

Symposium 2

Title: **Aggregation and Deposition of Colloidal Particles**

Chair/Co-Chair: M. Borkovec, P. R. van Tassel

Chair Assistant: Prasanna Venkatachari

Location: Barben AB, Cheel

**Monday June 13, 2005**

Presiding: M. Borkovec

Paper	Time	Title and Authors
2-01**	1:30 - 2:10 PM	Nanosize Particles as Building Blocks for Uniform Colloids of Different Morphologies E. MATIJEVIC
2-02	2:10 - 2:30 PM	Applications of Light Scattering Techniques for Determining Doublet Formation Rate of Colloidal Systems M. Lattuada, Z. Jia, H. WU, A. Vaccaro, J. Sefcik, M. Morbidelli
2-03	2:30 - 2:50 PM	Destabilization of Silica Nanoparticles Suspensions with $Al_{13}$ Polycations C. PARNEIX, B. Cabane, J. Persello
2-04	3:20 - 3:40 PM	Heteroflocculation Induced by Montmorillonite Plates Acting as Bridging Agents A. Vanerek, B. Alince, T. G. M. VAN DE VEN
2-05	3:40 - 4:00 PM	Controlling Porosity within Colloidal Heteroaggregates D. R. E. SNOSWELL, T. Rogers, B. Vincent
2-06	4:00 - 4:20 PM	Aggregation Kinetics of Alginate-Coated Hematite Colloids in Divalent Electrolytes K. L. CHEN, S. E. Mylon, M. Elimelech
2-07	4:20 - 4:40 PM	Light Driven Aggregation of Core-Shell Chromophoric Colloids M. PIECH, N. S. Bell
2-08	4:40 - 5:00 PM	Crystalloluminescence in the Synthesis of Nanosized Particles T. RING

2-09            5:00 - 5:20 PM            Fabrication of Novel Types of Colloidosomes and Liposomes  
with Gelled Cores  
P. Noble, O. Cayre, R. Alargova, O. Velev, V. N. PAUNOV

**Tuesday June 14, 2005**

Presiding: T. G. M. van de Ven, P. R. van Tassel

2-10\*\*            10:30 - 11:10 AM            Aggregation, Cluster, Formation and Gelation in Colloidal  
Suspensions: From Photonic Liquids to Equilibrium Clusters  
and Gels  
P. SCHURTENBERGER

2-11            11:10 - 11:30 AM            Direct Imaging of Phase Behavior and Structure of a Strongly  
Adsorbing Microsphere-Nanoparticle System  
J. F. GILCHRIST, A. T. Chan, E. R. Weeks, J. A. Lewis

2-12            11:30 - 11:50 AM            Direct Visualization of the Coupled Aggregation and  
Sedimentation of Weakly Interacting Colloid-Polymer Mixtures  
M. H. LEE, E. M. Furst

2-13            11:50 - 12:10 AM            Aggregation Time Required for the Bottom-Up Assembly of  
Colloids  
A. M. YAKE, D. Velegol

2-14            12:10 - 12:30 PM            Film Formation and Gelation Process Studied by Multispeckle  
Diffusing Wave Spectroscopy  
A. BRUN, L. Brunel, P. Snabre

2-15\*\*            1:30 - 2:10 PM            Role of Electrostatic Interactions in Bacterial Deposition  
M. ELIMELECH, S. L. Walker, A. J. De Korchove

2-16            2:10 - 2:30 PM            Study of Correlation of Adsorption and Interaction of Ceria  
Nanoparticles with Silica Surface  
I. SOKOLOV, Q. K. Ong, N. Chechik, D. James

2-17            2:30 - 2:50 PM            Marangoni Effect Reverses Coffee-Ring Depositions  
H. HUA, R. G. Larson

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| 2-18 | 3:20 - 3:40 PM | Controlled Deposition and Modification of Conductive and Antireflective Nanoparticle Coatings<br>B.G. Pevo, Y. Hwang, O. D. VELEV                               |
| 2-19 | 3:40 - 4:00 PM | Faradaic Reactions as the Source of Net Interparticle Motion Driven by ~100Hz Alternating Electric Fields<br>J. A. FAGAN, D. C. Prieve, P. J. Sides             |
| 2-20 | 4:00 - 4:20 PM | Galvanic Cell Mediated Colloidal Crystallization<br>P. JIANG, D. A. Saville, I. A. Aksay  |
| 2-21 | 4:20 - 4:40 PM | In Situ Layer-by-Layer Film Formation Kinetics Under an Applied Voltage Measured by Optical Waveguide Lightmode Spectroscopy<br>A. P. NGANKAM, P. R. van Tassel |
| 2-22 | 4:40 - 5:00 PM | Secondary Energy Minima and Surface Charge Heterogeneities Cause Breakdown of Classical Filtration Theory<br>N. TUFENKJI  |
| 2-23 | 5:00 - 5:20 PM | Particle Deposition onto Micro-patterned Charge Heterogeneous Substrates<br>N. NAZEMIFARD, S. Bhattacharjee, J. H. Masliyah                                     |

**Wednesday June 15, 2005**

Presiding: O. Velev

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| 2-24** | 10:00 - 10:40 AM | Capturing the Essence of Deposition Phenomena: Random Sequential Adsorption and Related Models<br>J. TALBOT   |
| 2-25   | 10:40 - 11:00 AM | Embedding of Phospholipid Vesicles into Exponentially Growing Polyelectrolyte Multilayers: A New Way to Surface Immobilized Nanoreservoirs and Nanoreactors<br>M. Michel, G. Fleith, J.-C. Voegel, P. Schaaf, V. BALL |
| 2-26   | 11:00 - 11:20 AM | Preparation of Self-Assembled Nanostructures Using Colloidal Chemistry  |

F. JUILLERAT, P. Bowen, H. Hofmann

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| 2-27 | 11:20 - 11:40 AM | Interpretation of the Stability of Water-in-Oil Emulsions Based on Adsorption Phenomena at Oil/Water Interface<br>L. GOUAL, G. Horvath-Szabo, J. H. Masliyah |
| 2-28 | 11:40 - 12:00 AM | Anisotropic Adsorption of Molecular Assemblies on Inorganic Surfaces<br>J. CHUN, J.-L. Li, R. Car, I. A. Aksay, D. A. Saville                                |
| 2-29 | 12:00 - 12:20 PM | Monoparticles Films of Gold Nanorods Formed at a Liquid-Liquid Interface<br>Y. NIIDOME, M. Yamaguchi, S. Yamada  |