SHERINE O. OBARE, PhD

Interim Vice President for Research and Professor of Chemistry
Western Michigan University
Kalamazoo, MI 49008-5456
Telephone: 269-387-8283 Fax: 269-387-2909 E-mail: sherine.obare@wmich.edu

EDUCATION

Postdoctoral Education in Environmental Chemistry, The Johns Hopkins University, 2002-2004
Ph.D. Inorganic/Analytical Chemistry, University of South Carolina, Columbia, SC, May 2002
B.S. Chemistry, Minor in Biology, (*Cum Laude*) West Virginia State University, Institute, WV, May 1998

PROFESSIONAL HISTORY

08/2017 - Present	**Interim Vice President for Research**, Western Michigan University, Kalamazoo, MI.
12/2016 – 07/2017	**Associate Vice President for Research**, Western Michigan University, Kalamazoo, MI.
02/2015 – 11/2016	**Interim Associate Dean for Research**, College of Arts and Sciences, Western Michigan University, Kalamazoo, MI.
08/2014 – present	**Professor of Chemistry**, Western Michigan University, Kalamazoo, MI.
08/2011 – 06/2016	**Associate Chair**, Department of Chemistry, Western Michigan University, Kalamazoo, MI
11/2009 – 06/2016	**Graduate Advisor**, Department of Chemistry, Western Michigan University, Kalamazoo, MI.
08/2009 – 07/2014	**Associate Professor of Chemistry**, Department of Chemistry, Western Michigan University, Kalamazoo, MI
08/2007 – present	**Adjunct Professor**, Department of Chemical Engineering and Materials Science, Michigan State University, East Lansing, MI
08/2004 – 07/2009	**Assistant Professor of Chemistry**, Department of Chemistry, Western Michigan University, Kalamazoo, MI *[Professional leave 08/07 – 12/08 at* Department of Chemistry, UNC Charlotte, Charlotte, NC]
07/2002 - 07/2004	**Camille and Henry Dreyfus Postdoctoral Fellow**: The Johns Hopkins University, Baltimore, MD

HONORS AND AWARDS

- Named one of the top 25 women professors in the state of Michigan by *Online Schools Michigan,* 2013
- President's Award, National Organization for the Professional Development of Black Chemists and Chemical Engineers (NOBCChE), 2012
- Emerging Scholar Award, Western Michigan University, 2012-13
- Faculty Achievement Award in Professional and Community Service, College of Arts and Sciences, Western Michigan University, 2012
- Science Spectrum Magazine *Trailblazer* Award, 2010, 2011, 2012
- American Competitiveness and Innovation (ACI) Fellowship, Division of Materials Research of the National Science Foundation, 2010
- Lloyd N. Ferguson Young Scientist Award, 2010
- George Washington Carver Teaching Excellence Award, 2009
- International Union of Pure and Applied Chemistry (IUPAC) Young Observer Award, 2009
- International Education Faculty Development Award, 2009
- Carl Storm Minority Fellowship, Gordon Research Conference, 2007
- ACS PROGRESS/Dreyfus Lectureship Award, 2007
- American Chemical Society Leadership Development Award, 2007
- National Science Foundation CAREER Award, 2006-2012
- Arts and Science Teaching and Research Award, WMU, 2005, 2006
- Faculty Research and Creative Activities Support Fund (FRACASF) Award, WMU, 2005

- Research Development Award, WMU, 2005-2006
- Camille and Henry Dreyfus Postdoctoral Fellowship, 2002-2004
- Guy F. Lipscomb Award for Excellence in Chemistry, Univ. South Carolina, 2002
- Joseph W. Bouknight Excellence in Teaching Award for General Chemistry, 1999, 2001

ADMINISTRATIVE DUTIES & ACCOMPLISHMENTS

Interim Vice President for Research, WMU **07/2017 - present**

Primary Responsibilities: Administration of WMU's Research and Sponsored programs, research compliance, technology and innovation advancement, staff supervision, budget management and strategic planning.

ADMINISTRATIVE DUTIES

- Established and implemented organizational goals, strategic plans, policies, and operating procedures to strengthen WMU's research enterprise.
- Negotiated research contracts on behalf of WMU to foster research partnerships with academic, government and industrial entities, international agencies and foundations.
- Initiated an Undergraduate Research and Creative Activities Program to provide guidance for all WMU students to have access to research opportunities both internal and external to WMU.
- Provided oversight for research compliance for WMU, including animal and human subjects, biosafety, and radiation safety.
- Promoted and facilitated development of intellectual property and technology transfer.
- Foster and coordinated activities to in collaboration with office of Business and Finance
- Worked collaboratively with the Provost, Deans, and Faculty members at WMU to promote participation of both individuals and groups in research, scholarly, and creative activity.

Associate Vice President for Research, WMU **12/2016 - 07/2017**

Primary Responsibilities: Management of the University's research and sponsored programs, research compliance, pre-award contracts, internal funding opportunities, facilitation of research collaborations, and strengthening WMU's research enterprise.

ADMINISTRATIVE DUTIES

- Managed the University's Research and Sponsored Programs Office and ensured that all grants submissions adhered to federal and state laws and university policies. Reviewed and approved all sponsored grant submissions.
- Ensured that all research activities complied with laws, regulations, policies, and guidelines that govern externally sponsored research activities.
- Worked collaboratively with the Office of Grants and Contracts to address matters related to post-award activities.
- Provided workshops to enhance understanding of laws governing international research involving collaborators, faculty and students.
- Initiated research partnerships for WMU faculty and collaborators in the State of Florida to strengthen presence at new WMU location.
- Worked collaboratively with colleges to build partnerships in joint research and grant submissions.
- Facilitated and led workshops for junior faculty and graduate students to enhance understanding of grant submission and adhering to required policies.

Interim Associate Dean, College of Arts and Science (CAS), WMU 02/2015-11/2016
Primary Responsibilities: Research and creative activities, student success, global engagement, interdisciplinary and graduate programming, and diversity and inclusion. Accomplishments include:

ADMINISTRATIVE DUTIES

- Administered the college's summer budget for 2015-16 academic year, working directly with department chairs to manage enrollment and its budgetary impact on the college.
- Worked closely with the University Legal Counsel, Office of Academic Labor Relations, and the AAUP Chapter to resolve faculty conflicts, matters related to ethical conduct and held investigatory and disciplinary hearings as required.
- Administered all College's Awards review and had direct oversight of award budgets for faculty, staff and students awards.
- Reviewed departmental academic program review and worked with chairs on planning processes for program growth and/or restructuring.
- Served as acting director for Africana Studies and managed the program's course offerings.
- Served on the University's Campus Planning and Finance Council.

RESEARCH AND CREATIVE ACTIVITY

- Chaired the College of Arts and Sciences Research, Scholarly and Creative Activities Committee and enhanced discovery activities within the college.
- Implemented policies and developed resources to promote and enhance the research enterprise in the College of Arts and Sciences.
- Served as a resource for the college's faculty seeking to develop strategic research initiatives and respond to emerging opportunities.
- Served as a liaison to the Office for the Vice President for Research and represented the College in University-wide activities related to the research mission.
- Promoted international research collaborations.
- Supported effective interaction between the Departments and the University around grant and contract submission and management.
- Administered proposal review process and total award budget of the College's Discovery and Dissemination Award.
- Negotiated cost-share agreements to improve probability of funding of proposal applications for faculty within the college.

GRADUATE AND INTERDISCIPLINARY PROGRAMMING

- Administered the allocation of the college's graduate assistantship budget.
- Directed the review and award process of the college's interdisciplinary research initiation award.
- Spearheaded the re-establishment of a major and a minor in African and African American Studies to meet the needs of today's students.
- Establishing an interdisciplinary graduate certificate in diversity leadership.

STUDENT SUCCESS

- Collaborated with the Dean and the Director of Student Success Services to initiate the '**Gateways to Completion'** program in the Departments of Biological Sciences, Chemistry, Mathematics, Physics and Psychology. The program follows guidelines by the Gardner Institute for Excellence in Undergraduate Education to improve retention in their courses, with an emphasis on first generation and underrepresented populations.
- Collaborated with faculty and administrators at Kalamazoo Valley Community College and at Lake Michigan College to strengthen communication and collaboration amongst faculty members at WMU to enhance pedagogical alignment in Science and Mathematics courses.

- Developed faculty-learning communities for professors to develop a common read to develop strategies to strengthen their skills in teaching.

GLOBAL ENGAGEMENT

- Chaired the Arts and Sciences International Committee aimed at strengthening the college global engagement initiatives.
- Developed an initiative to develop global engagement courses across the college offered to undergraduate students.
- Collaborated with the Haenicke Institute for Global Education to strengthen opportunities for students to participate in faculty-led study abroad courses.
- Administered the application review process and the budget for the College's International Study Scholarship.

DIVERSITY AND INCLUSION

- Chaired the College of Arts and Sciences Diversity and Inclusion Committee to address the College's needs to enhance diversity across campus.
- Supported staff and faculty in strengthening a K-12 student STEM summer camp hosted by the Lewis Walker Institute for Race and Ethnic Relation by providing access to science laboratories.
- Served as a liaison between the College of Arts and Sciences, the Office of Diversity and Inclusion and the Office of Multicultural Affairs.
- Administered the diversity and inclusion faculty and staff award
- Administered a diversity student competition in which students write essays highlighting their experiences and issues related to multiculturalism.

Associate Chair, Department of Chemistry, WMU **08/2011-06/2016**

DEPARTMENT GRADUATE ADVISOR AND ASSOCIATE CHAIR

Primary Responsibilities: Course scheduling for faculty and graduate student teaching assistants, graduate assistantship budget management, advising graduate students, and recruitment efforts.

- Developed a graduate student review process in the Department of Chemistry by collaborating with departmental faculty members to establish proper policies to review graduate students. The policies led to the establishment of proper guidelines on developing timelines for students to meet specific goals and an approved graduate student review policy.
- Established and organized an annual Chemistry Research Symposium for chemistry students to showcase their research accomplishments. The event raised awareness of the good research work ongoing in the department and further provided students with a venue to present their work prior to attending a major conference.
- Founded a student chapter for underrepresented minority students in the sciences through the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers. Through this student chapter, students are able to come together and discuss topics including navigating graduate degrees in the sciences as well as several professional development strategies.

BRIDGES TO THE BACCALAUREATE PROGRAM, WMU

CO-DIRECTOR 09/2006 – 08/2009; DIRECTOR, 09/2009 – 08/2010

Primary Responsibilities: Recruiting and training underrepresented minority students in the biomedical and behavioral sciences from community colleges.

- The principle objectives of the NIH-sponsored educational project was to recruit, train and increase the number of talented underrepresented minority (URM) students attending community colleges to transfer to a four-year degree granting institutions, and enroll in a major related to the biomedical or behavioral sciences.
- Through this project, student participants were provided with unique opportunities of scientific enculturation involving educational and research experiences to motivate students to enter graduate

programs or a workforce in the biomedical or behavioral sciences. The project was a collaborative effort with three community colleges.

RESEARCH ACCOMPLISHMENTS

RESEARCH PROGRAM:

The research program established at Western Michigan university focuses on five main themes:

- Elucidating the mechanisms of multielectron transfer for solar energy conversion, degradation of environmental pollutants including organic halides, organic pesticides and carbon dioxide (Funded by NSF)
- Developing synthetic procedures to manufacture uniform size- and shaped-controlled nanoscale materials for catalytic applications (Funded by NSF).
- Producing nanoscale catalysts for biomass conversion into commodity chemicals (Funded by NSF and Michigan Development Corporation)
  - Collaborators: Robert Ofoli; James E. Jackson, Dennis Miller, Gary Blanchard (Michigan State University); Roger Glaser (Leipzig University)
- Designing and synthesizing nanomaterials and molecular compounds with novel optical and electrochemical properties for detection of chemical and biological substances (Funded by NSF, ARL and DOD)
  - Collaborators: Massood Atashbar (WMU), Ekkehard Sinn (WMU), Ramakrishna Guda (WMU), Adnane Abdelghani (Institute for Nanotechnology and Applied Science, Tunisia)
- Understanding the interactions of nanomaterials with microbial pathogens to better understand their health and safety (Funded by NSF).
  - Collaborators: Adnane Abdelghani (Institute for Nanotechnology and Applied Science, Tunisia)
- Establishing standardization is characterization techniques and preparation methods for nanoparticles (Funded by NSF and IUPAC)
  - Collaborators: Alina Balu (University of Cordoba); Rafael Luque (University of Cordoba, Spain), Jillian Goldfarb (Boston University)
- Improving STEM education for K-12, undergraduate and graduate students (Funded by NSF, NIH and DoE)

PUBLICATIONS

[∫ = postdoctoral fellow; ‡ = graduate student; § = undergraduate student, ◊ = high school student]

1. Current, K. M.‡; Dissanayake, N. M.‡; **Obare, S. O**. 'Effect of Iron Oxide Nanoparticles and Amoxicillin, on Bacterial Growth in the Presence of Dissolved Organic Carbon,' *Biomedicines* **2017**, *5*, 55.
2. Al-Zubaidi, H. A.‡; Bonner, C. D. J.‡; Liu, M.‡; **Obare, S. O**. 'Strategies for the Synthesis of Anisotropic Catalytic Nanoparticles,' in Anisotropic and Shape-Selective Nanomaterials. Chapter 12, Ed. Hunyadi Murph, S. E; Larsen, G. K.; Coopersmith, K. J. **2017**, 375-398. ISBN-13: 978-3319596617.
3. Reddy, A. S. G. ‡; Wabeke, J. T. ‡; Narakathu, B.B.; Maddipatla, D. ‡; Arachchilage, J. S. ‡; **Obare, S. O**.; Atashbar, M. Z. 'A Screen Printed Phenanthroline-Based Flexible Electrochemical Sensor for Selective Detection of Toxic Heavy Metal Ions.' *IEEE Sensors Journal*. **2016**, *16*, 8678-8684.
4. Murray, D. H.; **Obare, S. O.**; Hageman, J. H. 'Early Research: A Strategy for Inclusion and Student Success,' in *The Power and Promise of Early Research*. Chapter 1, Eds: Murray, D. H.; Obare, S. O.; Hageman, J. H. **2016**, 1 – 32.
5. Murray, D. H.; **Obare, S. O.**; Hageman, J. H. 'The Future of Early Research,' in *The Power and Promise of Early Research*. Chapter 13, Eds: Murray, D. H.; Obare, S. O.; Hageman, J. H. **2016**, 247 – 254.
6. Dissanayake, N. M.‡; Current, K. M.‡; **Obare, S.O.** 'Mutagenic Effects of Iron Oxide Nanoparticles on Biological Cells,' *Int. J. Mol. Sci.* **2015**, 16, 23482-23516.
7. Ramshani, Z. ‡; Reddy, A. S. G. ‡; Narakathu, B.B.; Wabeke, J. T. ‡; **Obare, S. O.**; Atashbar, M. Z. 'SH-SAW sensor based microfluidic system for the detection of heavy metal compounds in liquid environments.' *Sensors and Actuat*ors B. **2015**, *217*, 72-77.
8. Luque, R.; **Obare, S. O**. 'Editorial: Green Chemistry and the Environment.' *ChemSusChem*. **2015**, *8*, 1632–1633.

9. **Obare, S. O.**; Luque, R. 'Green Technologies for the Environment' in Green Technologies for the Environment. Chapter 1, Eds; Obare, S.O.; Luque. R. **2014**, 1-6.

10. Wabeke, J. T.; Al-Zubaidi, H.; Adams, C. P.; Ariyadasa, L. A. W.; Nick, S. T.; Bolandi, A.; Ofoli, R. Y.; **Obare, S. O.** in Green Technologies for the Environment. Chapter 12, Eds; Obare, S.O.; Luque. R. **2014**, 219 – 246.

11. Tahmasebi Nick, S.; Bolandi, A.; Samuels, T. A.; **Obare, S. O.** 'Advances in Understanding the Transformation of Engineered Nanoparticles in the Environment,' *Pure and Applied Chemistry* **2014**, *86,* 1129-1140.

12. Adams, C.P.; Walker, K.A.; **Obare, S.O.**; Docherty, K.M. 'Size-Dependent Antimicrobial Effects of Novel Palladium Nanoparticles,' *PLoS ONE* **2014**, *9*, e85981.

13. Ma, X.; Lin, R.; Beuerle, C.; Jackson, J. E.; **Obare, S. O.**; Ofoli, R. Y. 'Effects of surface activation on the structural and catalytic properties of ruthenium nanoparticles supported on mesoporous silica,' *Nanotechnology* **2014**, *25*, 045701.

14. Abdelghani, A.; Menaa, B.; **Obare, S.O.**; Schoning, M. J. 'Editorial: Nanoscale Science and Technology,' *Int. J. Nanotechnol*. **2013**, *10*, 373-375.

15. Baccar, H.[‡]; Adams, C. P.[‡]; Abdelghani, A.; **Obare, S. O.** Chronoamperometric-based detection of hydrogen peroxide using palladium nanoparticles,' *Int. J. Nanotechnol*. **2013**, *10*, 563-576.

16. Wabeke, J. T. [‡]; Adams, C. P. [‡]; Tahmasebi Nick, S. [‡]; Ariyadasa, L. A. W. [‡]; Bolandi, A. [‡]; Ofoli, R. Y.; **Obare, S. O.**; 'Biofuels and High Value Added Chemicals from Biomass Using Sustainably Prepared Metallic and Bimetallic Nanoparticles,' Chapter 7 in *Sustainable Preparation of Metal Nanoparticles: Methods and Applications*. Editors: Dr. Rafael Luque and Dr. Rajendar Varma. **2013**, 157-189.

17. Han, C.; Pelaez, M.; Nadagouda, M. N.; **Obare, S. O.**; Falaras, P.; Dunlop, P. S. M.; Byrne, J. A.; Cho, H.; Dionysios, D. D. 'The Green Synthesis and Environmental Applications of Nanomaterials,' Chapter 5 In *Sustainable Preparation of Metal Nanoparticles: Methods and Applications*. Editors: Dr. Rafael Luque and Dr. Rajendar Varma. **2013**, 106-143.

18. Bolandi, A.[‡]; Tahmasebi Nick, S.[‡]; **Obare, S.O.** 'Nanoscale Materials for Organohalide Degradation via Reduction Pathways,' *Nanotechnology Rev*. **2012**, *1*, 147 – 172.

19. Brown, A.; Smith, K.; Samuels, T. A.[‡]; Lu, J.[◊]; **Obare, S.O.**; Scott, M.E. 'Nanoparticles Functionalized with Ampicillin Destroy Multiple-Antibiotic-Resistant Isolates of Pseudomonas aeruginosa and Enterobacter aerogenes and Methicillin-Resistant Staphylococcus aureus,' *Appl. Environ. Microbiol*. **2012**, *78*, 2768–2774.

20. Qi, W.; Luo, L.; Qian, H. –S.; Ouyang, G.; Nanda, K. K.; **Obare, S. O.** 'Core-Shell Nanostructures: Modeling, Fabrication, Properties, and Applications,' *J. Nanomater*. **2012**, 526923.

21. **Obare, S. O.**; Wabeke, J. T.[‡]; Liu, M.[‡] 'Nanostructured Materials for Catalytic Conversion of Biorenewables into Biofuels and Commodity Chemicals,' *Prep. Pap. Am. Chem. Soc., Div. Fuel Chem*. **2012**, *57(1)*, 484-485.

22. Lin, R.; Ma, X; **Obare, S. O.**; Ofoli, R. Y. 'Facile hydrogenation of carbon-carbon double bonds using catalytic noble nanoparticles immobilized in microfluidic reactors,' *Catal. Commun*. **2012**, *18*, 168-175.

23. **Obare, S. O.**; Lin, R.; Ofoli, R. Y. 'Nanostructured Materials for Catalytic Conversion of Biomass into Commodity Chemicals,' *Prep. Pap. Am. Chem. Soc., Div. Fuel Chem*. **2011**, *56(2)*, 121-124.

24. Baccar, H.[‡]; Mejri, M.B.; Adams, C.P.[‡]; Aouini, M.; **Obare, S.O.**; Abdelghani, A. 'Functionalized Gold Nanoparticles for Biosensor Applications,' *Sensor Lett*. **2011**, *9*, 2336-2338.

25. Kim, H. J.; Choi, S. W.; Lee, C. S.; Wielage, B.; Bae, A.; **Obare, S. O.**; Inyang, H. I. 'Oxidation of Toluene on γ-Al_2O_3 Supported Copper-Manganese Catalysts,' *Environ. Eng. Sci*. **2011**, *28*, 827-833.

26. Guo, W.[‡]; Engelmann, B. J.[§]; Haywood, T. J.[◊]; Blok, N. G.[§]; Beaudion, D. S.[§]; **Obare, S.O.** 'Dual Fluorescence and Electrochemical Detection of the Organophosphorus Pesticides - Ethion, Malathion and Fenthion,' *Talanta* **2011**, *87*, 276-283.

27. Samuels, T. A.[‡]; **Obare, S. O.** 'Advances in Analytical Methods for Organophosphorus Pesticide Detection,' in *Pesticides in the Modern World – Trends in Pesticides Analysis*. Stoytcheva, M. Editor. In Tech. **2011**, 93-142.

28. Ariyadasa, L. A. W.[‡]; **Obare, S. O.** 'Nanomaterials as a Means of Decontamination of Chemical and Biological Warfare Agents and Related Toxins,' in *Nanotechnology for Environmental Decontamination*. Ram, M. K. Editor. CRC Press. **2011,** 347-378.

29. Narakathu, B. B.; Guo, W.[‡]; **Obare, S. O.**; Atashbar, M. Z. 'Novel approach for detection of toxic organophosphorus compounds,' *Sens. Actuat*. B. **2011**, *158*, 69-74.

30. Narakathu, B. B.; Guo, W.[‡]; **Obare, S. O.**; Atashbar, M. Z. 'Detection of Picomolar Levels of Toxic Organophosphorus Compounds by Electrochemical and Fluorescence Spectroscopy,' *Sensor Lett*. **2011**, *9*, 907-909.

31. Narakathu, B. B.; Guo, W.[‡]; **Obare, S. O.**; Atashbar, M. Z. 'Electrochemical Impedance Spectroscopy sensing of toxic organophosphorus compounds,' *IEEE Sensors* **2010**, 1518-1521.

32. Lin, R.; Freemantle, R. G.[‡]; Kelly, N.M. [§]; **Obare, S. O.**; Ofoli, R. Y. In-situ immobilization of palladium nanoparticles in microfluidic reactors and assessment of their catalytic reactivity *Nanotechnology* **2010**, *21*, 325605.

33. **Obare, S. O.**; De, C.[‡]; Guo, W.[‡]; Haywood, T. L.[◊]; Samuels, T. A.[‡]; Adams, C. P.[‡]; Masika, N. O.[§]; Murray, D. H.; Anderson, G. A.[§]; Campbell, K.; Fletcher, K. Fluorescent Chemosensors for Toxic Organophosphorus Pesticides: A Review,' *Sensors* **2010**, *10*, 7018 - 7043.

34. De, C. [‡]; Samuels, T. A. [‡]; Haywood, T. L. [◊]; Anderson, G. A. [§]; Campbell, K.; Fletcher, K.; Murray, D. H.; **Obare, S. O**. 'Dual Colorimetric and Electrochemical Sensing of Organothiophosphorus Pesticides by an Azastilbene Derivative,' *Tetrahedron Lett*. **2010**, *51*, 1754-1757.

35. Varaganti, S.; Gessesse, M.; **Obare, S. O.**; Ramakrishna, G.; 'Dynamics and Two photon absorption properties of chromophore functionalized semiconductor nanoparticles,' *Proc. SPIE* **2009**, *7413-09*, 741309/1-741309/12.

36. Major, K. J.[‡]; De, C.[‡]; **Obare, S. O.** 'Recent Advances in the Synthesis of Plasmonic Bimetallic Nanoparticles,' *Plasmonics* **2009***, 4*, 61-78.

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38. Freemantle, R. G.[‡]; Liu, M. [‡]; Guo, W.[‡]; **Obare, S. O.** 'Approaches to Synthesis and Characterization of Spherical & Anisotropic Palladium Nanomaterials,' in *Metallic Nanomaterials for Life Sciences*. Kumar, C. S. S. R., Editor; Wiley-VCH: *Weinheim*, **2009,** Volume 1, pp 305-355.

39. Beaudoin, D. S.[§]; **Obare, S. O**. 'Dual optical and electrochemical glucose detection based on a dipyridophenazine ligand,' *Tetrahedron Lett.* **2008**, 49, 6054-6057.

40. Guo, W. [‡]; Ciptadjaya, C. G. E. [‡]; Liu, M. [‡]; Simms, C. M. [§]; **Obare, S. O.** 'Modulating the Reactivity of Nanocrystalline TiO_2 for the Degradation of Organophosphorus Pesticides,' *J. Adv. Oxid. Technol*. **2008**, 11, 459-462.

41. Guo, W.[‡]; **Obare, S. O.** 'Tuning the reduction of 9,11,20,22-tetraaza-tetrapyridopentacene (TATPP),' *Tetrahedron Lett.* **2008**, *49*, 4933-4936.

42. Ganesan, M.; Freemantle, R.[‡]; **Obare, S. O.** 'Monodisperse Thioether Stabilized Palladium Nanoparticles: Synthesis, Characterization and Reactivity,' *Chem. Mater*. **2007**, *19*, 3464-3471.

43. Freemantle, R. G. [‡]; Guo, W. [‡]; Liu, M; **Obare, S. O.** 'One-Step Synthetic Procedures and Electrochemical Properties of Monodisperse 1-2 nm Metallic Nanoparticles,' *ECS Transactions*, **2007**, *6*, 93-99.

44. **Obare, S. O.** 'New Synthetic Approach Produces Monodisperse Palladium Nanoparticles,' *SPIE: Society of Optical Engineering* **2007**, DOI: 10.1117/2.1200702.0597. Available on the web only at: http://newsroom.spie.org/documents/Imported/0597/0597-2007-02-22.pdf.

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62. **Obare, S. O.**; Jana, N. R.; Murphy, C.J. "Preparation of Polystyrene and Silica-Coated Gold Nanorods and their use as Templates for the Synthesis of Hollow Nanotubes," *Nano Letters* **2001**, *1*, 601-603.

63. **Obare, S. O.**; Murphy, C. J. "Blue Emission from a HPBO-Li^+ Complex," *New J. Chem*. **2001**, *25*, 1600-1604.

EDITED BOOKS:
64. **Obare, S.O.;** Hyder, B. N.; Grunert, M. L. Western Michigan University General Chemistry I Laboratory Manual. Cengage Publishers, ISBN 130503161X. 2013.
65. **Obare, S. O.;** Luque, R. Green Technologies for the Environment. American Chemical Society Publishers. ISBN: 978-0-8412-3018-7. 2014.
66. Murray, D. H.; **Obare, S. O.**; Hageman, J. H. The Power and Promise of Early Research. American Chemical Society Publishers. ISBN 9780841231733 (paper) | ISBN 9780841231726 (ebook). 2016.

BOOKS (*in preparation*)
- Ram, M. K.; **Obare, S. O.** '**Nano-Inspired Biosensors for Improved Healthcare**.' CRC Press – Taylor and Francis Publishing Group (2016), ISBN: 978-1-4822-3527-2.

- **Obare, S.O.** '**Environmental Nanoscience: Implications of Anthropogenic Nanomaterials**.' De Gruyter Publishers (2016), ISBN: 978-3-1103-4234-5.

FUNDED EXTERNAL GRANTS
1. National Science Foundation, 'CAREER Rationally Assembled Nanoparticles for Multi-Electron Transfer Processes,' Role: PI, $509,972. 06/06 – 05/13.

2. National Science Foundation, 'International: Students summer research experience in Brazil,' Role; Co-PI: $123,900. 06/07 – 06/11.

3. Michigan State University (through the Economic Development Corporation, 21st Century Job's Fund), 'Engineered Catalytic Nanoparticles for Aqueous Phase Transformations of Bio-based Materials,' Role: PI: Total: $306,250. 01/07 – 12/10.

4. National Institutes of Health (NIH), 'Michigan Bridges to the Baccalaureate,' Role: Co-PI: $576,589. 09/06 – 08/10.

5. Department of Defense, 'Chemical Warfare Agents,' Role: Subcontract to Obare: $200,000. 01/09 – 06/10.

6. National Science Foundation, 'Materials World Network: Rational Design of Metallic and Bimetallic Nanoparticles for Opto-Electrochemical Biosensing,' Role; PI; $210,000. 07/09 – 06/11.

7. Army Research Laboratory, 'Single Wavelength Detection of Toxic Contaminants,' Role: Subcontract to Obare: $150,000. 09/09 – 09/11.

8. National Science Foundation, 'Supplement to Materials World Network: Rational Design of Metallic and Bimetallic nanoparticles for Opto-Electrochemical Biosensing,' Role; PI; $40,000. 08/10 – 07/12.

9. Department of Education Graduate Assistance in Areas of National Need (GAANN) Program, 'Environmental Chemistry Doctoral Fellowship for Energy and the Environment: Graduate Research and Educational Training,' Role: Co-PI; $420,304. 09/09 – 08/12.

10. Army Research Laboratory, 'Developing Sensitive and Selective Nanosensors: A Single Molecule – Multiple Excitation Source Approach,' Role: Co-PI; $1,834,000. 09/09 – 09/11.

11. National Science Foundation, 'Two-Year Creativity Extension Supplement to Materials World Network: Rational Design of Metallic and Bimetallic Nanoparticles for Opto-Electrochemical Biosensing,' Role: PI; $290,000; 08/11 – 07/14.

12. National Institutes of Health (NIH), 'Michigan Bridges to the Baccalaureate,' Role: PI: $85,589. 03/10 – 08/10.

13. International Union of Pure and Applied Chemistry (IUPAC), 'Chemical Speciation of Nanomaterials in the Environment,' Role PI; $15,000; 08/15 – 7/18. (Current; administered by the National Academies: https://iupac.org/projects/project-details/?project_nr=2014-026-3-600)

14. International Union of Pure and Applied Chemistry (IUPAC), 'Environmental Chemistry - Development of Three Technical Symposia at the 46th IUPAC Congress, São Paulo 2017,' Role PI; $10,000; 03/17 – 2/19. (Current; administered by the National Academies: https://iupac.org/projects/project-details/?project_nr=2016-035-1-600)

15. International Union of Pure and Applied Chemistry (IUPAC), 'Analytical Chemistry of Nanomaterials - Critical Evaluation,' Role PI; $10,000; 05/17 – 4/19. (Current; administered by the National Academies: https://iupac.org/projects/project-details/?project_nr=2017-005-3-500)

INVITED TALKS

1. *West Virginia State University*. Institute, WV. 'Assessing the Environmental Impact of Anthropogenic Nanoparticles,' September 2017.

2. *254th National Meeting of the American Chemical Society*. Washington, DC. Challenges and opportunities in developing green chemistry research programs at academic institutions,' August 2017.

3. *46th World Chemistry Congress International Union of Pure and Applied Chemistry 2017*. Sao Paulo, Brazil. 'Assessing The Environmental Impact of Anthropogenic Nanoparticles,' July 2017.

4. *Advanced Oxidation Technologies Conference*. Atlanta, GA. 'Influence of Environmental Factors on the Toxicity of Anthropogenic Nanoparticles,' November 2016.

5. *252nd National Meeting of the American Chemical Society*. Philadelphia, PA. 'Chemical speciation of anthropogenic nanoparticles,' August 2016.

6. *Loma Linda University*, Loma Linda, CA. 'Tailored Nanoparticles for Advanced Environmental Processes,' March 2016.

7. *Michigan State University*, East Lansing, MI. Tailored Nanoparticles for Advanced Biomedical Applications,' March 2015.

8. *Andrews University, Berrien Springs, MI*. 'Environmental Influence of Engineered Iron Oxide Nanoparticles on Bacterial Growth in the Presence and Absence of *β*-Lactam Antibiotics,' February 2015.

9. 250th National Meeting of the American Chemical Society. 'Challenges and opportunities in green chemistry research academic institutions, Boston, MA. August 2015.

10. *Baylor University, Waco, TX*. 'Tailored Nanomaterials for Advanced Environmental Processes,' September 2014.

11. *Biennial Conference on Chemical Education (BCCE)*: 'Inspiring Community College Students into the Sciences through Early Research,' Grand Rapids, MI. August 2014.

12. 247th National Meeting of the American Chemical Society. 'Effective decontamination of microbial pathogens via hybrid nanoscale materials,' Dallas, TX. March 2014.

13. 247th National Meeting of the American Chemical Society. 'Nanoscale Science and the Environment,' Dallas, TX. March 2014.

14. The 19th International Conference on Advanced Oxidation technologies (AOTs-19). 'Decontamination of Microbial Pathogens via Hybrid Nanoscale Materials.' San Diego, CA. November 2013.

15. 246th National Meeting of the American Chemical Society. 'Assessment of the catalytic activity of metallic and bimetallic nanoparticles in glass capillary microreactors.' Indianapolis, IN. September 2013.

16. *44th World Chemistry Congress, International Union of Pure and Applied Chemistry (IUPAC)*. 'Transformation of Engineered Nanomaterials in the Environment,' Istanbul, Turkey. August 2013.

17. *Kalamazoo Section of the American Chemical Society – Boost Your Career Event*. 'Achieving Leadership in your Position,' Kalamazoo, MI. January 2013.

18. *University of Leipzig, Leipzig, Germany*. 'Synthesis, Characterization and Environmental Applications of Functionalized Nanoscale Materials,' December 2012.

19. *The 18th International Conference on Advanced Oxidation Technologies (AOTs-18)*. 'Development of Nanomaterials for Effective Decontamination of Microbial Pathogens via Oxidation Pathways,' Jacksonville, FL. November 2012.

20. *American Vacuum Society 59th International Symposium & Exhibition*. 'Transformation of Engineered Nanomaterials in the Environment: Effects of Size, Shape and Morphology on Nanomaterial Toxicity,' Tampa, FL. October 28th – November 2nd, 2012.

21. *Western Michigan University – Chemistry Graduate Student Association*. 'A Guide to Successful Proposal Development,' Kalamazoo, MI. September 2012.

22. *Western Michigan University Louis Stokes Alliance for Minority Participation Program*. Kalamazoo, MI. 'Success Strategies for Undergraduates in STEM Disciplines.' July 2012.

23. *244th National Meeting of the American Chemical Society.* 'Multi-electron transfer catalysts for conversion of biorenewables into commodity chemicals,' Philadelphia, PA. August 2012.

24. *Western Michigan University – Multicultural Student Healthcare Association Banquet* – Keynote Speaker. 'Achieving Success in the STEM Disciplines,' Kalamazoo, MI. April 2012.

25. *243rd National Meeting of the American Chemical Society.* **'**Interactions of well-defined nanomaterials with environmentally relevant microbial pathogens,' Division of Colloids and Surface Chemistry. San Diego, CA. March 2012.

26. *243rd National Meeting of the American Chemical Society*, *Division of Fuels.* **'**Nanostructured materials for catalytic conversion of biorenewables into biofuels and commodity chemicals,' San Diego, CA**.** March 2012.

27. *University of Michigan,* 5th Annual Michigan Louis Stokes Alliance for Minority Participation Keynote Address: 'Becoming a Master Student: Using Research Experiences.' Ann Arbor, MI. March 2012.

28. *Second Annual Nanoscale Science and Technology Conference,* 'Synthesis and Characterization of Well-defined Nanomaterials and their Biological and Environmental Applications,' *Hammamet, Tunisia.* March 2012.

29. *University of Nairobi,* 'Synthesis, Characterization and Environmental Applications of Nanomaterials,' Nairobi, Kenya. March 2012.

30. *The 17th International Conference on Advanced Oxidation Technologies (AOTs-17),* 'Nanoscale Materials for Conversion of Biorenewables to Commodity Chemicals.' San Diego, CA. November 2011.

31. *Imani School*, 8th Grade Commencement Keynote Address: The Road to Success. Houston, TX. May 2011.

32. *241st National Meeting of the American Chemical Society* 'International research experience initiative developed through a materials world network program,' Division of Chemical Education, Anaheim, CA. March 2011.

33. *241st National Meeting of the American Chemical Society* 'Facile synthesis of bimetallic nanostructures for catalytic production of commodity chemicals,' Division of Colloids and Surface Chemistry, Anaheim, CA. March 2011.

34. *BEYA STEM Conference*, 'Advancements in Nanoscale Science and Technology,' Washington, DC. February 2011.

35. *The 16th International Conference on Advanced Oxidation Technologies (AOTs-16),* 'Degradation of Persistent Organic Contaminants Using Functionalized Nanoscale Materials,' San Diego, CA. November 2010.

36. *Michigan State University*, 'Synthesis, Characterization and Environmental Applications of Metallic Nanoparticles,' East Lansing, MI. October 2010.

37. *University of Michigan*, AGEP Symposium, 'Nanoscale Science: Impacts on Society,' Ann Arbor, MI. April 2010.

38. *National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE)*, Science Teachers Workshop, 'Nanoscale Science in the Classroom,' Atlanta, GA. April 2010.

39. *National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE)*, Lloyd Ferguson Award Symposium, 'Tailored Nanoscale Materials for Energy and Environmental Remediation Applications,' ***Plenary Lecture***. Atlanta, GA. April 2010.

40. *National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE)*, Henry McBay Award Symposium, 'Preparing 21st Century Students for Success in Science and Engineering,' Atlanta, GA. April 2010.

41. *University of North Carolina at Wilmington*, 'Tailored Nanoscale Materials for Environmental Remediation Applications,' Wilmington, NC. February 2010.

42. *Kalamazoo College*, 'Tailored Nanoscale Materials for Environmental Remediation Applications,' Kalamazoo, MI. November 2009.

43. *The 15th International Conference on Advanced Oxidation Technologies (AOTs-15)*, 'Tailored Nanoscale Materials for Environmental Remediation Applications,' Niagara Falls, NY. October 2009.

44. Midwest Regional NOBCChE Conference, East Lansing, MI, George Washington Carver Excellence in Teaching Awards Symposium, Keynote Address, 'Guiding Students to Success in the 21st Century,' October 2009.

45. *University of Georgia*, 'Nanoscale Materials for Detection and Remediation of Environmental Contaminants,' Athens, GA. February 2009.

46. *Benedict College*, 'Nanoscale Materials for Detection and Remediation of Environmental Contaminants,' Columbia, SC. October 2008.

47. *University of Iowa*, 'Nanoscale Materials for Detection and Remediation of Environmental Contaminants,' Iowa City, IA. October 2008.

48. *North Carolina A&T University*, 'Nanoscale Materials for Detection and Remediation of Environmental Contaminants,' Greensboro NC. October 2008.

49. *The 14th International Conference on Advanced Oxidation Technologies (AOTs-14)*, 'Organic-Inorganic Hybrid Materials for Environmental Remediation,' San Diego, CA. September 2008

50. *213th Electrochemical Society Conference*, 'Catalytic Water-Splitting Using Biomolecule-Functionalized Semiconductor Nanoparticles,' Phoenix, AZ, May 2008.

51. *213th Electrochemical Society Conference*, 'Metallic Nanoparticles: Effect of Size on the Ability to Store Solar Energy,' Phoenix, AZ, May 2008.

52. *235th American Chemical Society National Meeting*, 'Educating and Exciting Middle School Students in Chemistry Through Materials Science,' New Orleans, LA. April 2008. ***Also presented at SCI-MIX session***

53. *235th American Chemical Society National Meeting,* 'Electron storage in metallic nanoparticles: Control of chemical charging and discharging,' New Orleans, LA. April 2008.

54. *1st Annual Workshop on Nanostructures and Nanomaterials*, 'Tuning the Size of Metallic Nanoparticles < 4 nm, and Their Roles in Environmental Remediation,' Tunis, Tunisia. March 2008.

55. *Bowling Green State University*, 'Tailored Nanomaterials for Optical Sensing and Catalytic Applications,' Bowling Green, OH. December 2007.

56. *Universidade Federal de São Carlos,* 'Rationally Organized Nanoscale Materials for Solar Energy Conversion,' São Carlos, Brazil, August 2007.

57. 8th International Green Chemistry Conference, 'Organophosphorus Pesticide Degradation by Novel Nanoscale Multi-Electron Transfer Catalysts,' Beijing, China. May 2007.

58. *Alpha Kappa Alpha Organization Teens Mentorship Program*, 'Nanotechnology: Small Stuff-Big Deal!' Kalamazoo, MI. April 2007

59. *233rd American Chemical Society National Meeting*, 'Organic-inorganic hybrid catalysts for environmental remediation (COLL),' Chicago, IL. March 2007

60. *233rd American Chemical Society National Meeting*, Chicago, IL, 'Synthesis and aqueous-phase chemical transformations of monodisperse metallic nanoparticles in the 1-4 nm size,' March 2007

61. *211th Meeting of the Electrochemical Society*, 'One-step synthetic procedures and electrochemical properties for monodisperse 1-2 nm metallic nanoparticles,' Electrochemical Society, Chicago, IL. May 2007.

62. *Western Michigan University*, Department of Communication (Science Reporting Class) "Nanotechnology: Small Stuff-Big Deal!" Kalamazoo, MI. November 2006.

63. *Indiana University,* 'Tailored Nanomaterials for Optical Sensing and Catalytic Applications,' Bloomington, IN, October 2006.

64. *Michigan State University*, 'Tailored Nanomaterials for Optical Sensing and Catalytic Applications,' East Lansing, MI, October 2006.

65. *Western Michigan University*, *Chemistry Graduate Student Association*, 'Ready, Set, Go! Playing the Game: What you didn't learn in the classroom,' Kalamazoo, MI, June 2006.

66. *New Life Fellowship Youth Organization*, 'How Science Will Shape the Future,' Kalamazoo, MI, June 2006.

67. *American Chemical Society, Kalamazoo Section*: High School Symposium, Kalamazoo, MI, 'Nanotechnology: The Big Deal Over Things So Small" Keynote Address. May 2006

68. *King-Chavez-Parks Program*, Annual Graduation Ceremony, Kalamazoo, MI, 'Success is by Choice,' Keynote Address. May 2006.

69. *Oakland University*, 'Tailored Nanomaterials for Optical Sensing and Catalytic Applications,' Rochester, MI, March 2006.

70. *University of Wisconsin at Oshkosh*, 'Tailored Nanomaterials for Optical Sensing and Catalytic Applications,' Oshkosh, WI. February 2006.

71. *Tuskegee University*, 'Tailored Nanomaterials for Optical Sensing and Catalytic Applications,' Tuskegee, AL. February 2006.

72. *St. Cloud State University*, 'Tailored Nanomaterials for Optical Sensing and Catalytic Applications,' St. Cloud, MN. November 2005

73. *Western Michigan University*, Bridges to the Baccalaureate Program, Keynote Address, 'Success is by Choice,' Kalamazoo, MI, June 2005.

74. *University of Toledo*, Department of Physics, Saturday Morning Physics Program: 'Nanotechnology: A big deal for something so small,' Toledo, OH. June 2005.

75. *American Chemical Society, Kalamazoo Section*: High School Symposium, 'Nanotechnology: A big deal for something so small,' Kalamazoo, MI. May 2005.

76. *University of Alabama*, 'Nanostructured materials for Optical Sensing and Environmental Remediation Applications,' Tuscaloosa, AL. February 2005.

77. *Andrews University,* 'Nanotechnology and the Environment,' Berrien Springs, MI. December 2004

78. *University of Toledo* 'Development of Novel Materials for Optical Sensing and Environmental Remediation Strategies,' Toledo, OH. October 2004

PRESENTATIONS AT NATIONAL AND REGIONAL CONFERENCES

(PRESENTER'S NAME IS UNDERDLINED)

[∫ = postdoctoral fellow; ‡ = graduate student; § = undergraduate student, ◊ = high school student]

1. Tahseen S. Saeed‡ and Sherine O. Obare. 'Reduction of organohalide compounds mediated by flavin mononucleotide at colloidal titanium dioxide interfaces,' 254th American Chemical Society National Meeting and Exposition. Washington, DC. August 2017. ***Selected for presentation at Sci-Mix***

2. Hazim Al-Zubaidi‡ and Sherine O. Obare. 'Green active and selective nanoscale catalysts for tandem hydrogenation and acetalization of carbonyls,' 254th American Chemical Society National Meeting and Exposition. Washington, DC. August 2017.

3. Hazim Al-Zubaidi‡ and Sherine O. Obare. 'Rationally designed nanoscale catalysts for green transformations to form commodity chemicals,' 254th American Chemical Society National Meeting and Exposition. Washington, DC. August 2017.

4. Niluka M. Dissanayake‡ and Sherine O. Obare. 'Elucidating mechanisms of toxicity of nanoparticles exposed to various environmental factors,' 254th American Chemical Society National Meeting and Exposition. Washington, DC. August 2017.

5. Sherine O. Obare. 'Chemical speciation of anthropogenic nanoparticles,' 253rd American Chemical Society National Meeting and Exposition. San Francisco, CA. April 2017. ***Selected for presentation at Sci-Mix***

6. Jaliya Arachchilage‡ and Sherine O. Obare. 'Conversion of carbon dioxide to formic acid mediated by light driven electron storage systems,' 253rd American Chemical Society National Meeting and Exposition. San Francisco, CA. April 2017. ***Selected for presentation at Sci-Mix***

7. Kelley M. Current‡, Niluka M. Dissanayake‡ and Sherine O. Obare. Influence of engineered nanoparticles on microorganism growth in the presence and absence of β-lactam antibiotics,' 253rd American Chemical Society National Meeting and Exposition. San Francisco, CA. April 2017. ***Selected for presentation at Sci-Mix***

8. Niluka M. Dissanayake‡, Kelley M. Current‡ and Sherine O. Obare. 'Influence of the engineered iron oxide nanoparticles on the growth and mutagenicity of microorganisms,' 253rd American Chemical Society National Meeting and Exposition. San Francisco, CA. April 2017. ***Selected for presentation at Sci-Mix***
9. Niluka M. Dissanayake‡ and Sherine O. Obare. Influence of organophosphorus pesticides on the stability of plasmonic nanoparticles in the presence of dissolved organic matter,' 253rd American Chemical Society National Meeting and Exposition. San Francisco, CA. April 2017. ***Selected for presentation at Sci-Mix***

10. Niluka M. Dissanayake‡, Kelley M. Current‡ and Sherine O. Obare. 'Influence of agricultural pesticides on nanoparticle stability,' 252nd American Chemical Society National Meeting and Exposition. Philadelphia, PA. August 2016.

11. Niluka M. Dissanayake‡, Kelley M. Current‡ and Sherine O. Obare. 'Influence of environmental factors on the mutagenic effects of iron oxide nanoparticles,' 252nd American Chemical Society National Meeting and Exposition. Philadelphia, PA. August 2016.

12. Hazim Al-Zubaidi‡ and Sherine O. Obare. 'Facile design of bimetallic nanoparticles for biomass conversion,' 251st American Chemical Society National Meeting and Exposition. San Diego, CA. March 2016.

13. Ruya R. Ozer, Hazim Al-Zubaidi‡ and Sherine O. Obare. 'Binary hierarchical systems for green chemistry processes,' 249th American Chemical Society National Meeting and Exposition. Denver, CO. March 2015.

14. Stephanie Santos§, and Sherine O. Obare. Multi-electron transfer process for the degradation of toxic organophosphorus contaminants. 249th American Chemical Society National Meeting and Exposition. ***Selected for presentation at Sci-Mix***
15. Jacinta Mutambuki‡, Herb Fyneweaver, William W. Cobern, Kevin A. Douglass‡ and Sherine O. Obare. 'Integrating nanotechnology into the undergraduate chemistry curriculum: The impact on students' affective domain.' American Chemical Society National Meeting and Exposition. Dallas, TX, March 2014.

16. Stephanie R. Santoz-Diaz§ and Sherine O. Obare. 'Green pathways toward the degradation of toxic agricultural pollutants,' American Chemical Society National Meeting and Exposition. Dallas, TX, March 2014. ***Selected for presentation at Sci-Mix***.

17. Sherine O. Obare, Setare Tahmasebi Nick‡ and Clara P. Adams‡. 'Green synthetic pathways for well-defined nanomaterials and their interactions with bacterial cells,' American Chemical Society National Meeting and Exposition. Dallas, TX, March 2014. ***Selected for presentation at Sci-Mix***.

18. Noah O. Masika[§] and **Sherine O. Obare**, 'Investigation of energy and charge transfer between well-defined semiconductor and metal nanoparticles,' 40th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers. Indianapolis, IN. October 2013.

19. Chartanay D. Bonner[‡] and **Sherine O. Obare**, 'Functionalization of Niobium Oxide Nanoparticles for the Degradation of Toxic Chemical and Biological Environmental Pollutants,' 40th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers. Indianapolis, IN. October 2013.

20. Clara P. Adams[‡] and **Sherine O. Obare**, 'Green synthetic pathways toward shape-controlled nanomaterials and their stability under various environmental conditions,' 246th American Chemical Society National Meeting. Indianapolis, IN. September 2013. ***Selected for presentation at Sci-Mix***

21. Liyana A. Wajira Ariyadasa[‡] and **Sherine O. Obare**. 'Sustainable preparation of size-dependent metal nanoparticles and their applications in energy harvesting applications,' 246th American Chemical Society National Meeting. Indianapolis, IN. September 2013. ***Selected for presentation at Sci-Mix***

22. Clara P. Adams[‡] and **Sherine O. Obare**, 'Shape-controlled nanoscale materials and their applications as biological sensors,' 246th American Chemical Society National Meeting. Indianapolis, IN. September 2013.

23. Noah O. Masika[§], Liyana A. Wajira Ariyadasa[‡], Carline Dugue[§], **Sherine O. Obare**, 'Investigation of energy and charge transfer between well-defined semiconductor and metal nanoparticles,' 246th American Chemical Society National Meeting. Indianapolis, IN. September 2013.

24. **Sherine O. Obare**, Noah O. Masika[§], Liyana A. Wajira Ariyadasa[‡], Clara P. Adams[‡] and Setare Tahmasebi Nick[‡], 'Stability of nanostructured materials designed for catalytic conversion of biorenewables into commodity chemicals,' 246th American Chemical Society National Meeting. Indianapolis, IN. September 2013.

25. Liyana A. Wajira Ariyadasa[‡] and **Sherine O. Obare**, 'Metallic nanoparticles for biorenewables conversion via hydrogenation and photocatalytic reactions,' 246th American Chemical Society National Meeting. Indianapolis, IN. September 2013.

26. Tayler Martin[◊], Jared T. Wabeke[‡] and **Sherine O. Obare**, 'Optical Sensors based on Dipyridophenazine Derivatives,' Third Annual Experiencing Research for Teaching Science Symposium. Western Michigan University. Kalamazoo, MI. August 2013.

27. **Sherine O. Obare**, Liyana A. Wajira Ariyadasa[‡] and Clara P. Adams[‡], 'Multi-electron transfer systems for solar energy storage,' Solar Energy for World Peace Conference. Istanbul, Turkey. August 2013.

28. Brooklynn R. Brown[§], Michael J. Fish[‡] and **Sherine O. Obare**, 'Exploring Antimicrobial Properties of Metal Nanoparticles,' Third Annual Experiencing Research for Teaching Science Symposium. Western Michigan University. Kalamazoo, MI. August 2013.

29. Liyana A. Wajira Ariyadasa[‡], Raoul Wadwa[◊] and **Sherine O. Obare**. 'Metal and metal oxide nanoparticles for biorenewable conversion via hydrogenation and photocatalytic reactions,' 245th American Chemical Society National Meeting. New Orleans, LA. April 7-11, 2013. ***Selected for presentation at Sci-Mix***.

30. Setare Tahmasebi Nick[‡] and **Sherine O. Obare**, 'Synthesis, catalytic properties, and immobilization of monodisperse bimetallic alloy nickel-based nanoparticles.' 245th American Chemical Society National Meeting. New Orleans, LA. April 7-11, 2013. ***Selected for presentation at Sci-Mix***.

31. Setare Tahmasebi Nick[‡] and **Sherine O. Obare**, 'Mechanistic studies on the growth of anisotropic metal nanoparticles,' 245th American Chemical Society National Meeting. New Orleans, LA. April 2013.

32. Ali Bolandi[‡] and **Sherine O. Obare**, 'Multi-electron transfer from charged semiconductor surfaces to quantized bimetallic nanoparticles,' 245th American Chemical Society National Meeting. New Orleans, LA. April 2013.

33. Carline Dugue[§], Liyana A. Wajira Ariyadasa[‡], **Sherine O. Obare**, 'Charge transfer size dependence between semiconductor quantum dots and quantized metal nanoparticles,' 245th American Chemical Society National Meeting. New Orleans, LA. April 2013.

34. Robert Y. Ofoli, Xianfeng Ma, Rui Lin and **Sherine O. Obare**, 'Nanocatalytic approach to the conversion of biorenewables,' 245th American Chemical Society National Meeting. New Orleans, LA. April 2013.

35. Carline Dugue[§], Liyana A. Wajira Ariyadasa[‡] and **Sherine O. Obare**, 'Studying the charge transfer size dependence between semiconductor quantum dots and quantized metal nanoparticles,' 2013 International Congress on Natural Sciences and Engineering. Taipei, Taiwan. January 2013.

36. Clara P. Adams[‡] and **Sherine O. Obare**. 'Strategies for green synthesis of shape-controlled nanoparticles,' 39th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) Annual Meeting. Washington, DC. September 2012.

37. Tova A. Samuels[‡] and **Sherine O. Obare**, 'Stabilization of metal nanoparticles by dissolved organic matter,' 39th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) Annual Meeting. Washington, DC. September 2012.

38. Noah O. Masika[§] and **Sherine O. Obare**, 'Nanostructured materials for catalytic conversion of biorenewables into commodity chemicals,' 39th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) Annual Meeting. Washington, DC. September 2012.

39. Carline Dugue′ and **Sherine O. Obare**, 'Charge transfer studies between Metal Nanoparticles and Quantum Dots,' 39th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) Annual Meeting. Washington, DC. September 2012.

40. Clara P. Adams[‡] and **Sherine O. Obare**, 'Green synthetic routes toward shape-controlled nanoscale materials,' 244th American Chemical Society National Meeting, Philadelphia, PA. August 2012.

41. Clara P. Adams[‡] and **Sherine O. Obare**, 'Chronoamperometric-based detection of hydrogen peroxide using palladium nanoparticles,' 244th American Chemical Society National Meeting, Philadelphia, PA. August 2012.

42. Tova A. Samuels[‡] and **Sherine O. Obare**, 'Comparing the Effects of Organophosphorus Induced Agglomeration on Metallic *vs*. Bimetallic Nanoparticles,' Materials Research Society Spring Meeting. San Francisco, CA. April 2012.

43. Quan L. Tran[§], Jared T. Wabeke[‡], Ryan M. Hoffmann[§], **Sherine O. Obare**, 'Development of a selective fluorescence sensor for the organophoshoprous pesticide, fenthion,' 243rd American Chemical Society National Meeting, San Diego, CA. March 2012.

44. Jared T. Wabeke[‡], Quan L. Tran[§], Ryan M. Hoffmann[§] and **Sherine O. Obare**, 'Selective optical sensors for the detection of organophosphorus pesticides.' 243rd American Chemical Society National Meeting, San Diego, CA. March 2012. *Selected for Presentation at Sci-Mix for the Division of Environmental Chemistry*.

45. Amr Ezzat Mahmoud, Carla Schmiesing, **Sherine Obare**, Pamela Hoppe, Maria Scott and Ekkehard Sinn, 'Synthesis and biological Evaluation of nimesulide derivatives as anti-breast cancer agents,' 243rd American Chemical Society National Meeting, San Diego, CA. March 2012.

46. **Sherine O. Obare**, Rui Lin and Robert Y. Ofoli, 'Nanostructured Materials for catalytic conversion of biomass into commodity chemicals,' 242nd American Chemical Society National Meeting, Denver, CO. September 2011.

47. **Sherine O. Obare**, 'Interactions of Persistent Organic Contaminants with Metallic and Semiconductor Nanomaterials,' Gordon Research Conference, Waterville, NH May 2011.

48. Rui Lin, Robert Y. Ofoli, **Sherine O. Obare**, 'Nanostructured Materials for Catalytic Conversion of Biorenewables into Commodity Chemicals,' 241st American Chemical Society National Meeting, Anaheim, CA. March 2011.

49. Xianfeng Ma, Rui Lin, Christopher Beuerl, Dennis Miller, James Jackson, **Sherine O. Obare**, Robert Y. Ofoli, 'Design and reactivity evaluation of activated carbon-supported Ruthenium nanoparticles for aqueous phase hydrogenation of pyruvic acid,' 241st American Chemical Society National Meeting, Anaheim, CA. March 2011.

50. Rui Lin, Xianfeng Ma, Ruel Freemantle‡, **Sherine O. Obare**, Robert Y Ofoli, 'Hydrogenation in microfluidic reactors using ruthenium nanoparticles,' 241st American Chemical Society National Meeting, Anaheim, CA. March 2011.

51. Liyana Wajira A Ariyadasa‡, **Sherine O. Obare**, 'Electrochemical characterization of metallic nanoparticles,' 241st American Chemical Society National Meeting, Anaheim, CA. March 2011.

52. Setare Tahmasebi Nick‡, Elizabeth L Bejcek§, Bruce E Bejcek, **Sherine O. Obare**, 'Surface modification of metallic nanoparticles for effective destruction of brain tumor cells,' 241st American Chemical Society National Meeting, Anaheim, CA. March 2011.

53. Daniel Bates§, Noah O. Masika§, **Sherine O. Obare**, 'Facile synthesis of monodisperse metallic nanoparticles and their interaction with quantum dots,' 241st American Chemical Society National Meeting, Anaheim, CA. March 2011.

54. Tova A. Samuels‡ and **Sherine O. Obare**, 'Using Nanoscale Materials to Overcome the Resistance of Antibiotics,' Annual AGEP Conference, University of Michigan, Ann Arbor, MI, April 2010.

55. Jully S. Senteu§ and **Sherine O. Obare**, 'Functionalized Nanoparticles For Remediation Of Organic Pollutants,' 37th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE), Atlanta, GA. April 2010.

56. Clara P. Adams‡ and **Sherine O. Obare**, Surface Functionalization of Gold Nanoparticles for Dual Optical and Electrochemical Detection of Pathogens,' 37th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE), Atlanta, GA. April 2010.

57. Obineche Nnebedum§, Qi N. Zhang§, Jeffrey A. Bartz and **Sherine O. Obare**, 'Controlling the Reactivity of Self-assembled Metalloporphyrin Monolayers at Metal Oxide Nanoparticle Interfaces,' 37th Annual Meeting

of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE), Atlanta, GA. April 2010.

58. Susmita Bandyopadhyay[‡] and **Sherine O. Obare**, 'Room temperature Synthetic Procedure for Palladium Nanocubes,' 239th American Chemical Society National Meeting, San Francisco, CA. March 2010.

59. Arnab K. Mukherjee[‡] and **Sherine O. Obare**, 'Synthesis, Characterization and Applications of Ruthenium Nanocubes,' 239th American Chemical Society National Meeting, San Francisco, CA. March 2010.

60. **Sherine O. Obare**, 'Fabrication of Metal Nanoparticles and their Role in Printing Applications,' Center for Advanced Printed Electronics, Western Michigan University, Kalamazoo, MI. November 2009.

61. Michael R. Perez[§] and **Sherine O. Obare**, 'Synthesis, Characterization and Cytotoxicity of Nickel Nanoparticles,' Annual Biomedical Research Conference for Minority Students (ABRCMS), Phoenix, AZ. November 2009.

62. Jully S. Senteu[§] and **Sherine O. Obare**, 'Functionalized Nanoscale Materials for Advanced Chemical Transformations,' Midwest Regional Conference of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, East Lansing, MI. October 2009.

63. Stacy Knight[‡], **Sherine O. Obare** and Daniel Rabinovich, 'Bis(thioether)silane complexes of silver(I): synthesis and structures of molecular precursors to nanomaterials,' 238th American Chemical Society National Meeting, Washington, DC. August 2009.

64. Rui Lin, **Sherine O. Obare** and Robert Ofoli, 'Hydrogenation in microfluidic reactors using catalytic nanoparticles,' 238th American Chemical Society National Meeting, Washington, DC. August 2009.

65. Kevin J. Major[‡] and **Sherine O. Obare**, 'Controlling charge storage in well-defined platinum nanoparticles,' 42nd International Union of Pure and Applied Chemistry (IUPAC) Congress, Glasgow, UK. August 2009.

66. **Sherine O. Obare**, 'Establishing Effective Summer Camp Programs in Nanoscale Science for High School Students,' 36th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE),' St. Louis, MO. April 2009.

67. Tova A. Samuels[‡] and **Sherine O. Obare**, 'Nanoparticle-Based Selective Colorimetric Sensor For Organophosphorus Pesticides,' 36th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers. (NOBCChE),' April 2009.

68. Kevin J. Major[‡] and **Sherine O. Obare**, Developing and Studying Nanoscale Catalysts for Production of Hydrogen Through Water Splitting, 5th International Hydrail Conference, Charlotte, NC. June 2009.

69. Kevin J. Major[‡] and **Sherine O. Obare**, 'Controlling charge storage in well-defined platinum nanoparticles,' 237th American Chemical Society National Meeting, Salt Lake City, UT. March 2009.

70. Tova A. Samuels[‡], Chandrima De[‡] and **Sherine O. Obare**, 'Engineered metallic and bimetallic nanoparticles for the detection of organophosphorus pesticides,' 237th American Chemical Society National Meeting, Salt Lake City, UT. March 2009.

71. Kaitlyn E. Crawford[§], Minghong Liu[‡] and **Sherine O. Obare**, 'Synthesis and electrochemical characterization of bimetallic nanoparticles,' 237th American Chemical Society National Meeting, Salt Lake City, UT. March 2009.

72. Ketan Pimparkar, Rui Lin, Robert Y. Ofoli, James E. Jackson, **Sherine O. Obare** and Dennis J. Miller, 'High Pressure Catalytic Hydrogenation of Acetone in a PDMS Based Recirculating Microreactor System,' American Institute of Chemical Engineers (AIChE) 2008 Annual Meeting, Philadelphia, PA. November 2008.

73. **Sherine O. Obare**, 'Rational Selection and Synthesis of Organic Ligands for Anisotropic Metallic Nanoparticles,' 236th American Chemical Society National Meeting, Philadelphia, PA, August 2008

74. Kausik Mukhopadhyay[ʃ] and **Sherine O. Obare**, 'Novel Ligand Design for Size-Controlled Metallic and Bimetallic Nanoparticles,' 236th American Chemical Society National Meeting, Philadelphia, PA, August 2008

75. Minghong Liu[‡] and **Sherine O. Obare**, 'Synthesis and Characterization of Biofunctionalized Inorganic Nanowires for Selective Interaction with Biological Cells,' 236th American Chemical Society National Meeting, Philadelphia, PA, August 2008

76. Wen Guo[‡] and **Sherine O. Obare**, 'Influence of particle size on the charge storage behavior of palladium nanoparticles,' 235th American Chemical Society National Meeting, New Orleans, LA, April 2008.

77. Chandrima De[‡], Desmond H. Murray and **Sherine O. Obare**, 'Advances in dual colorimetric and electrochemical sensors for organophosphorus pesticides,' 235th American Chemical Society National Meeting, New Orleans, LA, April 2008. ***Also presented at SCI-MIX session***

78. Zachary D. Denkins[§], Wen Guo[‡] and **Sherine O. Obare**, 'Photochemical control of the reactivity of tetraaza-tetrapyridopentacene toward the activation of small molecules: An experimental and computational study,' 235th American Chemical Society National Meeting, New Orleans, LA, April 2008. ***Also presented at SCI-MIX session***

79. Nicholas M. Kelly[§], Ruel G. Freemantle[‡], Jeffrey A. Bartz, and **Sherine O. Obare**, 'Size-control of biotin stabilized metal nanoparticles,' 235th American Chemical Society National Meeting, New Orleans, LA, April 2008.

80. Kaitlyn E. Crawford[§] and **Sherine O. Obare**, 'One-step approach toward well-defined bimetallic nanoparticles,' 235th American Chemical Society National Meeting, New Orleans, LA, April 2008.

81. **Sherine O. Obare**, Ruel G. Freemantle[‡] and Tova A. Samuels[‡], 'Exciting Middle and High School Students in Chemistry via Advances in Materials Science,' National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Philadelphia, PA, March 2008.

82. Ruel G. Freemantle[‡] and **Sherine O. Obare**, 'New Approaches for Size- and Shape-Controlled Ruthenium Nanoparticles,' National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Philadelphia, PA, March 2008.

83. Tova A. Samuels[‡] and **Sherine O. Obare**, 'Optical Sensors for the Selective Detection of Organophosphorus Pesticides,' National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Philadelphia, PA, March 2008

84. Marshal A. James[◊] and **Sherine O. Obare**, 'Degradation of PCBs Using Functionalized TiO_2,' 34th Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers Science Fair, Orlando, FL, March 2007

85. Ruel G. Freemantle[‡] and **Sherine O. Obare**, 'New Approach for Size- and Shape-Controlled Fabrication of Ruthenium Nanoparticles,' South East Regional Meeting of the American Chemical Society, Greenville, SC. October 2007.

86. Chandrima De[‡] and **Sherine O. Obare**, 'One-Step Photochemical Synthetic Procedure toward Monodisperse Metal Nanoparticles,' South East Regional Meeting of the American Chemical Society, Greenville, SC. October 2007.

87. Mycia Cox[‡], Christopher G. E. Ciptadjaya[‡], Marshal James[◊] and **Sherine O. Obare**, 'Rational Organization of Nanoscale Catalysts for Hydrogen Production,' South East Regional Meeting of the American Chemical Society, Greenville, SC. October 2007.

88. Ruel G. Freemantle[‡], Lissette I. Lozano-Lewis, Daniel Rabinovich and **Sherine O. Obare**. 'Size- and Shape-Controlled Fabrication of Palladium Nanoparticles Using Novel Organometallic Precursors,' South East Regional Meeting of the American Chemical Society, Greenville, SC. October 2007.

89. Minghong Liu[‡], Ruel G. Freemantle[‡] and **Sherine O. Obare**, 'Electrochemical Characterization of Catalytic Metal Nanoparticles,' South East Regional Meeting of the American Chemical Society, Greenville, SC. October 2007.

90. Kausik Mukhopadhyay[∫] and **Sherine O. Obare**, 'New Ligands for Size-Control of Magnetic Nanoparticles,' South East Regional Meeting of the American Chemical Society, Greenville, SC. October 2007.

91. Chandrima De[‡], Ginger Anderson[§], Desmond H. Murray and **Sherine O. Obare**, 'Selective Colorimetric and Electrochemical Detection of Organophosphorus Pesticides,' South East Regional Meeting of the American Chemical Society, Greenville, SC. October 2007.

92. Wen Guo[‡] and **Sherine O. Obare**, 'Tuning the Properties of Organic Molecules for Small Molecule Activation,' South East Regional Meeting of the American Chemical Society, Greenville, SC. October 2007.

93. Minghong Liu[‡], Ruel G. Freemantle[‡] and **Sherine O. Obare**, 'Monodisperse 1-2 nm Metallic Nanoclusters: Synthesis and Electrochemical Properties,' Electrochemical Society Conference, Washington, D. C. October 2007

94. Wen Guo[‡] and **Sherine O. Obare**, 'Nanoscale multi-electron transfer catalysts for organophosphorus pesticide degradation,' 234th American Chemical Society National Meeting, Boston, MA. August 2007.

95. **Sherine O. Obare**, 'Nanoscale Science: A tool to excite middle school students in chemistry,' National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Orlando, FL, April 2007

96. Ruel Freemantle[‡] and **Sherine O. Obare**, 'Aqueous-phase chemical transformations of sub 4 nm metallic nanoparticles,' National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Orlando, FL, April 2007.

97. Ruel Freemantle[‡] and **Sherine O. Obare**, 'Monodisperse thioether-stabilized palladium nanoparticles: synthesis, characterization and catalytic activity,' National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Orlando, FL, April 2007.

98. Tajay Haywood[◊] and **Sherine O. Obare**, 'Fluorescence-based pesticide detection,' National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Orlando, FL, April 2007

99. **Sherine O. Obare**, 'Nanoscale Science: A tool to excite middle school students in chemistry (CHED),' 233rd American Chemical Society National Meeting, Chicago, IL, March 2007.

100. Tajay Haywood[◊], Brigitte J. Engelmann[§], Daniel S. Beaudoin[§], Wen Guo[‡] and **Sherine O. Obare**, Fluorescence-based organophosphorus pesticide detection (ENVR),' 233rd American Chemical Society National Meeting, Chicago, IL, March 2007. ***Also presented at SCI-MIX session***

101. Christopher G. E. Ciptadjaya[‡] and **Sherine O. Obare**, Rational organization of nanoscale catalysts for advanced chemical transformations (INOR). 233rd American Chemical Society National Meeting, Chicago, IL, March 2007.

102. Kate C. Shaw[§] and **Sherine O. Obare**, 'Factors affecting the reactivities of ferrous porphyrins,' (INOR) 233rd American Chemical Society National Meeting, Chicago, IL, March 2007.

103. Wen Guo[‡] and **Sherine O. Obare**, 'Photochemistry of tetraaza-tetrapyridopentacene and related compounds,' 233rd American Chemical Society National Meeting, Chicago, IL, March 2007.

104. Chandrima De[‡] and **Sherine O. Obare**, 'Novel ligands for structural control of photogenerated nanoscale materials,' 233rd American Chemical Society National Meeting, Chicago, IL, March 2007. ***Also presented at SCI-MIX session***

105. Amanda M. Leonard[‡] and **Sherine O. Obare**, 'Self-assembled porphyrin monolayers at metal and metal oxide nanoparticle interfaces,' 233rd American Chemical Society National Meeting, Chicago, IL, March 2007.

106. Brigitte J. Engelmann[§] and **Sherine O. Obare**, 'Design and synthesis of electro-optical sensors that distinguish between organophosphorus pesticides and chemical warfare agent mimics,' 233rd American Chemical Society National Meeting, Chicago, IL, March 2007.

107. Brigitte J. Engelmann[§], TaJay Haywood[◊], Daniel S. Beaudoin[§] and **Sherine O. Obare**, 'Highly selective sensors designed to distinguish between organophosphorus agents', 41st Midwest Regional Meeting (MWRM) of the American Chemical Society, Quincy, IL, October 2006. ***Also presented at SCI-MIX session***

108. Wen Guo[‡] and **Sherine O. Obare**. 'Photochemistry of tetraaza-tetrapyridopentacene and related compounds', 41st Midwest Regional Meeting (MWRM) of the American Chemical Society, Quincy, IL, October 2006.

109. Christopher G. E. Ciptadjaya[‡] and **Sherine O. Obare**. 'Riboflavin functionalized titanium dioxide nanoparticles: Characterization, properties and reactivity,' 41st Midwest Regional Meeting (MWRM) of the American Chemical Society, Quincy, IL, October 2006.

110. Tajay Haywood[◊] and **Sherine O. Obare**. 'Selective detection of organophosphorus-based pesticides and chemical warfare agent mimics', 2006 Midwest Regional Conference of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Ann Arbor, MI, October 2006.

111. Christopher G. E. Ciptadjaya[‡], Jayni M. Angeli[§] and **Sherine O. Obare**. Synthesis, characterization and self-assembly of magnetic nanotube-biomolecule hybrid systems', 2006 Midwest Regional Conference of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Ann Arbor, MI, October 2006.

112. **Sherine O. Obare**. Metal-semiconductor nanocomposites for multi-electron transfer processes', 2006 Midwest Regional Conference of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Ann Arbor, MI, October 2006.

113. **Sherine O. Obare**, Christopher G. E. Ciptadjaya[‡] and Jayni M. Angeli[§]. 'Rational Organization of Multiple Catalysts for Advanced Chemical Transformations,' 232nd American Chemical Society National Meeting, San Francisco, CA, September 2006.

114. Ganesan Mani[∫] and **Sherine O. Obare**. 'Novel Ligands for One-Step Synthesis of Monodisperse Nanoscale Metallic Catalysts,' 232nd American Chemical Society National Meeting', San Francisco, CA, September 2006.

115. Brigitte J. Engelmann[§] and **Sherine O. Obare**. 'Sensors designed to distinguish between organophosphorus agents' 232nd American Chemical Society National Meeting, San Francisco, CA, September 2006.

116. **Sherine O. Obare**, Kate Shaw[§], Catherine M. Simms[§] and Jayni M. Angeli[§]. 'Spectroscopy and Electrochemistry of Functionalized Semiconductor Nanoparticle Surfaces for Multi-electron Processes', National Organization of Black Chemists and Chemical Engineers (NOBCChE), **April 2006**.

117. Catherine M. Simms[§] and **Sherine O. Obare**, 'Combining the Reactivities of Metalloporphyrins and Semiconductor Nanoparticles: Investigation of Catalytic Activity Toward Organohalide Pollutants', Annual Biomedical Research Conference for Minority Students (ABRCMS), Atlanta, GA., **October 2005**.

118. **Sherine O. Obare**, 'Semiconductor-metal nanocomposites for multielectron transfer reactions', 230th American Chemical Society National meeting, Washington, D.C., **August 2005**.

119. Daniel S. Beaudoin[§] and **Sherine O. Obare**. 'Nanoparticle-based glucose detection', 230th American Chemical Society National Meeting, Washington D.C. **August 2005**.

120. Jayni M. Angeli[§], Christopher G. E. Ciptadjaya[‡] and **Sherine O. Obare**. 'Synthesis, characterization and self-assembly of magnetic nanotube-biomolecule hybrid systems', 230th American Chemical Society National Meeting, Washington D.C. **August 2005**.

121. Brigitte Engelmann[§], Desmond H. Murray and **Sherine O. Obare**, 'Simultaneous detection and degradation of organophosphates', 230th Meeting of the American Chemical Society, Washington D.C. **August 2005**.

122. Tamae Ito, **Sherine O. Obare**, Gerald J. Meyer. 'Mechanistic studies of molecular catalysts on TiO_2 for organohalide remediation,' 230th American Chemical Society National Meeting, Washington D.C. **August 2005**.

123. Tamae Ito, **Sherine O. Obare**, and Gerald J. Meyer. 'Tuning catalyst reduction potentials for organohalides reactivity,' 2nd International Conference on Green and Sustainable Chemistry and 9th Annual Green Chemistry and Engineering Conference, Washington, D.C., **June 2005**.

124. Joshua D. Wnuk, **Sherine O. Obare**, and Gerald J. Meyer. 'Evidence for Multi-electron reduction of organic halides with iron porphyrins anchored to nanocrystalline TiO_2 thin films,' 2nd International Conference on Green and Sustainable Chemistry and 9th Annual Green Chemistry and Engineering Conference Washington, D.C., **June 2005**.

125. **Sherine O. Obare** and Gerald J. Meyer. 'Organohalide remediation by hemes anchored to nanocrystalline titanium dioxide,' 227th National Meeting of the American Chemical Society, Anaheim, CA. **March 2004**.

126. **Sherine O. Obare** and Gerald J. Meyer "Organic Halide Photoremediation Using Iron Porphyrins Supported on Nanocrystalline TiO_2" 226th National Meeting of the American Chemical Society, Environmental Chemistry Division, New York, NY **September 2003**.

127. **Sherine O. Obare** and Gerald J. Meyer "Organic Halide Photoremediation Using Iron Porphyrins Supported on Nanocrystalline TiO_2" 226th National Meeting of the American Chemical Society, Sci-Mix, New York, NY **September 2003**.

128. **Sherine O. Obare**, Nikhil R. Jana, and Catherine J. Murphy. "Preparation of Silica- and Polystyrene-Coated Gold Nanorods and their Use as Templates for the Synthesis of Hollow Nanotubes" South East Association of Analytical Chemists (SEACC). Columbia, SC, **November 2001**.

129. **Sherine O. Obare**, Nikhil R. Jana, and Catherine J. Murphy. "Preparation of Polymer-Coated Gold Nanorods and their Use as Templates for the Synthesis of Hollow Nanocapsules and Nanotubes" South East Regional Meeting of the American Chemical Society. Savannah, GA, **September 2001**.

130. **Sherine O. Obare,** Wei, Qin, S. M. Angel, and Catherine J. Murphy. "The First Fluorescent Fiber-Optic Lithium Ion Sensor," South Carolina Academy of Science, Conway, SC, **April 2001**.

131. **Sherine O. Obare** and Catherine J. Murphy. "Novel Fluorescent Lithium Ion Sensors," 221st ACS National Meeting, San Diego, CA, **April 2001**.

132. **Sherine O. Obare** and Catherine J. Murphy. "Development of Chromogenic Receptors for Lithium Ion Sensing," 219th ACS National Meeting, San Francisco, CA, **March 2000**.

133. **Sherine O. Obare**, Ronald A. DiFelice, and John, G. Dillard. "Investigation and Optimization of the Plasma Polymerization of Acetylene Films on the Surface of Ti-6Al-4V for Enhanced Bond Performance," 10th Annual Summer Undergraduate Research Symposium. Virginia Polytechnic Institute and State University, Blacksburg, VA, **July 1998**.

TEACHING EXPERIENCE

- General Chemistry I (Undergraduate Course)
- General Chemistry I Laboratory (Undergraduate Course)
- Nanotechnology (Graduate course)
- Instrumental Methods (Graduate/Undergraduate Course)
- Instrumental Methods Laboratory (Graduate/Undergraduate Course)
- Advanced Inorganic Chemistry (Graduate/Undergraduate Course)
- Chemical Synthesis (Undergraduate Course)

- Graduate Seminar (Graduate Course)
- Freshman Seminar (Undergraduate Course)

GRADUATE THESES SUPERVISED

2007 Christopher G. E. Ciptadjaya, M.S. "Design of multi-electron catalysts for the degradation of trichloroethylene." Western Michigan University

2008 Chandrima De, M.S. "Design of Optical and Electrochemical Molecular Sensors and Nanoscale Materials for the Detection of Organophosphorus Pesticides." Western Michigan University

2009 Ruel G. Freemantle, M.S. "Synthesis and Characterization of Metallic Nanoparticles and their Catalytic Activity." Western Michigan University

2010 Wen Guo, Ph.D. "Developing Molecular and Nanoscale Materials for Environmental Chemistry Processes." Western Michigan University

2010 Minghong Liu, Ph.D. "Isotropic and Anisotropic Metallic and Bimetallic Nanoparticles and their Potential Applications in Biology." Western Michigan University

2012 Tova A. Samuels, Ph.D. "Interactions of Nanoscale Materials with Environmental Pollutants." Western Michigan University

2014 Clara P. Adams, Ph.D. "Synthesis, Characterization and Potential Applications of Palladium and Ruthenium Nanostructures." Western Michigan University

2014 Liyana A. Wajira Ariyadasa, Ph.D. "Size-Dependent Interactions of Metal Nanoparticles with Fluorophores and Semiconductors." Western Michigan University

2014 Setare Tahmasebi Nick, Ph.D. "Synthesis, Characterization, and Environmental Studies of Nickel Nanoparticles." Western Michigan University

2015 Ali Bolandi, Ph.D. "Assessment and comparison of the electronic properties of group 10 bimetallic nanoparticles relative to their monometallic counterparts." Western Michigan University

RESEARCH ASSOCIATES

Postdoctoral Fellows

Dr. Mani Ganesan	08/04 – 07/06	
Dr. Kausik Mukhopadhyay	05/07 – 09/09	

Graduate Students Advised

Wen Guo	05/05 – 05/10	Ph.D. in Chemistry (WMU)
Christopher G. E. Ciptadjaya	05/05 – 12/07	M.S. in Chemistry (WMU)
Chandrima De	05/06 – 07/08	M.S. in Chemistry (WMU)
Ruel G. Freemantle	09/06 – 12/09	M.S. in Chemistry (WMU)
Minghong Liu	01/07 – 07/10	Ph.D. in Chemistry (WMU)
Tova A. Samuels	10/07 – 06/12	Ph.D. in Chemistry (WMU)
Clara P. Adams	09/09 – 04/14	Ph.D. in Chemistry (WMU)
Wajira Ariyadasa	01/10 – 04/14	Ph.D. in Chemistry (WMU)
Setare Tahmesabi Nick	01/10 – 12/14	Ph.D. in Chemistry (WMU)
Ali Bolandi	01/11 – 12/15	Ph.D. in Chemistry (WMU)
Jared T. Wabeke	05/11 – present	
Michael J. Fish	09/12 – present	
Chartanay D. Bonner	10/12 – present	
Niluka Dissanayake	01/13 – present	
Hazim Al Zubaidi	05/13 – present	
Kelley M. Current	07/14 – present	
Jaliya Samarakoon	05/15 – present	
Tahseen Saeed	05/15 – present	
Sarah Al-Balawi	05/15 – present	

Undergraduate Students Advised

Jayni M. Angeli	02/05 – 04/07	
Brigitte J. Engelmann	03/05 – 04/07	
Daniel S. Beaudoin	05/05 – 12/06	
Catherine M. Simms	05/05 – 05/07	(KVCC, NIH Bridges Student)
William J. Males	05/05 – 09/05	(KVCC, NIH Bridges Student)
Kate C. Shaw	09/05 – 08/07	
April E. Sutton	01/06 – 08/06	
John F. Beck	07/06 – 08/06	
Nicholas Kelly	06/07 – 08/07, 06/08 – 08/08	(Kalamazoo College Student)
Zachary Denkins	06/07 – 08/07, 06/08 – 08/08	(Kalamazoo College Student)
Jane Kim	06/07 – 08/07	(Kalamazoo College Student)
Ginger Anderson	06/07 – 08/07	(University of Michigan Student)
Kaitlyn Crawford	08/07 – 06/09	
Marion Clark	01/08 – 05/09	
Christopher Zarour	01/08 – 06/09	
Garba Djibo	05/08 – 12/08	
Jully S. Senteu	05/09 – 04/11	
Michael R. Perez	05/09 – 08/11	(KVCC, NIH Bridges Student)
Sandrine Zilikane	06/09 – 09/09	(Kalamazoo College Student)
Nicholas Roe	06/09 – 09/09	(Kalamazoo College Student)
Qi Zhang	06/09 – 09/09	(Kalamazoo College Student)
Obeniche Nnebedum	06/09 – 09/09	(Kalamazoo College Student)
Noah O. Masika	01/10 – 05/14	

Alisha N. Smith	01/10 – 12/10	
Neil B. Blok	01/10 – 06/10	
Daniel Bates	06/10 – 08/10	(Elon College Student, REU Student)
Elizabeth Bejcek	06/10 – 08/10	(Purdue University Student)
Quan Trung	06/11 – 08/11	(Emory University Student)
Ryan Hoffmann	06/11 – 08/11	(Kalamazoo College Student)
Nicholas Kapolka	01/12 – 12/13	
Michael J. Fish	01/12 – 08/12	
Max A. Schaefer	02/12 – 05/13	
Carline Dugue	06/12 – 09/12	(Kalamazoo College Student)
Benjamin Dueweke	06/12 – 09/12	(Kalamazoo College Student)
Christopher Bejcek	06/12 – 09/12	(Michigan State University Student)
Scarlet R. Davis	09/12 – 05/15	
Stephanie Santos-Diaz	06/13 – 08/13	(University of Puerto Rico, REU student)
	06/14 – 08/14	(University of Puerto Rico, REU student)
Brooklynn R. Brown	06/13 – 08/13	(WMU HHMI Student)
Kaylah Turner	07/13 – 08/13	
Dyamond Allen	10/13 – 12/13	
Richa Shah	10/13 – 04/14	
Victoria Allard	01/14 – 04/14	
Myles E. Truss	06/14 – 08/14	(Kalamazoo College Student)
Mackenzie Ritsema	06/14 – 08/14	(WMU HHMI Student)
Maryam Kok	06/14 – 05/17	(WMU Honors College Student)
Fayth Moore	07/15 – 08/16	WMU REU Student)
Latrinna S. Young	01/16 – 05/16	
Hector Gonzalez Avalo	01/16 – 05/16	
Mantar Singh	06/16 – 12/16	(Kalamazoo College Student)
Siani Johnson	06/16 – 12/16	(Kalamazoo College Student)
Nathan Browning	03/17 – present	

High School Students

TaJay L. Haywood	06/06 – 08/07
Marshal A. James	06/06 – 08/07
Neha Gupta	06/06 – 09/06, 01/07 – 04/07
Mi-chele' Johnson	06/08 – 08/08
Desiree Winfield	06/09 – 08/09
Traci N. Burton	06/09 – 08/09
Jerry Harris	06/09 – 08/09
Jiangrui (Richard) Lu	06/09 – 08/09
Amarachi Nnebedum	06/11 – 08/11
Raoul Wadwa	01/12 – 08/13
Tayler Martin	06/12 – 08/12, 06/13 – 08/13
Siani Johnson	01/13 – 08/13
Matthew Krinock	10/14 – 04/15

PROFESSIONAL SERVICE

1. **Associate Editor**, *Journal of Nanomaterials*, 2008 – present.
2. **Guest Editor,** *Journal of Nanomaterials,* 'Core-Shell Nanostructures: Modeling, Fabrication, Properties, and Applications.' 2012
3. **Guest Editor,** *International Journal of Nanotechnology*, Special Issue of the Humboldt Kolleg on "Nanoscale Science and Technology" Tunisia 2013.

4. **Symposium co-Organizer:** "Nanoscale Science and Technology" sponsored by the Humboldt Kolleg and held in Hammamet, Tunisia March 2012.
5. **Symposium Organize**r: International Union of Pure and Applied Chemistry World Congress. Sao Paulo, Brazil. July 2017
6. **Participant and Discussion co-Leader**: NSF-Sponsored Workshop on Nanomaterials and the Environment: The Chemistry and Materials Perspective. Arlington, Virginia, June 2011.
7. **National Science Foundation**
    a. Panel Reviewer, Division of Chemistry, February 2017
    b. Panel Reviewer, Division of Materials Research CAREER panel, October 2016
    c. Panel Reviewer, Division of Materials Research, EPSCoR panel, October 2016
    d. Committee of Visitors, Division of Materials Research, September 2015
    e. Panel Reviewer, Division of Chemistry, February 2015
    f. Panel Reviewer, Division of Materials Research, February 2015
    g. Panel Reviewer, Division of Materials Research, October 2014
    h. Panel Reviewer, Division of Chemistry, February 2014
    i. Panel Reviewer, Division of Materials Research CAREER panel, October 2013
    j. Panel Reviewer, Division of CBET, February 2013
    k. Panel Reviewer, Division of Materials Research, February 2013
    l. Panel Reviewer, Division of Chemistry, October 2012
    m. Panel Reviewer, Division of Chemistry, April 2012
    n. Panel Reviewer, Division of Chemistry, October 2011
    o. Panel Reviewer, Division of Materials Research CAREER panel, October 2010
    p. Panel Reviewer, Division of Materials Research REU panel, January 2010
    q. Panel Reviewer, Division of Materials Research CAREER panel, October 2009
    r. Panel Reviewer, Physical Chemistry CAREER panel, October 2008
    s. Panel Reviewer, Major Research Instrumentation, May 2008
    t. Site Reviewer - Nanoscience and Engineering Center (NSEC) for the National Science Foundation (NSF), June 11-13, 2007.
    u. Panel Reviewer, Division of Bioengineering and Environmental Systems, March 2006
    v. Panel Reviewer, Division of Chemistry, September 2006

8. **United States Environmental Protection Agency**
    a. Panel Reviewer, Small Business Innovation Research (SBIR) proposals, 2008, 2009 2010.
    b. Panel Reviewer, Planet, People, Prosperity (P3), 2010, 2011.
    c. Panel Reviewer, STAR Proposals, 2010, 2012, 2013.

9. **Electrochemical Society**
    a. Symposium Co-Chair, 'Metallic and Semiconducting Nanoparticles for Energy Conversion,' Electrochemical Society Conference, Phoenix, AZ, May 18 – 22, 2008.
    b. Symposium Co-Chair, 'Electrodeposition/Energy Technology 'Young Investigators Symposium,' Electrochemical Society Conference, Phoenix, AZ, May 18 – 22, 2008.
    c. Symposium Co-Chair, '*Metals and Semiconductors*,' Electrochemical Society Conference, Chicago, IL. May 6-11, 2007.

10. **National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE)**
    a. Elected Executive Board Member, 2010 – 2013.
    b. Chair, National NOBCChE Science Bowl and Science Fair, 2007-2013
    c. Secondary Education Committee Member/ Secondary Education Conference Planner, 2007 – 2013.

d. Technical Sessions Conference Symposium Organizer for the 2006 Midwest Regional Conference of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers. Ann Arbor, MI. October 12-14, 2006.

11. **American Chemical Society**
    a. Symposium co-Organizer, '*Science and Perception of Climate Change*,' 254th National Meeting of the American Chemical Society, Division of Environmental Chemistry. Washington, DC. August 2017.
    b. Symposium co-Organizer, '*Green Chemistry and the Environment*,' 254th National Meeting of the American Chemical Society, Division of Environmental Chemistry. Washington, DC. August 2017.
    c. Symposium co-Organizer, '*Green Chemistry and the Environment*,' 253rd National Meeting of the American Chemical Society, Division of Environmental Chemistry. San Francisco, CA. April 2017.
    d. Symposium co-Organizer, '*Science and Perception of Climate Change*,' 253rd National Meeting of the American Chemical Society, Division of Environmental Chemistry. San Francisco, CA. April 2017.
    e. Symposium co-Organizer, '*ACS Award for Creative Advances in Environmental Science & Technology: Symposium in honor of Dr. Douglas R. Worsnop*.' 253rd National Meeting of the American Chemical Society, Division of Environmental Chemistry. San Francisco, CA. April 2017.
    f. Symposium co-Organizer, '*Green Chemistry Adoption: Progressive Changes by Different Industry Sectors*,' 253rd National Meeting of the American Chemical Society, Division of Environmental Chemistry. San Francisco, CA. April 2017.
    g. Symposium co-Organizer, '*ACS-CEI Award for Incorporating Sustainability into Chemistry Education*', 253rd National Meeting of the American Chemical Society, Division of Environmental Chemistry. San Francisco, CA. April 2017.
    h. Symposium co-Organizer, '*Green Chemistry and the Environment*,' 250th National Meeting of the American Chemical Society, Division of Environmental Chemistry. Boston, MA. August 2015.
    i. Symposium co-Organizer, '*Green Chemistry and the Environment*,' 249th National Meeting of the American Chemical Society, Division of Environmental Chemistry. Denver, CO. March 2015.
    j. Symposium co-Organizer
    k. Symposium co-Organizer
    l. Symposium co-Organizer
    m. Symposium Organizer, '*Green Chemistry and the Environment*,' 246th National Meeting of the American Chemical Society, Division of Environmental Chemistry. Indianapolis, IN. September 8-12, 2013.
    n. Symposium Organizer, '*Green Chemistry and the Environment*,' 246th National Meeting of the American Chemical Society, Division of Environmental Chemistry. Indianapolis, IN. September 8-12, 2013.
    o. Symposium Organizer, '*Green Chemistry and the Environment*,' 246th National Meeting of the American Chemical Society, Division of Environmental Chemistry. Indianapolis, IN. September 8-12, 2013.
    p. Symposium Organizer, '*Green Chemistry and the Environment*,' 246th National Meeting of the American Chemical Society, Division of Environmental Chemistry. Indianapolis, IN. September 8-12, 2013.
    q. Symposium Organizer, '*Green Chemistry fostered Advances for the production of chemicals and fuels,*' 245th National Meeting of the American Chemical Society, Division of Environmental Chemistry. New Orleans, LA. April 7 – 11, 2013.

r. Symposium Organizer, '*Green Chemistry and the Environment*,' 244th National Meeting of the American Chemical Society, Division of Environmental Chemistry. Philadelphia, PA. August 19-23, 2012.
s. Symposium Organizer, '*Nanoscale Materials for Conversion of Biorenewables to Commodity Chemicals and Fuels*,' 243rd National Meeting of the American Chemical Society, Division of Colloid and Surface Chemistry. Anaheim, CA. March 27 – 31, 2011.
t. Symposium Organizer, '*Nanoscience Fostered Advances in Sustainability,*' 233rd National Meeting of the American Chemical Society, Division of Colloid and Surface Chemistry. Chicago, IL. March 25-29, 2007.
u. Symposium Chair, '*Basic Research in Surface and Colloid Science*,' National Meeting of the 233rd National Meeting of the American Chemical Society, Division of Colloid and Surface Chemistry. Chicago, IL. March 25-29, 2007.
v. American Chemical Society, September 2006, April 2008.
Invited by the Education Division of the American Chemical Society to serve as a panelist for the 'Graduate School Reality Check' Undergraduate Program. Role was to inform chemistry undergraduate students seeking admissions into graduate schools (1) how to distinguish themselves during their undergraduate career, and (2) what looks best on a graduate school application.

12. **Advanced Oxidation Technologies (AOTs)**
- Served on the annual International Conference Planning Committee, 2008 - Present

13. **Journal Reviewer** *for*
- Langmuir
- Journal of the American Chemical Society
- Chemistry of Materials
- Solid State Sciences
- Angewandte Chemie
- Sensors
- Journal of Chemistry and Physics of Solids
- Journal of Physical Chemistry
- Journal of Solid State Chemistry
- Nature Communications
- Nanotechnology
- Materials Research Bulletin
- Environmental Science and Technology
- ACS Nano
- Sensors and Actuators B
- Journal of Inorganic Biochemistry
- ACS Applied Materials and Interfaces
- Talanta
- Catalysis Today
- Electrochemica Acta

14. **Western Michigan University**

University Service
- Served on the Lee Honors College Dean Search Committee, 2013.
- Served on the University Technology and Development Fund Committee, 2011-present
- Served on the College of Arts and Sciences Diversity and Inclusion Committee, 2009-present.
- Elected to serve on the Women's Caucus Steering Committee, 2007
- Served on the Director of Diversity Recruitment Search Committee, 2006
- Served as an internal/Quality Circle grant reviewer for the Office for the Vice President for Research at Western Michigan University, 2006-2007

Departmental Service
- Associate Chair, 2011 – 2013

- Chair, Chemistry Chairperson Search Committee, 2011
- Chair, Personnel Committee, 2011 – 2012
- Departmental Policy Statement Coordinator, 2011-12
- Department of Chemistry, Biochemistry Faculty Search Committee Member, 2011
- Department of Chemistry, Chemical Educator Faculty Search Committee Member, 2011
- Chair, Graduate Studies Committee, 2010 - 2013
- Graduate Advisor, 2010 - 2013
- Academic Program Planning Committee Chair, 2009 – 2010
- Graduate Studies Committee, 2004-2007; 2010 - 2016
- Visiting Lecturer Committee, 2004-2007
- Department of Chemistry Chair Search Committee, 2006
- Department of Chemistry Inorganic Chemist Faculty Search Committee, 2007
- Graduate and Undergraduate student thesis committees
- Presented a seminar to Research Experience for Undergraduates (REU) program entitled 'Nanotechnology: The big deal about the small things.'
- Bridges Program, Western Michigan University (Co-Director 09/2006 – 08/2009, and Director, 09/2009 – 08/2010)

15. **Community Outreach**
    - Organizer of the WMU Campus 'Chemistry is Fun', Event for Elementary School Students. 2010-present
    - Faculty Mentor for FIRST (For Inspiration and Recognition of Science and Technology): Organized the *FIRST* program in Southwest Michigan to allow middle school students to learn and gain hands-on experience in Nanotechnology. Worked side-by-side with youth on *FIRST* teams to build scientific knowledge and skills while motivating young people ages 9-14 to pursue opportunities in science and technology. ***WON 2nd PLACE AWARD IN THE STATE OF MICHIGAN*** May 2006 - present
    - Served as a judge for the Intel Science and Engineering Fair, for the Kalamazoo Area Math and Science Center (KAMSC) students. March, 2005

PROFESSIONAL AFFILIATIONS

- Electrochemical Society, 2007 - present
- National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE), 2001-present
- American Chemical Society, 2000 – present