Women in Chemistry Programming” (co-organizers Dr. Maren Pink and Dr. Erin Carlson)
- 2011 American Chemical Society, Committee on Local Section Activities, Innovative Projects Grant Program
“Service Learning in Chemistry: Clear Creek Watershed & the B-line Trail” (organizer Dr. Kate Reck; provided sponsorship as Chair of ACS Local Section)
- 2010 – 2011 Office for Women’s Affairs, Indiana University “Women in Chemistry Programming” (co-organizers Dr. Maren Pink and Dr. Erin Carlson)
- 2010 American Chemical Society, Committee on Local Section Activities, Innovative Projects Grant Program
“Chemistry of Everyday Life Seminar Series” (co-organizer Dr. Erin Carlson)
- 2009 – 2010 Office for Women’s Affairs, Indiana University “Women in Chemistry Programming” (co-organizers Dr. Maren Pink and Dr. Erin Carlson)

Federal Funding to Students in the Skrabalak Group:

- 2017 – 2020 NSF Graduate Student Fellowship, Sandra Atehortua
- 2016 – 2017 Navy Innovative Science and Engineering Grant, Alison Smith (PhD)
- 2016 – 2019 NSF Graduate Student Fellowship, Nick Daanen
- 2016 DOE Office of Science Graduate Student Research Award, Dennis Chen
- 2012 – 2016 NSWC Crane PhD Fellowship, Alison Smith

Publications: * indicates corresponding author; indicates undergraduate co-authors

(72) Santana, J. S.; Koczur, K. M.; Skrabalak, S. E.* “Synthesis of Core@Shell Nanostructures in a Continuous Flow Droplet Reactor: Controlling Structure through Relative Flow Rates” *Langmuir*, **2017**, in revisions.

(71) Smith, A. F.; Skrabalak, S. E.* “Metal Nanomaterials for Optical Anti-counterfeit Labels” *Journal of Materials Chemistry C* (invited article), **2017**, *5*, 3207. DOI: 10.1039/C7TC00080D.

(70) Fu, J.; Daanen, N. N., Rugen, E. E.; Chen, D. P.; Skrabalak, S. E.* “Simple Setup for Ultrasonic Spray Synthesis of Nanostructured Materials” *Chemistry of Materials* (invited manuscript – Methods and Protocols Special Issue), **2017**, *29*, 62-68. DOI: 10.1021/acs.chemmater.6b02660.

(69) Ataee-Esfahani, H.; Skrabalak, S. E.* “Manipulating the Architecture of Pd@Pt Nanostructures through Metal-Selective Capping Agent Interactions” *Chemical Communications*, **2016**, *52*, 10783-10786. DOI: 10.1039/c6cc04849h.

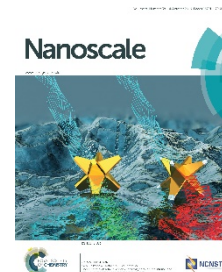
(68) Khabiboulakh, K.; Lozova, N.; Wang, L.; Krishna, K. S.; Kirmani, A. R.; Li, R.; Abdul Halim, L. G.; Anjum, D.; Amassian, A.; Mei, W.-N.; Skrabalak, S. E.; Kumar, C. S. S. R.; Lozovyj, Y* “Electronic Structure of Au₂₅ Clusters: Between Discrete and Continuous” *Nanoscale*, **2016**, *8*, 14711-14715. DOI: 10.1039/C6NR02374F.

(67) Smith, A. F.; Harvey, S. M.; Skrabalak, S. E.;* Weiner, R. G.* “Engineering High Refractive Index Sensitivity through the Internal and External Composition of Bimetallic Nanocrystals” *Nanoscale*, **2016**, *8*, 16841-16845. DOI: 10.1039/C6NR04085C.

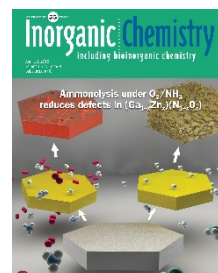
(66) Weiner, R. G.; Skrabalak, S. E.* “Seed-Mediated Co-Reduction as a Route to Shape-Controlled Trimetallic Nanocrystals” *Chemistry of Materials*, **2016**, *28*, 4139-4142. DOI: 10.1021/acs.chemmater.6b01715.

(65) Wang, C.; Chen, D. P., Sang, X.; Unocic, R.; Skrabalak, S. E.* “Size-Dependent Disorder-Order Transformation in the Synthesis of Monodisperse Intermetallic PdCu Nanocatalysts” *ACS Nano*, **2016**, *10*, 6345 – 6353. DOI: 10.1021/acsnano.6b02669.

(64) Fu, J.; Skrabalak, S. E.* “Aerosol Synthesis of Shape-Controlled Template Particles: a Route to Ta₃N₅ Nanoplates and Octahedra as Photocatalysts” *Journal of Materials Chemistry A*, **2016**, *4*, 8451 – 8457. DOI: 10.1039/c6ta01889k.

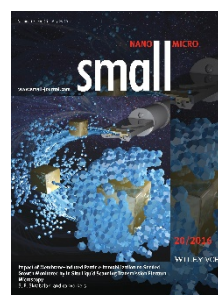


(63) Chen, D. P.; Skrabalak, S. E.* “Synthesis of $(\text{Ga}_{1-x}\text{Zn}_x)(\text{N}_{1-x}\text{O}_x)$ with Enhanced Visible-Light Absorption and Reduced Defects by Suppressing Zn Volatilization” *Inorganic Chemistry*, **2016**, *55*, 3811-3828. DOI: 10.1021/acs.inorgchem.5b02866.



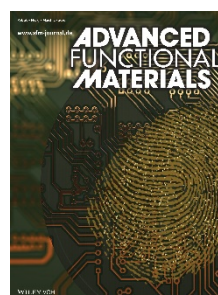
(62) Smith, A. F.; Weiner, R. G.; Skrabalak, S. E.* “Symmetry-Dependent Optical Properties of Stellated Metal Nanocrystals” *Journal of Physical Chemistry C* (invited manuscript – Richard P. Van Duyne Festschrift), **2016**, *120*, 20563-20571. DOI: 10.1021/acs.jpcc.5b12280.

(61) Weiner, R. G.; Chen, D. P.; Unocic, R. R.; Skrabalak, S. E.* “Impact of Membrane-induced Particle Immobilization on Seeded Growth Monitored by In Situ Liquid Scanning Transmission Electron Microscopy” *Small*, **2016**, *12*, 2701-2706. DOI: 10.1002/smll.201502974.



(60) Laskar, M.; Skrabalak, S. E.* “A Balancing Act: Manipulating Reactivity of Shape-Controlled Metal Nanocatalysts through Bimetallic Architecture” *Journal of Materials Chemistry A* (invited manuscript – Emerging Investigator Issue), **2016**, *4*, 6911-6918. DOI: 10.1039/C5TA09368F.

(59) Smith, A. F.; Patton, P.; Skrabalak, S. E.* “Plasmonic Nanoparticles as a Physically Unclonable Function for Responsive Anti-counterfeit Nanofingerprints” *Advanced Functional Materials*, **2016**, *26*, 1315-1321. DOI: 10.1002/adfm.201503989.



(58) Ringe, E.*; DeSantis, C. J.; Collins, S. M.; Skrabalak, S. E.; Midgley, P. A. “Resonances of Nanoparticles with Poor Plasmonic Metal Tips” *Scientific Reports (Nature)*, **2015**, *5*, 17431. DOI: 10.1038/srep17431.

- Featured in **Phys.Org** “Tiny octopods catalyze bright ideas: Study shows plasmonic sensors and catalysts need not be mutually exclusive” <http://phys.org/news/2015-11-tiny-octopods-catalyze-bright-ideas.html>; See also **NanoWerk**, **Science Daily**, **R&D Headlines**, among others.

(57) Koczur, K. M.; Mourdikoudis, S.*; Polavarapu, L.; Skrabalak, S. E.* “Polyvinylpyrrolidone (PVP) in Nanoparticle Synthesis” *Dalton Transactions* (invited manuscript), **2015**, *44*, 17883-17905. DOI: 10.1039/C5DT02964C.

- On Most Accessed List Oct-Dec. 2015: <http://blogs.rsc.org/dt/2016/03/04/top-10-most-accessed>.

(56) Smith, A. F.; Weiner, R. G.; Bower, M. M.; Dragnea, B.; Skrabalak, S. E.* “Structure versus Composition: a Single-Particle Investigation of Plasmonic Bimetallic Nanocrystals” *Journal of Physical Chemistry C*, **2015**, *119*, 22114-22121. DOI: 10.1021/acs.jpcc.5b06691.

(55) Weiner, R. G.; Kunz, M. R.; Skrabalak, S. E.* “Seeding a New Kind of Garden: Synthesis of Architecturally Defined Multi-metallic Nanostructures by Seed-Mediated Co-Reduction” *Accounts of Chemical Research* (invited manuscript), **2015**, *48*, 2688-2695. DOI: 10.1021/acs.accounts.5b00300.

(54) Ataee-Esfahani, H.; Skrabalak, S. E.* “Attachment-Based Growth: Building Structurally Defined Metal Nanocolloids Particle by Particle” *RSC Advances* (invited manuscript – themed issue on Advanced Nanomaterials – Sustainable Preparation and Their Catalytic Applications) **2015**, *5*, 47718 - 47727. DOI: dx.doi.org/10.1039/c5ra07156a.

(53) Weiner, R. G.; Smith, A. J.; Skrabalak, S. E.* “Synthesis of Hollow and Trimetallic Nanostructures by Seed-mediated Co-Reduction” *Chemical Communications*, **2015**, *51*, 8872-8875. DOI: dx.doi.org/10.1039/C5CC02318A.



(52) Chen, D. P.; Fu, J.; Skrabalak, S. E.* “Towards Shape Control of Metal Oxide Nanocrystals in Confined Molten Media” *ChemNanoMat* (invited manuscript), **2015**, *1*, 18-26. DOI: dx.doi.org/10.1002/cnma.201500032.

- On most downloaded list for 2015.

(51) Fu, J.; DeSantis, C. J.; Weiner, R. G.; Skrabalak, S. E.* “Aerosol-assisted Synthesis of Shape-Controlled CoFe_2O_4 : Topotactic *versus* Direct Melt Crystallization” *Chemistry of Materials* (Editor’s Choice Manuscript), **2015**, *27*, 1863-1868. DOI: dx.doi.org/10.1021/acs.chemmater.5b00109.

• Most downloaded paper at *Chemistry of Materials* in 2015.

(50) Ortiz, N.; Hammons, J. A.; Cheong, S.; Skrabalak, S. E.* “Monitoring Ligand-Mediated Growth and Aggregation of Metal Nanoparticle and Nanodendrite Formation by In-situ Synchrotron Scattering Techniques” *ChemNanoMat*, **2015**, *1*, 109-114. DOI: dx.doi.org/10.1002/cnma.201500006.

(49) Weiner, R. G.; Skrabalak, S. E.* “Metal Dendrimers: Synthesis of Hierarchically Stellated Nanocrystals by Sequential Seed-Directed Overgrowth” *Angewandte Chemie* (Hot Paper), **2015**, *54*, 1181-1184. DOI: dx.doi.org/10.1002/anie.201409966R1.

• Featured in *Angewandte Highlight*, **2015**, “Increasing Complexity while Maintaining a High Degree of Symmetry in Nanocrystal Growth.” DOI: dx.doi.org/10.1002/anie.201411800.

(48) Chen, D. P.; Bowers, W.; Skrabalak, S. E.* “Aerosol-Assisted Combustion Synthesis of Single-Crystalline NaSbO_3 Nanoplates: a Topotactic Template for Ilmenite AgSbO_3 ” *Chemistry of Materials*, **2015**, *27*, 174-180. DOI: dx.doi.org/10.1021/cm503711r.

(47) Ortiz, N.; Weiner, R. G.; Skrabalak, S. E.* “Ligand-Controlled Co-Reduction *versus* Electroless Co-Deposition: Synthesis of Nanodendrites with Spatially Defined Bimetallic Distributions” *ACS Nano*, **2014**, *12*, 12461-12467. DOI: dx.doi.org/10.1021/nn5052822.

(46) Weiner, R. G.; DeSantis, C. J.; Cardoso, M. B. T.; Skrabalak, S. E.* “Diffusion and Seed Shape: Intertwined Parameters in the Synthesis of Branched Metal Nanostructures” *ACS Nano*, **2014**, *8*, 8625-8635. DOI: dx.doi.org/10.1021/nn5034345.

(45) Bower, M. M.; DeSantis, C. J.; Skrabalak, S. E.* “A Quantitative Analysis of the Effects of Anions and pH on the Growth of Bimetallic Nanostructures” *Journal of Physical Chemistry C*, **2014**, *118*, 18762-18770. DOI: dx.doi.org/10.1021/jp5053776.

(44) DeSantis, C. J.; Sue, A. C.; Radmilovic, A.; Liu, H.; Losovyj, Y.; Skrabalak, S. E.* “Shaping the Synthesis and Assembly of Symmetrically Stellated Au/Pd Nanocrystals with Aromatic Additives” *Nano Letters*, **2014**, *14*, 4145-4150. DOI: dx.doi.org/10.1021/nl501802u.

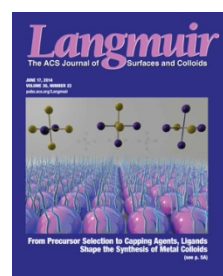
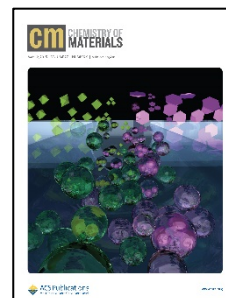
(43) Ortiz, N.; Skrabalak, S. E.* “On the Dual Roles of Ligands in the Synthesis of Colloidal Metal Nanostructures” *Langmuir* (invited Feature Article), **2014**, *30*, 6649–6659. DOI: dx.doi.org/10.1021/la404539p.

(42) Motl, N. E.; Smith A. F.; DeSantis, C. J.; Skrabalak, S. E.* “Engineering Plasmonic Metal Colloids through Composition and Structural Design” *Chemical Society Reviews* (invited manuscript – themed issue on Nanoplasmonics), **2014**, *43*, 3823-3834. DOI: dx.doi.org/10.1039/C3CS60347D.

(41) DeSantis, C. J.; Skrabalak, S. E.* “Manipulating the Optical Properties of Symmetrically Branched Au/Pd Nanocrystals through Interior Design” *Chemical Communications* (invited manuscript – Emerging Investigator Issue 2014), **2014**, *50*, 5367-5369. DOI: dx.doi.org/10.1039/c3cc48441f.

(40) Laskar, M.; Skrabalak, S. E.* “Decoupling the Geometric Parameters of Pd Nanocatalysts” *ACS Catalysis*, **2014**, *4*, 1120-1128. DOI: dx.doi.org/10.1021/cs401064d.

(39) DeSantis, C. J.; Weiner, R.; Radmilovic, A.; Bower, M. M.; Skrabalak, S. E.* “Seeding Bimetallic Nanostructures as a New Class of Plasmonic Colloids” *Journal of Physical Chemistry Letters* (invited perspective), **2013**, *4*, 3072-3082. DOI: dx.doi.org/10.1021/jz4011866.



• Work highlighted in Murphy, C. J. “Future Plasmonic Nanomaterials” *Journal of Physical Chemistry Letters*, **2013**, *4*, 3152.



(38) Laskar, M.; Zhong, X.-L.; Li, Z.; Skrabalak, S. E.* “Manipulating the Kinetics of Seeded Growth for Edge-Selective Deposition of Metal and the Formation of Concave Au Nanocrystals” *ChemSusChem* (invited manuscript – Special Issue: Shape-Controlled Nanostructures for Energy and Sustainability Applications), **2013**, *6*, 1959-1965. DOI: dx.doi.org/10.1002/cssc.201300383.

(37) Mann, A. K. P.; Fu, J.; DeSantis, C. J.; Skrabalak, S. E.* “Spatial and Temporal Confinement of Salt Fluxes for the Shape-Controlled Synthesis of Fe₂O₃ Nanocrystals” *Chemistry of Materials*, **2013**, *25*, 1549-1555. DOI: dx.doi.org/10.1021/cm3038087.

(36) Motl, N. E.; Mann, A. K. P.; Skrabalak, S. E.* “Aerosol-Assisted Synthesis and Assembly of Nanoscale Building Blocks” *Journal of Materials Chemistry A* (invited manuscript – Rising Stars, Young Nanoarchitects in Material Science), **2013**, *1*, 5193-5202. DOI: dx.doi.org/10.1039/C3TA01703F.

(35) Mann, B. F.; Mann, A. K. P.; Skrabalak, S. E.; Novotny, M. V.* “Sub 2- μ m Macroporous Silica Particles Derivatized for Enhanced Lectin Affinity Enrichment of Glycoproteins” *Analytical Chemistry*, **2013**, *85*, 1905-1912. DOI: dx.doi.org/10.1021/ac303274w.

(34) DeSantis, C. J.; Skrabalak, S. E.* “Core Values: Elucidating the Role of Seed Structure in the Synthesis of Symmetrically Branched Nanocrystals” *Journal of the American Chemical Society*, **2013**, *135*, 10-13. DOI: dx.doi.org/10.1021/ja308456w.

(33) Ortiz, N.; Skrabalak, S. E.* “Manipulating Local Ligand Environments for Controlled Nucleation of Metal Nanoparticles and their Assembly into Nanodendrites” *Angewandte Chemie*, **2012**, *51*, 11757-11761. DOI: dx.doi.org/10.1002/anie.201205956.

(32) Mann, A. K. P.; Wicker, S.; Skrabalak, S. E.* “Aerosol-Assisted Molten Salt Synthesis of NaInS₂ Nanoplates for Use as a New Photoanode Material” *Advanced Materials*, **2012**, *24*, 6186-6191. DOI: dx.doi.org/10.1002/adma.201202299.

(31) Mann, A. K. P.; Steinmiller, E. M. P.; Skrabalak, S. E.* “Elucidating the Structure-Dependent Photocatalytic Properties of Bi₂WO₆: a Synthesis Guided Investigation” *Dalton Transactions* (invited manuscript – New Talent Americas Issue), **2012**, *41*, 7939-7945. DOI: dx.doi.org/10.1039/C2DT30097D.

(30) DeSantis, C. J.; Skrabalak, S. E.* “Size-Controlled Synthesis of Au/Pd Octopods with High Refractive Index Sensitivity” *Langmuir* (invited manuscript – Special Issue: Colloidal Nanoplasmonics), **2012**, *28*, 9055-9062. DOI: dx.doi.org/10.1021/la3002509.

(29) DeSantis, C. J.; Sue, A. C.; Bower, M. M.; Skrabalak, S. E.* “Seed-Mediated Co-Reduction: A Versatile Route to Architecturally Controlled Bimetallic Nanostructures” *ACS Nano*, **2012**, *6*, 2617-2628. DOI: dx.doi.org/10.1021/nn2051168.

(28) Xu, L.; Steinmiller, E. M. P.; Skrabalak, S. E.* “Achieving Synergy with a Potential Photocatalytic Z-Scheme: Synthesis and Evaluation of Nitrogen-doped TiO₂/SnO₂ Composites” *Journal of Physical Chemistry C*, **2012**, *115*, 871-877. DOI: dx.doi.org/10.1021/jp208981h.

(27) DeSantis, C. J.; Pevery, A. A.; Peters, D. G.; Skrabalak, S. E.* “Octopods versus Concave Nanocrystals: Control of Morphology by Manipulating the Kinetics of Seeded Growth via Co-Reduction” *Nano Letters*, **2011**, *11*, 2164-2168. DOI: dx.doi.org/10.1021/nl200824p.

(26) Ortiz, N.; Skrabalak, S. E.* “Controlling the Growth Kinetics of Nanocrystals via Galvanic Replacement: Synthesis of Au tetrapods and Star-shaped Decahedra” *Crystal Growth & Design*, **2011**, *11*, 3545-3550. DOI: dx.doi.org/10.1021/cg200484m.

(25) Mann, A. K. P.; Skrabalak, S. E.* “Synthesis of Single-Crystalline Nanoplates by Spray Pyrolysis: a Metathesis Route to Bi_2WO_6 ” *Chemistry of Materials*, **2011**, *23*, 1017-1022. DOI: dx.doi.org/10.1021/cm103007v.

• Featured in *Progress in Materials Science*, **2012**, “Zero-dimensional, one-dimensional, two-dimensional and three-dimensional nanostructured materials for advanced electrochemical energy devices.” DOI: dx.doi.org/10.1016/j.pmatsci.2011.08.003

(24) Peterson, A. K.; Morgan, D. G.; Skrabalak S. E.* “Aerosol Synthesis of Porous Particles Using Simple Salts as a Pore Template” *Langmuir*, **2010**, *26*, 8804-8809. DOI: dx.doi.org/10.1021/la904549t.

(23) Skrabalak, S. E.* “Ultrasound-Assisted Synthesis of Carbon Materials” *Physical Chemistry Chemical Physics* (invited perspective), **2009**, *11*, 4930-4942. DOI: dx.doi.org/10.1039/B823408F.

(22) Jones, A. C.; Olmon, R. L.; Skrabalak, S. E.; Wiley, B. J.; Xia, Y.; Raschke, M. B. “Mid-IR Plasmonics: Near-Field Imaging of Coherent Plasmon Modes of Silver Nanowires” *Nano Letters*, **2009**, *9*, 2553-2558. DOI: dx.doi.org/10.1021/nl900638p.

(21) Staleva, H.; Skrabalak, S. E.; Carey, C. R.; Kosel, T.; Xia, Y.; Hartland, G. V. “Coupling to Light, and Transport and Dissipation of Energy in Silver Nanowires” *Physical Chemistry Chemical Physics*, **2009**, *11*, 5889-5896. DOI: dx.doi.org/10.1039/B901105F.

(20) Cobley, C. M.; Skrabalak, S. E.; Campbell, D. J.; Xia, Y. “Shape-Controlled Synthesis of Silver Nanoparticles for Plasmonic and Sensing Applications” *Plasmonics*, **2009**, *4*, 171-179. DOI: dx.doi.org/10.1007/s11468-009-9088-0.

(19) Skrabalak, S. E. ;* Xia, Y. “Pushing Nanocrystal Synthesis toward Nanomanufacturing” *ACS Nano*, **2009**, *3*, 10-15. DOI: dx.doi.org/10.1021/nn800875p.

• See *NanoWerk*, 2009, “One route to nanomanufacturing leads through nanocrystal synthesis” <http://www.nanowerk.com/spotlight/spotid=9106.php>

(18) Lu, X.; Rycenga, M.; Skrabalak, S. E.; Wiley, B.; Xia, Y. “Chemical Synthesis of novel plasmonic nanoparticles” *Annual Review of Physical Chemistry*, **2009**, *60*, 167-192. DOI: dx.doi.org/10.1146/annurev.physchem.040808.090434.

(17) Xia, Y.; Xiong, Y.; Lim, B.; Skrabalak, S. E. “Shape-Controlled Synthesis of Metal Nanocrystals: Simple Chemistry meets Complex Physics?” *Angewandte Chemie*, **2009**, *48*, 60-103. DOI: dx.doi.org/10.1002/anie.200802248.

• On Journal’s *Most Accessed in 1/2011-12/2011* and *Most Cited* Lists

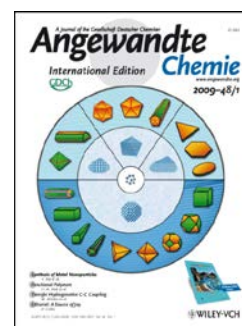
(16) Guo, Q.; Zhao, Y.; Wang, Z.; Skrabalak, S. E.; Lin, Z.; Xia, Y. “Size Dependence of Cubic to Trigonal Structural Distortion in Silver Micro- and Nanocrystals under High Pressure” *Journal of Physical Chemistry C*, **2008**, *112*, 20135-20137. DOI: dx.doi.org/10.1021/jp809177n.

(15) Skrabalak, S. E.; Chen, J.; Sun, Y.; Lu, X.; Au, L.; Cobley, C. M.; Xia, Y. “Gold Nanocages: Synthesis, Properties, and Applications” *Accounts of Chemical Research*, **2008**, *41*, 1587-1595. DOI: dx.doi.org/10.1021/ar800018v.

(14) Wang, Y.; Camargo, P. H. C.; Skrabalak, S. E.; Gu, H.; Xia, Y. “A Facile, Water-Based Synthesis of Highly Branched Nanostructures of Silver” *Langmuir*, **2008**, *24*, 12042-12046. DOI: dx.doi.org/10.1021/la8020904.

(13) Chen, Y.; Munechika, K.; Munro, A. M.; Plante, I. J.-L.; Skrabalak, S. E.; Xia, Y.; Ginger, D. S. “Excitation Enhancement of CdSe Quantum Dots by Single Metal Nanoparticles” *Applied Physics Letters*, **2008**, *93*, 053106. DOI: dx.doi.org/10.1063/1.2956391.

(12) Skrabalak, S. E.; Wiley, B. J.; Kim, M.; Formo, E. V.; Xia, Y. “On the Polyol Synthesis of Silver Nanostructures: Glycolaldehyde as a Reducing Agent” *Nano Letters*, **2008**, *8*, 2077-2081. DOI: dx.doi.org/10.1021/nl800910d.



(11) Korte, K.; Skrabalak, S. E.;* Xia, Y. “Rapid Synthesis of Silver Nanowires by at CuCl- or CuCl₂-Mediated Process” *Journal of Materials Chemistry*, **2008**, *18*, 437-441. DOI: dx.doi.org/10.1039/B714072J.

(10) Yang, X.; Skrabalak, S. E.; Stein, E.; Li, Z.-Y.; Xia, Y.; Wang, L. V. “Photoacoustic Tomography of a Rat Cerebral Cortex *in vivo* with Au Nanocages as an Optical Contrast Agent” *Nano Letters*, **2007**, *7*, 3798-3802. DOI: dx.doi.org/10.1021/nl072349r.

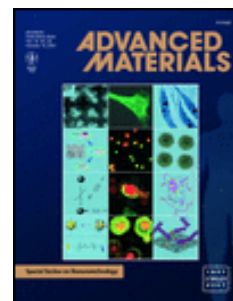
(9) Lu, X.; Chen, J.; Skrabalak, S. E.; Xia, Y. “Galvanic Replacement Reaction: A Simple and Powerful Route to Hollow and Porous Metal Nanostructures” *Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanoengineering and Nanosystems*, **2007**, *221*, 1-16. DOI: dx.doi.org/10.1243/17403499JNN111.

(8) Skrabalak, S. E.; Suslick, K. S. “Carbon Powders Prepared by Ultrasonic Spray Pyrolysis of Substituted Alkali Benzoates” *Journal of Physical Chemistry C*, **2007**, 17807-17811. DOI: dx.doi.org/10.1021/jp071241x.

(7) Skrabalak, S. E.; Au, L.; Lu, X.; Li, X.; Xia, Y. “Gold Nanocages for Cancer Detection and Treatment” *Nanomedicine*, **2007**, *2*, 657-668. DOI: dx.doi.org/10.2217/17435889.2.5.657.

(6) Skrabalak, S. E.; Chen, J.; Au, L.; Lu, X.; Li, X.; Xia, Y. “Gold Nanocages for Biomedical Applications” *Advanced Materials*, **2007**, *19*, 3177-3184. DOI: dx.doi.org/10.1002/adma.200701972.

(5) Skrabalak, S. E.; Au, L.; Li, X.; Xia, Y. “Facile Synthesis of Ag Nanocubes and Au Nanocages” *Nature Protocols*, **2007**, *2*, 2182-2190. DOI: dx.doi.org/10.1038/nprot.2007.326.



(4) Bang, J. H.; Han, K.; Skrabalak, S. E.; Kim, H.; Suslick, K. S. “Porous Carbon Supports Prepared by Ultrasonic Spray Pyrolysis for Direct Methanol Fuel Cell Electrodes” *Journal of Physical Chemistry C*, **2007**, *111*, 10959-10964. DOI: dx.doi.org/10.1021/jp071624v.

(3) Skrabalak, S. E.; Suslick, K. S. “Porous Carbon Powders Prepared by Ultrasonic Spray Pyrolysis” *Journal of the American Chemical Society*, **2006**, *128*, 12642-12643. DOI: dx.doi.org/10.1021/ja064899h.

• See *Nanoparticle News* November 2006.

(2) Skrabalak, S. E.; Suslick, K. S. “On the Possibility of Metal Borides for Hydrodesulfurization” *Chemistry of Materials*, **2006**, *18*, 3103-3107. DOI: dx.doi.org/10.1021/cm060341x.

(1) Skrabalak, S. E.; Suslick, K. S. “Porous MoS₂ Synthesized by Ultrasonic Spray Pyrolysis” *Journal of the American Chemical Society* **2005**, *127*, 9990-9991. DOI: dx.doi.org/10.1021/ja051654g.

• See Wickleder, M. S.; Schlecht, S.; Preis, W. “Solid-state chemistry 2005” *Nachrichten aus der Chemie* 2006, *54*(3), 234-240; *Chemical Engineering Magazine* “Ultrasound-based process makes another promising HDS catalyst” August 2005, pg. 17.; *Popular Mechanics* “Tech Watch: Crude Awakening” November 2005.; *The Engineer Online* “Spray a way to better catalysts” [http://www.theengineer.co.uk/Articles/291392/Spray+a+way+to+better+catalysts.](http://www.theengineer.co.uk/Articles/291392/Spray+a+way+to+better+catalysts.;); *Science Daily* <http://www.sciencedaily.com/releases/2005/07/050712232622.htm>; *PhysOrg.com* <http://www.physorg.com/news5083.html>; *Salem Times Commoner* “Chemists spray way to better catalysts” 22 July 2005 <http://www.salem-tc.com/news/2005/0722/Community/046.html>

Book Chapters:

(4) Skrabalak, S. E.* “Introducing High School Students to Chemical Research through Science Ambassadors” In *Educational and Outreach Projects from the Cottrell Scholars Collaborative*; Waterman, R.; Feig, A., Eds.; ACS Books, **2017**, Accepted.

(3) Skrabalak S. E.;* Steinmiller, E. M. P. “Introducing Global Climate Change and Renewable Energy with Media Sources and a Simple Demonstration” In *Sustainability in the Chemistry Curriculum*; Middlecamp, C. H.; Jorgensen, A. A., Eds.; ACS Books, **2012**, p. 203-213. DOI: dx.doi.org/10.1021/bk-2011-1087.ch018.

(2) Skrabalak, S. E.; Suslick, K. S. "Aerosol Spray Synthesis of Porous Molybdenum Sulfide Powder" In *Material Syntheses: A Practical Guide*; Schubert, U., Ed.; Springer, **2008**, 83-88. DOI: dx.doi.org/10.1007/978-3-211-75125-1_11.

(1) Suslick, K. S.; Skrabalak, S. E. "Sonocatalysis" In *Handbook of Heterogeneous Catalysis*; Ertl, G.; Knozinger, H.; Weitkamp, J., Eds.; Wiley-VCH: Weinheim, **2008**, 2007-2017. DOI: dx.doi.org/10.1002/9783527610044.hetc0107.

Patents or Patent Applications:

(3) Mann, B.; Mann, A. K. P.; Skrabalak, S. E.; Novotny, M. V. "Application of Macroporous Silica Synthesized by a Salt-Templated Aerosol Method for Chromatography" Provisional Patent 61/585,445, **2012**; International Patent application filed PCT/US2013/020768 **2013**.

(2) Korte, K.; Skrabalak, S. E.; Xia, Y. "Rapid Synthesis of Silver Nanowires by a CuCl- or CuCl₂-Mediated Process" Record of Invention Submitted **2007**.

(1) Atkinson, J. D.; Chen, X.; Fortunado, M. E.; Lu, Y.; Rood, M. J.; Rostam-Abadi, M.; Skrabalak, S. E.; Suslick, K. S. "Studies of Mercury Sorbants" Record of Invention Submitted **2007**.

Popularizations:

(3) Brutchey, R. L.;* Skrabalak, S. E.* "Going with the Flow: Continuous Flow Routes to Colloidal Nanocrystals" *Chemistry of Materials* (invited editorial), **2016**, 28, 1003-1005. DOI: 10.1021/acs.chemmater.6b00472.

(2) Smith, A. F.;* Skrabalak, S. E.* "Plasmonic Possibilities: Tomorrow's Sensors and More" *Naval Science and Technology: Future Force Magazine*, **Fall 2015**, 2, 20-21.

(1) Xia, Y.; Skrabalak, S. E. "Improving biomedical imaging with gold nanocages" *SPIE Newsroom*, **12 May 2008**, DOI: dx.doi.org/10.1117/2.1200805.1135.

Citations:

February 2017 from *Goggle Scholar*
h-index = 33
Total citations = 8572

December 2016 from *Web of Science*
h-index = 28
Total citations = 6356

General Media:

- Professor Skrabalak recognized for Guggenheim Fellowship in Washington University's *The Source*: <https://source.wustl.edu/2017/04/stark-wins-guggenheim-fellowship/>
- People Behind the Science Podcast – Stories from Scientists about Science, Life, Research, and Science Careers: <http://www.peoplebehindthescience.com/dr-sara-skrabalak/>
- Baekeland Award Highlight in *Angew. Chem.*, **2016**, 55, 6134. DOI: 10.1002/anie.201603787v.
- Ott Lecture press release from Grand Valley State University: <http://www.gvsu.edu/gvnow/2016/ott-lecture-to-explore-nanomaterials-9312.00000.htm>
- NorthWood High School grad Connor Bunch gains undergraduate research experience at Indiana University: <http://m.elkhartrtruth.com/news/schools/northwood-high-school/2015/12/28/NorthWood-High-School-grad-Connor-Bunch.html>
- Skrabalak Group members featured for undergraduate-graduate student collaboration: <http://viewpoints.iu.edu/student-experience/2015/12/16/collaborative-partnerships-benefit-undergraduate-graduate-student-researchers/>
- Highlighted in Inside IU for collaboration and innovation: <http://inside.indiana.edu/features/videos/2015-09-30-sara-skrabalak.shtml>
- North Jersey Section of the ACS announcement of Baekeland Award <http://www.njacs.org/wp-content/uploads/2015-Baekeland-Award-Article.pdf>.
- C&EN announcement of Baekeland Award <http://cen.acs.org/articles/94/i6/Baekeland-Award-Sara-Skrabalak.html>

- Educational efforts highlighted in Middlecamp, C. H. “Teaching and Learning about Sustainability: The View from CHED” ACS Books
- Announcement of Rudy Professorship at Indiana University <http://inside.iub.edu/headlines/2015-01-22-from-the-desk.shtml>
- Announcement of Scialog Collaborative Innovation Award
<http://www.rescorp.org/news-and-publications/news/detail/four-teams-win-2014-scialog-collaborative-innovation-awards>
- Announcement of Indiana University’s Engineering Task Force
<http://itnews.iu.edu/articles/2014/blue-ribbon-committee-to-assess-establishment-of-new-engineering-program-at-iu-bloomington.php>
- Profiled in the ACS WCC Fall 2014 Newsletter: <http://www.womenchemists.sites.acs.org/>
- Identified in the Herald Times (Bloomington, IN) for outreach activities at Wonderlab:
http://www.heraldtimesonline.com/news/community/wonderlab-event-to-showcase-iu-nanoscientists-and-their-work/article_59bd91b1-03c8-5265-942f-39f4d2b0cdcc.html
- Identified in the Herald Times (Bloomington, IN) as Camille Dreyfus Teacher Scholar:
http://www.heraldtimesonline.com/news/local/news-from-iu-assistant-chemistry-professor-named-dreyfus-teacher-scholar/article_bca2be18-fbdb-55e1-ad5e-234530acd3dd.html
- Identified in the Indiana Daily Student (Bloomington, IN) as Camille Dreyfus Teacher Scholar:
<http://www.idsnews.com/news/story.aspx?id=98393>
- Identified in IU News Room as Camille Dreyfus Teacher Scholar:
<http://news.indiana.edu/releases/iu/2014/05/skrabalak-named-dreyfus-scholar.shtml>
- Group’s work highlighted in the Indiana University’s Annual Report by the Vice President for Research, 2013.
<http://www.iu.edu/~vpr/communications.shtml>
- Identified for Pure Chemistry Award Address in the Spring-Summer 2014 Division of Inorganic Chemistry Newsletter (American Chemical Society). <http://acsdic.org/wordpress/newsletters-2/>
- 2014 ACS National Award Winners Vignettes, ACS Award in Pure Chemistry, Chemical and Chemical Engineering News, Volume 92, Issue 6, page 34, written by Susan J. Ainsworth.
<http://cen.acs.org/articles/92/i6/ACS-Award-Pure-Chemistry.html>
- Profiled by Washington University in St. Louis Chemistry Department:
<http://www.chemistry.wustl.edu/news/wuchem-alum-sara-skrabalak-wins-acp-pure-chemistry-award>
- Profiled on Women in Nanoscience Blog:
<http://www.womeninnano.org/apps/blog/show/41963738-sara-skrabalak-awarded-2014-acp-pure-chemistry-award>
- Pure Chemistry Award Address advertised in Buriak, J. M. “Chemistry and Materials in the Spotlight at the Dallas Spring Meeting” *Chemistry of Materials*, 2014, 26, 1501.
- Profiled in Hometown Paper, The Indiana Gazette: <http://www.indianagazette.com/news/indiana-news/indiana-native-wins-800000-grant-for-research,17467463/>
- Identified in the Herald Times (Bloomington, IN) as a Sloan Research Fellow:
<http://www.heraldtimesonline.com/stories/2013/03/09/news.qp-3788848.sto>
- Identified in New York Times as a Sloan Research Fellow:
http://www.sloan.org/fileadmin/media/files/press_releases/2013_SRF_Press_Release_vf.pdf
- Identified in IU News Room as Sloan Research Fellow: <http://newsinfo.iu.edu/news/page/normal/23893.html>
- Identified in Huffington Post article “Leading Scholar-Educators Address Undergraduate Science Education” See http://www.huffingtonpost.com/james-m-gentile/leading-scholareducators-b_1683028.html
- Identified in IU News Room as Cottrell Scholar: <http://newsinfo.iu.edu/news/page/normal/23092.html>
- Identified in IU News Room for receiving NSF MRI funding for instrumentation in Nanoscale Characterization Facility: <http://newsinfo.iu.edu/web/page/normal/19928.html>
- Expert commentator in RSC’s *Chemistry World*.
See <http://www.rsc.org/chemistryworld/News/2011/April/18041101.asp>
- Featured in the Spring 2011 edition of *Chemistry Periodical*, a Washington University in St. Louis publication. See http://www.chemistry.wustl.edu/chemistry_periodical
- Selected for “Who’s Who in America” in 2010.
- See IU Homepages, Fall 2009: <http://homepages.indiana.edu/web/page/normal/10109.html>
- See IU “A Day in the Life of the College”, Fall 2009 <http://college.indiana.edu/gallery/gallery2.shtml>

Presentations:

2018

- Invited Facilitator of “Power Hour” discussion on women in science, Noble Metal Nanoparticles Gordon Research Conference, Mount Holyoke College (June 17-22)
- Invited Conference Mentor and Career Panel Speaker, Noble Metal Nanoparticles Gordon Research Seminar, Mount Holyoke College (June 16-17)

2017

- Invited Speaker, Magomedov-Shcherbinina Memorial Lecture, University of Rochester, Department of Chemistry (Sept. 20)
- Invited Speaker, ACS National Meeting, Symposium: *Noble Metal Nanoparticles for Bioimaging, Sensing & Actuation*, Washington DC (Aug. 20-24)
- Invited Speaker, ACS National Fall Meeting, Symposium: *Advanced Nanomaterials Catalysts for Sustainable Energy & Fuel*, Washington DC (Aug. 20-24)
- Invited Speaker, ACS National Fall Meeting, Symposium: *Photoresponsive Nanoparticles: From Fundamentals of Excitation to Applications*, Washington DC (Aug. 20-24)
- Invited Speaker, ACS National Fall Meeting, Symposium: *Transformational Research, Excellence in Education*, Washington DC (Aug. 20-24)
- Invited Speaker, BES Catalysis Science Research PI Meeting: *Advances in the Design & Synthesis of Multimetallic Nanocatalysts*, (July 24-28)
- Invited Speaker, Canadian Society of Chemistry National Conference, Symposium: *Nano and Hybrid Materials*, Toronto, Canada (May 28-June 1)
- Invited Speaker, ACS National Spring Meeting, Symposium: *Nanoscale Materials: Structure and Function in 0, 1, and 2-dimensions*, San Francisco, CA (April 2-6)
- Invited Speaker, ACS National Spring Meeting, Symposium: *Synthesis of Catalysts by Non-Traditional Methods*, San Francisco, CA (April 2-6)
- Invited Speaker, Materials Research Society Spring Meeting, Symposium: *Molecular and Colloidal Plasmonics – Synthesis and Applications*, Phoenix, AZ (April 17 -21)
- Invited Speaker, Pittcon, Symposium: *Plasmonic Toolbox for Chemical Analysis*, Chicago, IL (March 5-9)
- Chemistry Department Seminars: University of California – Berkeley (Feb. 10), University of Missouri – Columbia (Sept. 29), Rochester Institute of Technology (TBD), Nanjing Normal University (TBD), Soochow University (TBD)

2016

- Invited Speaker, Indiana University Student Section of SACNAS Meeting (Nov. 9)
- Invited Speaker, ACS National Fall Meeting, Symposium: *Nanoscience Award Symposium in Honor of Raymond Schaak*, Philadelphia, PA
- Invited Speaker, Crane-IU Engagement with MSIs (July 27)
- Invited Speaker, Noble Metal Nanoparticle Gordon Research Conference, Mount Holyoke College, MA
- Invited Speaker, Joint US-Africa Materials Institute (JUAMI), Workshop: *Materials for Sustainable Energy*, Arusha, Tanzania (May 29-June 10)
- Invited Speaker, Endowed Arnold C. Ott Lectureship, Grand Valley State University, Department of Chemistry (Apr. 14/15)
- Invited Speaker, DOW Endowed Lectureship, University of Minnesota, Department of Chemistry (Mar. 10)
- Invited Speaker, Student Affiliates of the ACS, IU-Bloomington, *Research Night* (April 26)
- Invited Panel Speaker, Indiana University Getting You into IU Program (Oct. 18)
- Invited Poster Presentation, Symposium on Research Frontiers in the Chemical Sciences, Camille & Henry Dreyfus Foundation, New York City, NY (Oct 28)
- Chemistry Department Seminars: University of Akron (Oct. 4), Depauw University (Nov. 3)
- Contributed Presentations: 33rd Annual Battery Seminar & Exhibit (1 student presentation), Noble Metal Nanoparticle GRC (1 student presentation), Solid State Chemistry GRC (1 student presentation), ACS National Fall Meeting (1 student presentation), Chicago Catalysis Club (1 student presentation), MRS National Fall Meeting (2 student presentations)

2015

- Invited Speaker, Denkewalter Endowed Lecture, Loyola University – Chicago, Department of Chemistry (Sept. 24)
- Invited Speaker, Baekeland Award Address, Rutgers University (Dec. 4)

- Invited Speaker, Pacifichem 2015, Symposium: *Applications of Ultrasound to Nanomaterials*, Honolulu, HI (Dec. 15-20)
- Invited Speaker, Pacifichem 2015, Symposium: *Organic, Inorganic and Hybrid Nanoparticles: Synthesis, Characterization, and Applications*, Honolulu, HI (Dec. 15-20)
- Invited Speaker, Research Corporation for Science Advancement 2015 Board Meeting (Nov. 6)
- Invited Speaker, XXIV International Materials Research Congress (IMRC), Symposium: *Materials and the Environment*, Cancun, Mexico (August 16-20)
- Invited Speaker, XXIV International Materials Research Congress (IMRC), Symposium: *Frontiers in Plasmonic Materials*, Cancun, Mexico (August 16-20)
- Invited Speaker, 19th Annual ACS Green Chemistry & Engineering Conference, Symposium: *Strategic, Sustainable Chemistries to Functional Materials*, N. Bethesda, MD (July 14-16)
- Invited Speaker, International Conference on Materials for Advanced Technologies – Materials Research Society ICMAT-MRS 2015, Symposium: *Synthesis & Architecture of Nanomaterials*, Singapore (June 28-July 3)
- Invited Speaker, Naval Surface Warfare Center Crane Division, The Failure and Material Analysis Branch, GXMS Laboratory (Jan. 6)
- Chemistry Department Seminars: University of California – Irvine (Chemistry at the Space-Time Limit Center, broadcast via Webex to CaSTL partner universities: University of Utah, University of Pittsburgh, Northwestern, and Penn State, Jan. 29), California Institute of Technology (Feb. 23), University of Cincinnati (Feb. 27), Barnard College (Program Planning Meeting; Mar. 27), Butler University (Apr. 24), Nanyang Technological University, Singapore (June 26), Calvin College (Sept. 10), Hope College (Sept. 11)
- Contributed Presentations: MRS National Spring Meeting (San Francisco, CA; 2 student presentations), ICMAT-MRS 2015 (1 student presentation), North American Solid State Chemistry Conference (2 student presentations), Pacifichem (3 student presentations), Fall ACS Conference (2 student presentations)

2014

- Invited Plenary Speaker, Central Regional Meeting of the American Chemical Society, Pittsburgh, PA (Oct. 31)
- Invited Speaker, IUMRS International Conference of Young Researchers on Advanced Materials (Haikou, China)
- Invited Speaker, ACS National Fall Meeting, San Francisco, CA
- Invited Speaker, Solid State Chemistry Gordon Research Conference, Colby-Sawyer College, NH
- Invited Speaker, Cottrell Scholars Conference, Tucson, AZ, July 9-11
- Invited Speaker, ACS National Spring Meeting, Dallas, TX – Pure Chemistry Award Address
- Invited Speaker, Pitt-PPG “Innovations in Materials Chemistry” Symposium (May 1-3)
- Distinguished Alumni Seminar, University of Illinois at Urbana-Champaign, Department of Chemistry, April 17-18
- Chemistry Department Seminars: University of Chicago (January 10), University of Wisconsin (Department of Chemical and Biological Engineering; February 11), University of West Virginia (March 26), Central College (April 9), University of Iowa (April 10), Iowa State University (April 11), Cornell University (April 28), Michigan State (September 15), University of Science and Technology China (Hefei, China, USTC, Oct. 23)
- Invited Poster Presentations: DOE Catalysis Science Program (Annapolis, MD; July 20-23), Scialog: Solar Energy Conversion (Research Corporation for Science Advancement, Biosphere 2, AZ Oct. 14-17)
- Invited Panelist: Women in Science Panel on Negotiations (Indiana University – Bloomington), NSF CAREER Workshop for pre-tenure faculty (Indiana University – Bloomington, April 4)
- Contributed Presentations: MRS National Spring Meeting (San Francisco, CA; 2 student presentations), Noble Metal Nanoparticle Gordon Research Conference (+2 student presentations), Solid State Chemistry Gordon Research Conference (1 student presentation), IUMRS International Conference of Young Researchers on Advanced Materials (China, 2 student presentations), ACS National Fall Meeting (San Francisco, CA; 3 student presentations), Hutton Honors College (Indiana University; 1 student presentation), IU’s NoBCChE (Indiana University, 4 student presentations)
- Collaborator Presentations: Pittcon (Chicago, IL; 1 student presentation), HPLC 2014 (New Orleans, LA; 1 student presentation)

2013

- Invited Speaker, Zing Conference on Nanomaterials, Cancun, Mexico
- Invited Speaker, ACS National Fall Meeting, Indianapolis, IN
- Invited Speaker, ACS National Spring Meeting, New Orleans, LA (GREET mentor-mentee presentation)
- Chemistry Department Seminars: University of Arkansas (Dec. 2), Boston College (Oct. 17), Indiana University (Aug. 29), University of California – Berkeley (Apr. 5), Wayne State University (Mar. 28), Ohio State University

(Mar. 19), California Institute of Technology (Department of Chemical Engineering; Mar. 7), University of California – Los Angeles (Mar. 6), University of California – Riverside (Mar. 4), University of Illinois at Urbana-Champaign (Feb. 21), Purdue University (Feb. 19), University of Notre Dame (Feb. 7), Pennsylvania State University (Feb. 5), Northern Kentucky University (Jan. 23), University of Miami (Jan. 18), Emory University (Jan. 17), Georgia Institute of Technology (Jan. 16), University of California at Santa Barbara (Jan. 9)

- Contributed Presentations: ACS National Fall Meeting (Indianapolis, IN; 2 student presentations and 3 student posters), MRS National Fall Meeting (Boston, MA; 1 student presentation)

2012

- Invited Speaker, Noble Metal Nanoparticle Gordon Research Conference, Mount Holyoke College, MA
- Invited Speaker, ACS National Fall Meeting, Philadelphia, PA (+3 student presentations)
- Invited Speaker, STEM GROUPS Initiative for Under-Represented Groups, Indiana University (Sept. 19)
- Invited Speaker, Cottrell Scholar Conference, Tucson, AZ
- Chemistry Department Seminars: Rice University (Dec. 5), Northwestern University (Nov. 16), University of Auckland (New Zealand, Oct. 11), Victoria University of Wellington (New Zealand, Oct. 5), National University of Singapore (Department of Chemical and Biomolecular Engineering), Indiana University – Bloomington (School of Public and Environmental Affairs)
- Contributed Presentations: Solid State Chemistry Gordon Research Conference (Colby-Sawyer College, NH), Noble Metal Nanoparticle Gordon Research Conference (Mount Holyoke College, MA; 1 student presentation), IUMRS International Conference of Young Researchers on Advanced Materials (Singapore; 1 oral, 1 poster presentation; Best Poster Awardee), ACS National Fall Meeting, Philadelphia, PA (3 student presentations)

2011

- Invited Speaker, Central Regional Meeting of the ACS, Indianapolis IN
- Invited Speaker, Molecules Matters Workshop, Indiana University
- Invited Speaker, “Tales from the Trenches: Strategies for Teaching Effectively”, Indiana University
- Chemistry Department Seminars: Youngstown State University
- Contributed Presentations: PINDU Inorganic Conference (Indiana University; 4 student presentations), NoBCChe Conference (Indiana University; 1 student presentation), Annual Nanotechnology Symposium at Sullivan University (Louisville, KY; 1 student presentation), ACS National Fall Meeting (Denver, CO; 1 presentation + 2 student presentations), Clusters, Nanocrystals, and Nanostructures Gordon Research Conference (Mount Holyoke College, MA), 85th ACS Colloid and Surface Science Symposium (Montreal Canada; 2 presentations) NoBCChe National Meeting, Houston, TX (1 student presentation), SACNAS Regional Meeting (Chicago, IL; 1 student presentation), ACS National Spring Meeting (Anaheim, CA; 1 student presentation), MRS National Spring Conference (San Francisco, CA; 1 student presentation), Central Regional Meeting of the ACS, Indianapolis IN (4 student presentations)

2010

- Invited Speaker, Pacifichem, Honolulu, HI (2 presentations)
- Invited Speaker, Nanoscience and Project-Based Learning Workshop, Indiana University
- Invited speaker, Heterogeneous Catalysis Workshop, Indiana University Nanoscience Center
- Chemistry Department Seminars: Washington University in St. Louis, Wright State University, Texas Tech University
- Contributed Presentations: MRS National Fall Conference (Boston, MA; 2 presentations), PINDU Inorganic Conference (Purdue University; 3 student presentations), Noble Metal Nanoparticle Gordon Research Conference (Mount Holyoke College, MA), Central Regional Meeting of the ACS (Dayton OH, 2 student presentations), Women in Science Program’s Research Conference (Indiana University, 2 student presentations), ACS National Spring Meeting (San Francisco, CA; 2 presentations)

2009

- Invited Speaker, Federation of Analytical Chemistry and Spectroscopy Societies, Annual Meeting, Louisville, KY
- Invited Speaker, Women Chemist Committee Brown Bag Series, University of Illinois at Urbana - Champaign
- Invited Keynote Speaker, Women in Science Undergraduate Research Conference, Indiana University
- Contributed Presentations: PINDU Inorganic Conference (University of Notre Dame, IN; 2 student presentations), MRS National Fall Conference (Boston, MA; student presentation), ACS National Fall Meeting (Washington, D.C.; student presentation), Women in Science Laboratory Experiences for Undergraduates (Laboratory Tour, Indiana University), MRS National Spring Conference (San Francisco, CA)

2008

- Invited Speaker, Southeastern Regional Meeting of the ACS, Nashville TN
- Invited Speaker, Advance College Project, Indiana University
- Chemistry Department Seminars: Truman State University, Purdue University (School of Materials Engineering), Indiana State University
- Contributed Presentations: ACS National Spring Meeting (New Orleans LA), 14th Annual International Catalysis Conference (Seoul, Korea; collaborator presentation), Society of Photographic Instrumentation Engineers (SPIE) National Meeting (collaborator presentation)

2007

- Contributed Presentations: MRS National Fall Conference (Boston MA)

2006

- Contributed Presentations: ACS National Spring Meeting (San Francisco CA), Nanotechnology Workshop (Beckman Institute, University of Illinois, Urbana IL), ACS National Fall Meeting (Atlanta GA)

2005

- Contributed Presentations: MRS Three-Dimensional Multifunctional Ceramic Composite Workshop (University of Illinois, Urbana IL)

2004

- Contributed Presentations: ACS Great Lakes Regional Meeting (Peoria IL)

Teaching Experience:

Course Instructor, Indiana University

Chem M501	Solid-state and Materials Chemistry; S. 2015, F. 2015, F. 2016
Chem C420	Advanced and Nanoscale Materials; S. 2015 (co-taught with T. Douglas), S. 2016 (co-taught with T. Douglas and A. Flood)
Chem 103	Intro to Chemical Principles; F. 2013
Chem M800	Materials Chemistry Research Seminar; F. 2012, S. 2013
Chem M502	Solid-state and Materials Chemistry; S. 2010, S. 2011, S. 2012, S. 2014
Chem 100	The World of Chemistry; F. 2008, F. 2009, F. 2010 (Themester), F. 2011, F. 2012 (Themester)

Guest Lecturer, Indiana University

H241	The Self-Organizing Planet (Hutton Honors College); F. 2013
Chem 107	Frontiers of Chemical Research; S. 2009 - 15, S. 2017
Chem N800	Inorganic Chemistry Research Seminar; S. 2009, F. 2010

Professional Activities (Regional, National, and International Service):

2020	Chair, Noble Metal Nanoparticles Gordon Research Conference
2018	Vice Chair, Noble Metal Nanoparticles Gordon Research Conference
2017	Guest Editor, Special Issue "Bimetallic Nanoparticles", Wiley Journal <i>Particle</i>
2016 -	Member, Editorial Advisory Board for the RSC Journal <i>Nanoscale</i>
2016	Group Symposium in Honor of Professor Suslick
2016	Chair, Nanoscience sub-division, Division of Inorganic Chemistry, American Chemical Society
2015	Session Chair, XXIV International Materials Research Congress (IMRC), Symposium: <i>Materials and the Environment</i> , Cancun, Mexico (August 16-20)
2015 -	Member, International Advisory Board for the Wiley Journal <i>ChemNanoMat</i>
2015	Chair-elect, Nanoscience sub-division, Division of Inorganic Chemistry, American Chemical Society
2015	Co-organizer of Special Session "Nanocrystal Synthesis, Characterization, Assembly and Applications", Pacificchem 2015, Honolulu, HI
2014	Co-organizer of Special Session "Energy Conversion – Photocatalysis, Fuel Cells & Solar Cells", Second International Conference of Young Researchers on Advanced Materials, Haikou, China
2014	Session Leader of Special Session "Energy Conversion – Photocatalysis, Fuel Cells & Solar Cells", Second International Conference of Young Researchers on Advanced Materials, Haikou, China
2014 -	Member, Editorial Advisory Board for the ACS journal <i>Chemistry of Materials</i>
2014	Designer of <i>Nanoparticles for Stained Glass</i> Station at Wonderlab's "Real Life Science: Nanoscience!" Day, Bloomington, IN
2014	Session Chair, Catalysis Science Program Meeting: Frontiers at the Interface of Homogeneous and Heterogeneous Catalysis (DOE, Annapolis, July 20-23)

- 2014 Session Chair, “Are new materials needed: the role of synthesis in the design of functional materials” Scialog: Solar Energy Conversion (Research Corporation for Science Advancement), Biosphere 2, AZ (Oct. 14-17)
- 2014 Session Chair, “Engaging your Students: Service Learning” Cottrell Scholars Conference, Tucson, AZ (July 9-11)
- 2014 Panel Facilitator, “Engaging the Professional Societies” Cottrell Scholars Collaborative National Teaching Assistant Workshop, Georgia Institute of Technology (May 28-30)
- 2014 Co-organizer of Cottrell Scholars Collaborative National Teaching Assistant Workshop, Georgia Institute of Technology (May 28-30)
- 2013 Session Chair (Colloid Division), ACS National Fall Meeting, Indianapolis, IN
- 2013 Session Chair and Co-organizer of Division of Colloid and Surface Chemistry Special Session “ACS Award in the Chemistry of Materials” in honor of Dr. Younan Xia, ACS National Spring Meeting, New Orleans, LA
- 2012 Co-organizer of Division of Inorganic Chemistry Special Session “Advanced Metal Nanostructures for Catalysis”, ACS National Fall Meeting, Philadelphia, PA
- 2012 Hydrogen Generation and Storage Session Chair, IUMRS-ICYRAM Conference, Singapore
- 2011 Co-organizer of Division of Colloid and Surface Science Special Session “Functional Nanoscale Materials: Synthesis, Characterization, and Applications”, CERMACS, Indianapolis, IN
- 2011 Chair, Southern Indiana Section of the American Chemical Society (SISACS)
- 2010 Session Chair, Inorganic Division General Session, ACS National Spring Meeting, San Francisco, CA
- 2010 Chair-elect, Southern Indiana Section of the American Chemical Society (SISACS)
- 2010 Participant, COACH Workshop, ACS National Spring Meeting, San Francisco, CA

University- and College-Level Service & Committees, Indiana University – Bloomington:

- 2017 – Social Media Co-Chair, Concerned Scientists @ Indiana University
- 2016 – Participant, Faculty-Student Mentoring Initiative
- 2015 – 2016 College Representative, Department of Intelligent Systems Engineering
- 2015 – Faculty Supervisor, MRS@IU Student Chapter
- 2015 Engineering Task Force, BS Curriculum Committee
- 2014 – 2015 Engineering Task Force
- 2013 – Electron Microscopy Center Research Advisory Committee
- 2012 – Electron Microscopy Center Oversight Committee
- 2012 – 2015 Oversight of X-ray Photoelectron Spectroscopy Facility
- 2010 Co-organizer, Heterogeneous Catalysis Workshop, Nanoscience Center
- 2008 – 2012 Women in Science Program (WISP, Office for Women Affairs), Executive Committee Member

Department of Chemistry Service & Committees, Indiana University – Bloomington:

- 2015 – 2016 Materials Faculty Search Committee
- 2015 – Coordinator, Research Experience for Undergraduates
- 2014 – Chair, Diversity Affairs Committee
- 2013 – 2014 Member, Diversity Affairs Committee 2013 – 2014
- 2013 – 2014 Inorganic Faculty Search Committee
- 2013 Coordination Committee for National Fall ACS Conference (Indianapolis)
- 2010 – 2015 Molecular Structure Center (MSC) Advisory Committee
- 2009 – 2013 Women in Chemistry (WIChem)
- 2008 – 2012 Graduate Admissions, Indiana University, Department of Chemistry, Materials Representative

Journal Reviewer:

Science, Nature, Nature Communications, Nature Nanotechnology, Nature Chemistry, PNAS, Journal of the American Chemical Society, Angewandte Chemie, Nano Letters, Advanced Materials, ACS Nano, Chemistry of Materials, Journal of Physical Chemistry C, Journal of Physical Chemistry Letters, Langmuir, Industrial & Engineering Chemistry Research, ACS Applied Materials and Interfaces, Journal of Materials Science, Chemical Science, Chemical Communications, Aerosol Science and Technology, Ultrasonics Sonochemistry, Nanoscale, Nano Research, Crystal Engineering Communications, Crystal Growth & Design, Small, RSC Advances, Microporous and Mesoporous Materials, Journal of Solid State Chemistry, Chemistry: a European Journal, Small, ChemNanoMat, etc.

Grant Reviewer:

Research Corporation for Science Advancement (ad hoc: 2013 – 2016)
American Chemical Society – GREET Program (2013)
American Chemical Society – Petroleum Research Fund (2012, 2014, 2015)
Department of Energy (ad hoc: 2011 – current for Basic Energy Sciences, 2012 SCGF Program)
National Science Foundation (ad hoc: 2010 – current; panels: 2010 DMR CAREER, 2012 DMR MRI, 2012 CHE CAREER, 2013 DMR DMREF, 2014 DMR SSMC, 2015 MRSEC Site Review, 2016 CHE(2x))
Marsden Fund, New Zealand (ad hoc: 2014)
Indiana University – Bloomington (Faculty Research Support Program, 2010 panel)

Professional Organizations:

Materials Research Society, American Chemical Society, Royal Society of Chemistry, Association for Women in Science, Women Chemist Committee, Phi Beta Kappa Honorary Society, Sigma Xi Scientific Society, Alpha Chi Sigma Professional Chemistry Fraternity, American Association for the Advancement of Science

Current Individuals Supervised in the Skrabalak Laboratory:

Position in Skrabalak Laboratory	Name	
Postdoctoral Scholar (2015 –)	Dr. Kallum Koczkur	
Postdoctoral Scholar (2016 –)	Dr. Solomon Gizaw	co-advised w/ Milos Novotny
Postdoctoral Scholar (2016 –)	Dr. Alison Smith	
Graduate Student (2012 – 16)		Thesis: <i>Optical Properties and Sensing Applications of Stellated and Bimetallic Nanoparticles</i>
Graduate Student (2012 – 17)	Jie Fu	Thesis: <i>Advancing Synthetic Strategies to Materials for Solar-to-Fuel-Conversion</i>
Graduate Student (2012 –)	Dennis Chen	
Graduate Student (2014 – 17)	Meredith Hartley	Thesis: <i>Synthesis of Pd-Cu Nanostructures by Seed-mediated Co-reduction</i>
Graduate Student (2014 –)	Evan Rugen	
Graduate Student (2015 –)	Josh Santana	
Graduate Student (2015 –)	Joeyln Legere	
Graduate Student (2015 –)	Alex Chen	
Graduate Student (2015 –)	Nick Daanen	
Graduate Student (2016 –)	Sandra Atehortua Bueno	
Graduate Student (2016 –)	Joshua Smith	
Undergraduate Student (2014 –)	Michael Glennon	
Undergraduate Student (2015 –)	Connor Bunch	
Undergraduate Student (2015 –)	Sophie McClain	
Undergraduate Student (2017 –)	Cari Rice	

Previous Individuals Supervised in the Skrabalak Laboratory:

Visiting Faculty	Name	Last Known Position
2014	Dr. Dale Harak	Associate Professor, Rockhurst University
Postdoctoral Scholars		
2015 – 17	Dr. Chenyu Wang	Professor, Nanjing University of Technology (Institute of Advanced Materials)
2014 – 16	Dr. Hamed Atae-Esfahani	Postdoctoral Scholar, Georgetown University
2012 – 14	Dr. Nathan Motl	Prof. YuYe Tong Huber Engineered Materials, Senior Scientist
2010 – 11	Dr. Lin Xu	Associate Professor, Nanjing Normal University
2009 – 10	Dr. Ellen Steinmiller	Postdoctoral Scholar, NTU (Singapore) Associate Professor, University of Dallas
Graduate Students (PhD)		
2011 – 16	Dr. Rebecca Weiner	Research Chemist, FDA Institute for Food Safety & Health, Chicago, IL

	Thesis: Synthesis of Multimetallic Nanoparticles by Seeded Methods	
2010 – 15	Dr. Moitree Laskar	Assistant Professor (ad hoc), GGSD College, Chandigarh, India Outreach Coordinator, Skrabalak Laboratory
	Thesis: Manipulation of the Geometric and Electronic Parameters of Metal Nanocatalysts	
2009 – 14	Dr. Christopher J. DeSantis	Postdoctoral Scholar, Rice University Prof. Naomi Halas
	Thesis: Manipulating the Architecture of Bimetallic Nanostructures and their Plasmonic Properties	
2008 – 14	Dr. Nancy Ortiz	Quaker Chemical, Philadelphia, Development Chemist III Exxon Mobil, Clinton New Jersey, Advanced Researcher
	Thesis: Synthesis of Branched Metal Nanostructures with Controlled Architecture and Composition	
2008 – 12	Dr. Amanda K. P. Mann	Merck, White House Station, New Jersey, Senior Scientist Postdoctoral Scholar, Oak Ridge National Laboratory Dr. Steve Overbury
	Thesis: Synthesis of Shape- and Architecturally Controlled Particles with Ultrasonic Spray Pyrolysis	
Graduate Students (MS)		
2013 – 15	Ethan Harak	Cook Medical (Bloomington, IN)
	Thesis: Core@Shell Rh@Pt Nanocubes: A Model for Studying Compressive Strain Effects in Bimetallic Nanocatalysts	
2008 – 10	Kun Ha Park	Scientist, LG Chem Research Park (S. Korea)
	Thesis: Stabilizing Zinc Oxide in Titania Based Sols for Composite Nanofiber Formation	
Graduate Students (Other)		
2011 – 12	William Bowers	R&D Manager, Diamond Wire Materials Technology
2011	Corrine Weinle	M.Ed. Candidate, Indiana University
2011	Craig Girten	Advanced Testing Laboratory, Cincinnati OH
Visiting Graduate Students		
2009 – 10	Susanne Wicker	University of Tuebingen, Germany
Undergraduate Researchers		
BS'16, 2013 – 16	Samantha Harvey	Graduate Student, Northwestern University
	Thesis: Analysis of the Structural Features and Optical Properties of Au/Pd Bimetallic Nanoparticles	
BA'15, 2012 – 15	Andjela Radmilovic	Graduate Student, University of Wisconsin
	Thesis: Role of Organic Additives in Shaping Symmetrically Branched Bimetallic Nanostructures	
BA'15, 2014 – 15	Connor Moreillon	Pharmaceutical Product Development, Middleton WI
BA'13, 2011 – 14	Matthew Bower	UC-Irvine Medical School
	Thesis: Effect of Ions on Morphology and Growth Kinetics of Branched Bimetallic Nanostructures	
BS'11, 2011 – 12	Aaron Sue	Graduate Student, Northwestern University
BA'12, 2010 – 11	Adam Richter	Graduate Student, University College London
BA'11, 2009 – 10	Rohit Patel	Graduate Student, NEOMED PharmaD Program
BS'09, 2008 – 09	Patrick McChesney	Graduate Student, Indiana University (Physics)
Visiting Undergraduate Researchers		
2016	Yeon Hyeong Sim	Ewha Womans University, S. Korea
2016	Jingyao Wang	University of Science & Technology, China
2016	Chenhao Ren	University of Science & Technology, China
2016	Joseph Burkhardt	St. Olaf College
2015	Priyanka Arora	IIT Roorkee, India
2014	Cheng Peng	Graduate Student, Iowa State
2013	Huang Lu	Tsinghua University, China
2013	Mariana B. T. Cardosa	Graduate Student, University of Birmingham, UK
2012	Haoming Liu	Tsinghua University, China
2011	Ji Chen	Graduate Student, Tsinghua University, China
2010	Long Sun	Tsinghua University, China