

**Melissa S. Reeves, Ph.D., Associate Professor, Department of Chemistry
Publications and Presentations (2008-2017)**

BOOKS/ BOOK CHAPTERS

1. Melissa S. Reeves and Robert Whitnell, "New computational physical chemistry experiments: Using POGIL techniques with *ab initio* and molecular dynamics calculations," book chapter in *Addressing the Millennial Student: New Pedagogy and Approaches to Improve Student Learning Outcomes in Undergraduate Chemistry*, ACS Symposium Series (2014), 71-90.
2. *General Chemistry: Quantitative and Qualitative Laboratory Experiments*, Albert E. Russell, Fitzberald B. Bramwell, Gregory Pritchett, Melissa S. Reeves, Marilyn P. Tourne, Daniel A. Abugri, Empire Science Resources, 2014.

PAPERS PUBLISHED/IN PRINT

PUBLICATIONS IN CONFERENCE PROCEEDINGS/ABSTRACTS

1. "Tensile and compressive deformation of polyethylene with varying temperature and strain rate," Rozlyn N. Chambliss, Deepak Srivastava, Maxim Makeev, and Melissa S. Reeves, PMSE Preprints (2011).
2. "Simulated tensile behavior of graphene-polypropylene nanocomposites," Rozlyn N. Chambliss and Melissa S. Reeves, PMSE Preprints 98 (2008), 420-421.

PRESENTATIONS AT NATIONAL AND INTERNATIONAL CONFERENCES

1. "Balancing 'wow' and 'satisfying standards' with hands-on activities and critical thinking: Developing middle school science modules," Melissa S. Reeves, Chastity Bradford, Alexandria Bufford, De'Shayla Chappell, Gerald Griffin, Belinda Hart, and Lauren Jackson, poster presented at 249th ACS National Meeting and Exposition, Denver, CO, March 22-26, 2015.
2. "What makes an electron a valence electron? Introducing students to computational chemistry in the POGIL-PCL framework," Melissa S. Reeves, oral presented at 249th ACS National Meeting and Exposition, Denver, CO, March 22-26, 2015.
3. "What factors affect the escapability of a molecule from a liquid? A molecular dynamics experiment for the physical chemistry laboratory," Robert M. Whitnell and Melissa S. Reeves, oral presented at 249th ACS National Meeting and Exposition, Denver, CO, March 22-26, 2015.
4. "Developing middle school science modules with data-driven decision making," Melissa S. Reeves, oral presented at 2014 Biennial Conference on Chemical Education, Grand Valley State University, Allendale, MI, August 2014.
5. "Using a number line to visualize K, Q, and LeChatelier's principle," Melissa S. Reeves, poster presented at 2014 Biennial Conference on Chemical Education, Grand Valley State University, Allendale, MI, August 2014.
6. "Tensile and compressive deformation of polyethylene with varying temperature and strain rate," Rozlyn N. Chambliss, Deepak Srivastava, Maxim Makeev, and Melissa S. Reeves, ACS Spring Meeting, March 25-29, 2011, Anaheim, CA

7. "Discovery Education Science in the Middle School Curricula via Nanoscience Modules: a component of the project "Minority-Teacher Led Program Partnership Model for Integration of NanoBiotechnology among Research Centers and the K-12 Classroom," Alicia Curry, Michael Curry, Tanjula Petty, Melissa Reeves, and Shaik Jeelani. MSP Annual Meeting, Washington DC Jan 23, 24, 25, 2011.
8. "Tuskegee University Research Experience for Undergraduates Site in Material Science and Engineering." Poster presented at National Engineering Education Conference, Washington, DC, February 2, 2009.
9. "Providing structure for the undergraduate research environment: Introduction to research at Tuskegee University," Kyle R. Willian and Melissa S. Reeves, Oral Presentation at the 20th Biennial Conference on Chemical Education, July 31, 2008, Bloomington, IN.
10. "Simulated tensile behavior of graphene-polypropylene nanocomposites," Rozlyn N. Chambliss and Melissa S. Reeves, poster presented at the 225th National American Chemical Society Meeting, April 8, 2008, New Orleans, LA.
11. "Computational Study of the phenol-formaldehyde reaction: Reactive intermediates and transition states with salvation," Julaunica A. Tigner and Melissa S. Reeves, poster presented at the 235th American Chemical Society National Meeting, April 2008, New Orleans, LA.
12. "Atomistic Simulation of Tensile Behavior of Graphene-Polypropylene Nanocomposites," Rozlyn N. Chambliss and Melissa S. Reeves, Oral Presentation at NOBCChe, March 18, 2008, Philadelphia, PA.

OTHER INVITED LECTURES AND WORKSHOP PRESENTATIONS

1. "Lightastic," Middle School Science Module presented at MSP Workshop, Tuskegee University, February 2014.
2. "New computational physical chemistry experiments: Using POGIL techniques with ab initio and molecular dynamics calculations," Melissa S. Reeves and Robert M. Whitnell, oral presented at the 65th Southeast Regional Meeting of the American Chemical Society, Atlanta, GA, Nov. 13-16, 2013.
3. "How do we see DNA?" Middle School Science Module presented at MSP Workshop, Tuskegee University, November 2012.
4. "Twenty Years Later: What Have I Learned," Russell W. Brown Award Speech, Sigma Xi Banquet and Induction Ceremony, Tuskegee, AL, April 11, 2011.
5. "Sixth grade Space Science and Nanoscience," Teacher's Workshop at Kellogg Conference Center, Tuskegee University, Tuskegee, AL, Jan 3, 2011. Sponsored by MSP/START grant, co-presented with Michael Curry and Alicia Curry.
6. "Research Cornucopia: Experiments, molecular simulation, and ab initio calculations," invited seminar at Illinois Institute of Technology, Nov. 10, 2010, Chicago, IL
7. "Discovery Education Science in the Middle School Curricula via. NanoScience Modules: *Students Exploring Science Like Real Scientists*" SECME Institute, Clemson, SC, June 26, 2010. Workshop presented by Alicia Curry, Michael Curry, and Melissa Reeves.