

Curriculum Vitae

William S. Taylor
Professor of Chemistry
University of Central Arkansas
11/21/2014

EDUCATION

Ph.D., Physical Chemistry, Louisiana State University, August 1988.

Dissertation

“Gas Phase Reactions of Ligating Anions with Selected Lewis Acids as Potential Energy Surface Probes,” 1988.

B.A., Chemistry, with distinction; Hendrix College, 1983

Senior Research Project

“Synthesis and Resistivity Evaluations of Charge-Transfer Complexes of 7,7,8,8-Tetracyanoquinodimethane,” 1983.

PROFESSIONAL ORGANIZATIONS

American Chemical Society

WORK EXPERIENCE

2009-present; Professor of Chemistry, University of Central Arkansas

2005-2009; Professor and Chair of Chemistry, University of Central Arkansas.

2002-2005; Professor of Chemistry, University of Central Arkansas.

1994-2002; Associate Professor of Chemistry, University of Central Arkansas.

1990-1994; Assistant Professor of Chemistry, University of Central Arkansas.

1988-1990; Developmental Scientist, Extrel Corporation.

COURSES TAUGHT

Chemistry 1301 – Fundamentals of Chemistry

Chemistry 1400 – Chemistry in Society

Chemistry 1450 – College Chemistry I

Chemistry 1451 – College Chemistry II

Chemistry 4385 – Advanced Topics: Kinetics and Dynamics

Chemistry 4451 – Advanced Analytical Chemistry

Chemistry 4460 – Physical Chemistry II

PUBLICATIONS

1. Babcock, L. M.; Taylor W. S.; Herd, C. R. "Ion- Molecule Association Reactions: Cl⁻ Addition to SiF₄ in He and N₂," *Int. J. Mass Spec. Ion Proc.* **1987**, *81*, 259-272 .
2. Cho, S. G.; Fronczek, F. R.; Taylor, W. S.; Watkins, S. F. "Structure of 2,2',5,5'-Bis(butanobisthio)di-1,3,4-thiadiazole," *Acta Crystallographica* **1988**, *C44*, 769-771.
3. Taylor, W. S.; Dulak, J. G. "Applications of a New Glow Discharge Quadrupole Mass Spectrometer," *Spectroscopy* **1989**, *4*(4), 41-46.
4. Taylor, W. S.; Ketkar, S. N.; Dulak, J. G. "Characterization of a Glow Discharge Plasma as a Function of Sampling Orifice Potential," *J. Amer. Soc. Mass Spec.* **1990**, *1*, 448-454.
5. Taylor, W. S.; Everett, W. R.; Babcock, L. M.; McNeal, T. L. "Application of a Glow Discharge Ion Source in a Flowing Afterglow Study of Transition Metal Ion Chemistry," *Int. J. Mass Spectrom. Ion Proc.* **1993**, *125*, 45-54.

6. Taylor, W. S.; Babcock, L. M. "Reactions of Catecholate and Related Anions with SiF₄ and BF₃," *J. Am. Chem. Soc.* **1995**, *117*, 6497-6503.
7. Taylor, W. S.; Campbell, A. S.; Barnas, D. F.; Babcock, L. M.; Linder, C. B. "Thermal and Near-Thermal Reactions of Pt⁺, and Au⁺ with Small Alkenes," *J. Phys. Chem. A* **1997**, *101*, 2654-2661.
8. Taylor, W. S.; Spicer, E. M.; Barnas, D. F. "Metastable Metal Ion Production in Sputtering DC Glow Discharge Plasmas: Characterization by Electronic State Chromatography," *J. Phys. Chem. A* **1999**, *103*, 643-650.
9. Taylor, W. S.; May, J. C.; Lasater, A. S. "Reactions of Cu⁺ (¹S, ³D) and Au⁺ (¹S, ³D) with CH₃Br" *J. Phys. Chem. A* **2003**, *107*, 2209-2215.
10. Taylor, W. S.; Matthews, C. C.; Parkhill, K. S. "Reactions of Cu⁺ (¹S, ³D) with CH₃Cl, CH₂ClF, CHClF₂, and CClF₃" *J. Phys. Chem. A* **2005**, *109*, 356-365.
11. Taylor, W. S.; Matthews, C. C.; Hicks, A. J.; Fancher, K. G.; Chen, L. C. "Near-Thermal Reactions of Au⁺ (¹S, ³D) with CH₃X (X = F, Cl)" *J. Phys. Chem. A* **2012**, *116*, 943-951.
12. Taylor, W. S.; Abrams, M. L.; Matthews, C. C.; Byers, S.; Musial, S.; Nichols, C. M. "State-Specific Reactions of Cu⁺ (¹S, ³D) with CH₃X and CF₃X (X = Cl, Br, I): Exploring the Influence of Dipole Orientation on Association and C-X Bond Activation" *J. Phys. Chem. A* **2012**, *116*, 3979-3988.
13. Taylor, W. S.; Fancher, K. G.; Chen, L. C.; Ward, B. K.; Cameron, C. A. "Probing Ni⁺ Metastable State Production in Sputtering Glow Discharges with the Use of Diagnostic Reactions" *Int. J. Mass Spectrom.* **2013**, *352*, 29-36.
14. Taylor, W. S.; Manion, J. M.; Church, C. M.; Redmon, X. S.; Scheuter, B. A. "State-Specific Reactions of Cu⁺ (¹S, ³D, ¹D) with the Super Greenhouse Gas SF₅CF₃," *J. Phys. Chem. A* **2014**, *118*, 10919-10926.