

Daniel Abras

Current Position:

Graduate Student
Department of Chemical and Biological Engineering
University of Wisconsin - Madison

Education: Johns Hopkins University, Baltimore, MD
Bachelor of Science in Biomedical Engineering
Bachelor of Science in Chemical and Biomolecular Engineering
Received May 2005 with Departmental and University Honors

Presentations:

Effect of Severe Confinement on DNA Relaxation Behavior
Biology of Genomes Meeting, Cold Spring Harbor Laboratory (5/10/07)
Daniel Abras, Juan J. de Pablo, David C. Schwartz

Light and Small-Angle Neutron Scattering Measurements of Weak Protein-Protein Interactions in Chemically Denatured Staphylococcal Nuclease
49th Biophysical Society Annual Meeting: Protein Folding & Stability II (2/14/05)
Daniel Abras, Amit Paliwal, Michael E. Paulaitis

Protein Solution Thermodynamics and the Crystallization Behavior of Staph Nuclease 2004
Annual AIChE Meeting: Crystallization of Pharmaceutical and Biological Molecules II (11/11/04)
Amit Paliwal (Speaker), Anthony Amstrong, **Dan Abras**, Bertrand Garcia-Moreno, Michael E. Paulaitis

Publications:

Light Scattering Studies of Protein Solutions: Role of Hydration in Weak Protein-Protein Interactions. *Biophysical Journal* **89**:1564-1573 (2005)
Amit Paliwal, Dilip Asthagiri, **Daniel Abras**, Abraham Lenhoff, Michael E. Paulaitis

Light Scattering Studies of Protein Solutions: A Consistent Experimental and Modeling Approach. *Biophysical Journal* **88**:3300-3309 (2005)
Dilip Asthagiri, Amit Paliwal, **Daniel Abras**, Abraham Lenhoff, Michael E. Paulaitis

Honors, Awards, and Fellowships:

04/06 Genomic Sciences Training Program
02/04 Howard Hughes Research Fellowship
11/03 Alpha Eta Mu Beta: National Honor Society for Biomedical Engineers
08/01 Robert C. Byrd Honors Scholarship

Past Employment:

- 6/03-05/05 *Studied Weak Protein-Protein Interactions Using Light and Neutron Scattering*
Investigated the effects of salts on the protein-protein interactions of Staphylococcal Nuclease using static light scattering and small-angle neutron scattering
PI: Michael E. Paulaitis
- 5/01-6/03 *Designed Aerosolic Microparticles for Controlled Pulmonary Drug Delivery*
Studied the effects of supercritical carbon dioxide on the shape and density of polymeric microspheres in order to allow for medications to be inhaled
PI: Michael E. Paulaitis & Justin Hanes
- 6/00-9/00 *Studied the Diffusion of Colloidal Microspheres using Quasielastic Light Scattering*
Investigated the effects of salts on the hydrodynamic radius of colloidal solutions
PI: Michael E. Paulaitis