

Symposium 3B

Title: **General Papers in Colloids and Surface Science B**

Chair: D. A. Shipp

Chair Assistant: Mahesh Thopasridharan

Location: 162 Science Center

Monday June 13, 2005

Presiding: J. Philip, T. Oja, P. Bjöörn

Paper	Time	Title and Authors
3B-01	11:00 - 11:20 AM	How Do Hydrated Ions Act as the Lubricant Between Silica Surfaces in Solutions?; A Nanotribology Study in Aqueous Solutions by AFM B. C. Donose, E. Taran, I. U. Vakarelski, K. HIGASHITANI
3B-02	11:20 - 11:40 AM	Interaction Between Polymer, Surfactant and Colloid Studied by a Novel Force Measurement Technique J. PHILIP
3B-03	11:40 - 12:00 AM	Investigation of the Role of Geometry and Fluid Structure in the Description of Depletion Forces via Scaled Particle Theory-based Integral Equations for Hard Sphere Fluids D. W. SIDERIUS, D. S. Corti
3B-04	12:00 - 12:20 PM	Aggregation Modeling Using Sinc Methods T. RING
3B-05	1:30 - 1:50 PM	The Role of Ultrasonic Analysis in Colloid Characterization T. OJA, G. DosRamos, R. W. Reed
3B-06	1:50 - 2:10 PM	Measurement of the Zeta Potential of Planar Solid Surfaces by Means of a Rotating Disk J. D. HOGGARD, P. J. Sides, D. C. Prieve
3B-07	2:10 - 2:30 PM	Structuring of Nanoparticles and Micelles Confined Between Surfaces A. TULPAR, B. Fazelabdolabadi, P. Van Tassel, J. Y. Walz

3B-08	2:30 - 2:50 PM	Charge Instability Induced Breakups of Droplets Containing Ionic Solutes and Suspended Nanoparticles K.-Y. LI, A. K. Ray
3B-09	3:20 - 3:40 PM	The use of the QCM-D Technique as a Versatile Transducer Technology for Biosensor Applications P. BJÖÖRN, F. Höök, R. Richter
3B-10	3:40 - 4:00 PM	Quartz Crystal Microbalance Based on Impedance Analysis-Modeling of Interfacial Layer Properties T. VIITALA, J. Vuorinen
3B-11	4:00 - 4:20 PM	Multi-Layer Adsorption of Sodium Alginate on Quartz Surfaces: A QCM-D Study of Adsorbed Layer Properties A. J. DE KERCHOVE, M. Elimelech
3B-12	4:20 - 4:40 PM	Surface Interactions of PGMA-DETA Polymeric Adsorbent in Copper Ion Removal C. LIU, R. Bai
3B-13	4:40 - 5:00 PM	Effects of an Electric Field on Surface Tension of Conducting Liquids A. Bateni, S. Laughton, A. AMIRFAZLI, A. W. Neumann
3B-14	5:00 - 5:20 PM	Enhancement of Adhesion to Heterogeneously Patterned Substrates D. RAMRUS, J. C. Berg

Tuesday June 14, 2005

Presiding: D. Johnson, N. Kallay, K. Erlacher

3B-15	10:30 - 10:50 AM	Two Hundred Years of Contact Angle Research A. AMIRFAZLI
3B-16	10:50 - 11:10 AM	Determination of Surface Tension of Fluoropolymers from Contact Angles and the Role of Liquid and Polymer Molecular Properties H. TAVANA, A. W. Neumann

3B-17	11:10 - 11:30 AM	A Methodology for Surface Tension Measurement from the Analysis of Liquid Bridges Shapes M. G. CABEZAS, J. M. Montanero
3B-18	11:30 - 11:50 AM	Do Polysaccharides Such as Dextran and Their Monomers Really Increase the Surface Tension of Water? M. HOORFAR, M. Kurz, Z. Policova, M. Hair, A. W. Neumann
3B-19	11:50 - 12:10 AM	The Interfacial Tension of Spherical and Aspherical Colloidal Dispersions D. JOHNSON, L. Dong
3B-20	12:10 - 12:30 PM	Measurement of Line Tension in Liquid-Liquid Systems Z. TAVASSOLI, A. Bateni, A. W. Neumann
3B-21**	1:30 - 2:10 PM	Critical Evaluation of the Surface Complexation Model for Metal Oxide Aqueous Interface Based on Measurements of Surface Potential N. KALLAY, T. Preocanin, A. Cop
3B-22	2:10 - 2:30 PM	Investigating the Aqueous Surface Chemistry of TiO ₂ Pigments Using ATR-IR Spectroscopy S. DICKIE, J. McQuillan
3B-23	2:30 - 2:50 PM	Effects of Charge and Size on Condensation of Supersaturated Water/n-Butanol Vapor on Nanoparticles of SiO ₂ , TiO ₂ , d-Mannose, and Rhamnose C.-C. CHEN, Y.-A. Shen, H.-C. Cheng, C.-T. Lin
3B-24	3:20 - 3:40 PM	Preparation Temperature Dependence of Size and Polydispersity of Thiol-Coated Gold Nanoparticles Determined by SAXS K. ERLACHER, J. M. Jørgensen, J. S. Pedersen, K. V. Gothelf
3B-25	3:40 - 4:00 PM	Size Control of Nanoparticles During Precipitation the BNG Way I. H. LEUBNER
3B-26	4:00 - 4:20 PM	Synthesis of Platinum Multipods: Control of Anisotropic

Growth
X. TENG, H. YANG

- 3B-27 4:20 - 4:40 PM Transport in Polymer Gels with Charged Spherical Inclusions
R. J. HILL
- 3B-28 4:40 - 5:00 PM Study of Surface Tension of Lung Surfactant: Influence of
Humidity on the Properties of the Surface Film
R. GITIAFROZ, E. Acosta, Z. Policova, H. Tavana, A. W.
Neumann
- 3B-29 5:00 - 5:20 PM Binary Colloidal Alloys at Liquid Interfaces - from Super
Lattices to Stoichiometric Clusters
T. S. HOROZOV, R. Aveyard, B. P. Binks, J. H. Clint

Wednesday June 15, 2005

Presiding: R.S. Subramanian

- 3B-30 10:00 - 10:20 AM Characterization of Dry Adhesion Between Carboxymethyl
Cellulose and Glassine Paper
Z. FENG, R. Pelton
- 3B-31 10:20 - 10:40 AM A Molecular Dynamics Study of the Role of Conventional and
Silicon Surfactants in the Wetting of Hydrophobic Substrates by
Aqueous Solutions
J. D. HALVERSON, J. Koplik, A. Couzis, C. M. Maldarelli
- 3B-32 10:40 - 11:00 AM Bovine Serum Albumin (BSA) as an Adhesive for Wet
Cellulose
S. SU, R. Pelton
- 3B-33 11:00 - 11:20 AM Motion of Liquid Drops on a Horizontal Surface with a
Wettability Gradient
N. MOUMEN, R. S. Subramanian, J. B. McLaughlin
- 3B-34 11:20 - 11:40 AM Adhesion Between Precipitated Calcium Carbonate and
Cellulose Fibre
Y. XU, R. Pelton