

Arlie Bagley

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Education:

BS, Chemistry: ACS Track, James Madison University, Harrisonburg, VA; Graduation Date: May 2014

Experience:

2013-Present, Physical Chemistry, Organic, General Chemistry Lab TA, James Madison University Chemistry Department,

- Teaching use of GC-MS, GC, DSC, EGA-IR, NMR, UV-Vis, FT-IR; prepping chemicals; testing and developing new experiments.

Spring 2011-Present, Researcher (for credit), James Madison University Chemistry Department

- Experience using EGA-IR, DSC, TGA, FT-IR, HPLC and OMNIC software; extensive knowledge of NMR and Topspin software

May 2013-August 2013, REU Research Student, James Madison University Chemistry Department

- Experience using T1 and T2 relaxations on different systems, modifying NMR parameters, DSC, and developing new physical chemistry labs.

June 2012- August 2012, REU Research Student, James Madison University Chemistry Department

- Using NMR to investigate hydrogen bonding between methanol and different solvents; basic techniques in NMR; T1, T2 relaxations; presenting data and findings in seminar

Fall 2011-Present, Employee, JMU Dining Services

- Prepping food, preparing food, customer interaction, management of different shops when supervisor is not present

References available upon request

Publications:

Physical Chemistry Laboratory Projects Using NMR and DFT-B3LYP Calculations

A.C. Bagley, C.C. White, M. Mihay, and T.C. DeVore*, in *ACS Symposium Series*, 2013, DOI: 10.1021/bk-2013-1128.ch015

Presentations:

"NMR belongs in the physical chemistry laboratory", Oral Presentation Paper #34, National American Chemical Society Meeting, March 2014

"T1 and T2 Relaxations: MRI Technology in the Physical Chemistry Laboratory", Poster #36, Southeastern Magnetic Resonance Conference, August 2013

"NMR in the Physical Chemistry Laboratory", Poster # 963, Southeastern Regional Meeting of the American Chemical Society 2012- Magnetic Resonance Conference, November 2012

"The Effects of Methanol on Hydrogen Bonding in Various Solvents", JMU Research Experience for Undergraduates, August 2012

Professional Affiliations:

- Alpha Chi Sigma, Master Magician, 2013-Present
- Alpha Chi Sigma, Brother, 2012-Present
- Student Affiliates of ACS, VP of Service, 2012-2013
- Student Affiliates of ACS, Member, 2010-Present

