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Professional Experience

Washington & Jefferson College

Assistant Professor August 2005 – present
Department of Physics

The Pennsylvania State University

Postdoctoral Scholar September 2002 – July 2005
Departments of Chemistry and Physics

Cornell University

Graduate Research Assistant January 1998 – August 2002
Department of Chemistry and Chemical Biology and Department of Physics

Graduate Teaching Assistant Spring 1998, Spring 1999
Department of Physics

Education

Cornell University

Ph.D., Experimental Physics August 2002
Minor in Chemistry/Chemical Physics
Thesis: Magnetic Studies of Electrodeposited Thin Films and Compositionally Modulated Structures
Advisor: Héctor D. Abruña

M.S., Physics May 1999

University of Cambridge

M.Phil., Physics November 1996
Thesis: Formation and Properties of Thermally Prepared Copper(I) Oxide
Advisor: C. John Adkins

Oberlin College

B.A., Physics with Highest Honors May 1995

Honors & Awards

National Physical Science Consortium Fellowship 1996 – 2002
Winston Churchill Foundation Scholarship 1995 – 1996
Oberlin College Sigma Xi 1995
Oberlin College Phi Beta Kappa 1994

Publications

- J. R. Hampton, A. A. Dameron, and P. S. Weiss, "Double ink dip-pen nanolithography to elucidate ink transport," *J. Am. Chem. Soc.* **128**, 1648 (2006).
- J. R. Hampton, A. A. Dameron, and P. S. Weiss, "Transport rates vary with deposition time in dip-pen nanolithography," *J. Phys. Chem. B* **109**, 23118 (2005).
- A. A. Dameron, J. R. Hampton, S. D. Gillmor, J. N. Hohman, and P. S. Weiss, "Enhanced molecular patterning via microdisplacement printing," *J. Vac. Sci. Technol. B* **23**, 2929 (2005).
- R. Stine, M. V. Pishko, J. R. Hampton, A. A. Dameron, and P. S. Weiss, "Heat-stabilized phospholipids films: Film characterization and the production of protein resistant surfaces," *Langmuir* **21**, 11352 (2005).
- A. A. Dameron, J. R. Hampton, R. K. Smith, S. D. Gillmor, T. J. Mullen, and P. S. Weiss, "Microdisplacement printing," *Nano Lett.* **5**, 1834 (2005).
- J. Powers, J. R. Manson, C. E. Sosolik, J. R. Hampton, A. C. Lavery, and B. H. Cooper, "Temperature dependent scattering of hyperthermal energy K^+ ions," *Phys. Rev. B* **70**, 115413 (2004).
- J. R. Hampton, J.-L. Martínez-Albertos, and H. D. Abruña, "SMOKE measurements of electrodeposited mono- and multilayers," *Langmuir* **19**, 4309 (2003).
- C. E. Sosolik, J. R. Hampton, A. C. Lavery, B. H. Cooper, and J. B. Marston, "Thermally enhanced neutralization in hyperthermal energy ion scattering," *Phys. Rev. Lett.* **90**, 013201 (2003).
- J. R. Hampton, J.-L. Martínez-Albertos, and H. D. Abruña, "Development of a versatile SMOKE system with electrochemical applications," *Rev. Sci. Instrum.* **73**, 3018 (2002).
- J. Hampton, J. P. Eisenstein, L. N. Pfeiffer, and K. W. West, "Capacitance of two-dimensional electron systems subject to an in-plane magnetic field," *Solid State Commun.* **94**, 559 (1995).

Presentations

- "Molecular Engineering of Single Molecular Switches and Molecular Assemblies," American Physical Society March Meeting, Los Angeles, CA (March 2005), invited talk.
- "The Effect of Substrate Hydrophobicity in Ink Transport During Dip-Pen Nanolithography," American Physical Society March Meeting, Los Angeles, CA (March 2005), contributed talk.
- "The Limits of Soft Lithographic Techniques: Pattern Stability and Molecular Order," Sponsors Days Poster Session, Department of Chemistry, The Pennsylvania State University, University Park, PA (October 12, 2004).
- "Pattern Stability in Microcontact Printed Self-Assembled Monolayers," American Chemical Society National Meeting, Philadelphia, PA (August 2004), contributed poster.
- "Nanoscale Ferroic Materials for Use in Data Storage," Colloquium, Department of Physics and Astronomy, Oberlin College, Oberlin, OH (February 27, 2003).
- "SMOKE Measurements of Electrochemically Deposited Co Thin Films and Co-Cu Multilayers," American Physical Society March Meeting, Indianapolis, IN (March 2002), contributed talk.
- "Temperature-Dependent Scattering Dynamics of Hyperthermal-Energy K^+ Incident on Cu(001)," American Physical Society March Meeting, Minneapolis, MN (March 2000), contributed talk.
- "Temperature Dependent Alkali Ion Scattering from Cu(001)," European Science Foundation Conference *Particle-Solid Interactions: Dynamic Phenomena*, San Sebastian, Spain (September – October 1999), contributed poster.

Professional Activities

Member of: American Physical Society, American Chemical Society, Materials Research Society, American Association of Physics Teachers, American Scientific Affiliation

Reviewer for: Journal of Electroanalytical Chemistry, Langmuir, Nano Letters

College Committee Service

Committee on Prizes, Awards, and Fellowships, Washington & Jefferson College 2006 – present

Student Life Advisory Committee, Washington & Jefferson College 2006 – present