**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

<table>
<thead>
<tr>
<th>Paper</th>
<th>Time</th>
<th>Title and Authors</th>
</tr>
</thead>
</table>
| 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\textsubscript{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. SNOWELL, 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                                                                                                         |
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-09</td>
<td>Fabrication of Novel Types of Colloidosomes and Liposomes with Gelled Cores</td>
<td>P. Noble, O. Cayre, R. Alargova, O. Velev, V. N. PAUNOV</td>
</tr>
<tr>
<td>2-10</td>
<td>Aggregation, Cluster, Formation and Gelation in Colloidal Suspensions: From Photonic Liquids to Equilibrium Clusters and Gels</td>
<td>P. SCHURTENBERGER</td>
</tr>
<tr>
<td>2-12</td>
<td>Direct Visualization of the Coupled Aggregation and Sedimentation of Weakly Interacting Colloid-Polymer Mixtures</td>
<td>M. H. LEE, E. M. Furst</td>
</tr>
<tr>
<td>2-13</td>
<td>Aggregation Time Required for the Bottom-Up Assembly of Colloids</td>
<td>A. M. YAKE, D. Velegol</td>
</tr>
<tr>
<td>2-14</td>
<td>Film Formation and Gelation Process Studied by Multispeckle Diffusing Wave Spectroscopy</td>
<td>A. BRUN, L. Brunel, P. Snabre</td>
</tr>
<tr>
<td>2-15</td>
<td>Role of Electrostatic Interactions in Bacterial Deposition</td>
<td>M. ELIMELECH, S. L. Walker, A. J. De Korchove</td>
</tr>
<tr>
<td>2-16</td>
<td>Study of Correlation of Adsorption and Interaction of Ceria Nanoparticles with Silica Surface</td>
<td>I. SOKOLOV, Q. K. Ong, N. Chechik, D. James</td>
</tr>
<tr>
<td>2-17</td>
<td>Marangoni Effect Reverses Coffee-Ring Deposition</td>
<td>H. HUA, R. G. Larson</td>
</tr>
</tbody>
</table>
2-18 3:20 - 3:40 PM Controlled Deposition and Modification of Conductive and Antireflective Nanoparticle Coatings
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
J. A. FAGAN, D. C. Prieve, P. J. Sides

2-20 4:00 - 4:20 PM Galvanic Cell Mediated Colloidal Crystallization
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
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
N. TUFENKJI

2-23 5:00 - 5:20 PM Particle Deposition onto Micro-patterned Charge Heterogeneous Substrates
N. NAZEMIFARD, S. Bhattacharjee, J. H. Masliyah

Wednesday June 15, 2005
Presiding: O. Velev

2-24** 10:00 - 10:40 AM Capturing the Essence of Deposition Phenomena: Random Sequential Adsorption and Related Models
J. TALBOT

2-25 10:40 - 11:00 AM Embedding of Phospholipid Vesicles into Exponentially Growing Polyelectrolyte Multilayers: A New Way to Surface Immobilize Nanoreservoirs and Nanoreactors
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

2-27 11:20 - 11:40 AM Interpretation of the Stability of Water-in-Oil Emulsions Based on Adsorption Phenomena at Oil/Water Interface
L. GOUAL, G. Horvath-Szabo, J. H. Masliyah

2-28 11:40 - 12:00 AM Anisotropic Adsorption of Molecular Assemblies on Inorganic Surfaces
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
Y. NIIDOME, M. Yamaguchi, S. Yamada