

5th International Colloids Conference

Colloid and Interface Sciences
for a Brighter Future

21-24 June 2015
Amsterdam,
the Netherlands

Sunday – 21 st June			
Session Chair: Julian Eastoe, <i>University of Bristol, UK</i> Room: Grand Ball Room			
16:00-20:00	Registration		
17:30-17:45	Conference Welcome		
17:45-18:45	[PL01] Dynamic (non-equilibrium, rate, time, and history) dependent molecular interactions in colloidal and bio colloidal systems Jacob Israelachvili, <i>University of California, Santa Barbara, USA</i>		
18:45-20:00	Welcome reception Room: Winter Garden		
Monday – 22 nd June			
Session Chair: Martin Malmsten, <i>Uppsala University, Sweden</i> Room: Grand Ball Room			
09:00-10:00	[PL02] Particle-stabilised novel materials Bernie Binks, <i>University of Hull, UK</i>		
10:00-10:30	[KEY01] Controlling adsorption of phospholipids and proteins at the air/water interface using fluorocarbon gases. Towards new lung surfactant substitutes Marie-Pierre Krafft, <i>University of Strasbourg, France</i>		
10:30-11:00	Refreshments Room: Winter Garden and Volmer Rooms I, II and III		
Session Chair: Arthur Hubbard, <i>Santa Barbara Science Project, USA</i> Room: Grand Ball Room			
11:00-11:30	[KEY02] Amplitude modulated atomic force microscopy study of interfacial and near surface nanostructure in soft matter systems Rob Atkin, <i>University of Newcastle, Australia</i>		
11:30-12:00	[KEY03] Bioactive materials to control cell fate and tissue formation Catherine Picart, <i>University of Grenoble, France</i>		
12:00-12:30	[KEY04] CdS/graphene nanocomposite photocatalysts for Solar Fuel Production Jiaguo Yu, <i>Wuhan Technical University, China</i>		
12:30-13:30	Lunch Room: Winter Garden and Volmer Rooms I, II and III		
	Frontiers-1	Advances-1	Advances-2
	Session Chair: Calum Drummond, <i>RMIT University, Australia</i> Room: Grand Ball Room	Session Chair: Martin Malmsten, <i>Uppsala University, Sweden</i> Room: Amsterdam Room	Session Chair: Dennis Prieve, <i>Carnegie Mellon University, USA</i> Room: Foyer Room
13:45-14:05	[SC01] Vesicles: Supra-ligands for water-dispersed supracrystals N. Yang ^{1,2} , M-P. Pileni ^{*1} , ¹ <i>Sorbonne Universités, France</i> , ² <i>ESPCI, France</i> , ³ <i>CEA Saclay, France</i>	[SC07] Micellar and colloidal dispersions of conjugated polymer nanoparticles for photoinduced electron transfer applications G. Redmond, <i>University College Dublin, Ireland</i>	[SC13] Multivalency by self-assembly: binding of concanavalin A to metallosupramolecular architectures as seen by light scattering E. Buhler ^{*1} , M.J. Chmielewski ² , S.J. Candau ² , J.M. Lehn ² , ¹ <i>University Paris Diderot, Paris, France</i> , ² <i>University of Strasbourg, ISIS, France</i>
14:05-14:25	[SC02] Efficient light-controlled delivery of siRNA	[SC08] Deposition mechanism of dopamine-eumelanin films	[SC14] Understanding hydrophobic interactions of

	<p>and functional proteins to cells X. Huang¹, D. Morales¹, G. Braun¹, A. Pallaoro¹, N. Reich¹, J. Zasadzinski*², ¹<i>University of California Santa Barbara, USA</i>, ²<i>University of Minnesota, USA</i></p>	<p>at solid/liquid and liquid/air interfaces using sodium periodate as the oxidant: competition between deposition and degradation. F. Ponzio¹, A. Schneider¹, J. Hemmerlé¹, J. Bour², M. Michel², P. Schaaf^{3,4}, M. d'Ischia⁵, V. Ball*^{1,6}, ¹<i>INSERM UMR 1121, France</i>, ²<i>CRP Henri Tudor, Luxembourg</i>, ³<i>Ecole de Chimie des Polymères et des Matériaux, France</i>, ⁴<i>Centre National de la Recherche Scientifique, France</i>, ⁵<i>University of Naples Federico II, Italy</i>, ⁶<i>Université de Strasbourg, France</i></p>	<p>polymer surfaces and deformable surfaces H. Zeng, <i>University of Alberta, Canada</i></p>
14:25-14:45	<p>[SC03] On formulating eye drop emulsions R. Mafi, R. Pelton*, <i>McMaster University, Canada</i></p>	<p>[SC09] Synthesis of chitosan-poly(NIPAM) core-shell nanoparticles by semi-continuous heterophase polymerization A.G. Alvarado, J.C. Sanchez-Diaz, M.R. Arellano, J.E. Puig*, <i>Universidad de Guadalajara, Mexico</i></p>	<p>[SC15] Real-Time Observation of Platinum Nanoring Assembly in Solution G. Lin, U. Mirsaidov*, <i>National University of Singapore, Singapore</i></p>
14:45-15:05	<p>[SC04] Studies of nanoparticle adhesion to soft interfaces and membranes by the ghost tweezers method Z. Wang, J. Cheng, S. Burgess, A. Vishnyakov, A.V. Neimark*, <i>Rutgers University, USA</i></p>	<p>[SC10] Nanopore event tracking for simultaneous visual and electrical single particle analysis W. Anderson*, M. Trau, <i>The University of Queensland, Australia</i></p>	<p>[SC16] Solvent free biomass conversions through Pickering Interfacial Catalysis (PIC) Z.Y. Fan*, M. Pera-Titus, A. Liebens, J-M. Clacens, <i>Eco-Efficient Products and Process Laboratory(E2P2L), Solvay/CNRS UMI 3464, China</i></p>
15:05-15:25	<p>[SC05] Nonequilibrium aspects of polyion/mixed surfactant complexation E. Fegyver, R. Meszaros*, <i>Eotvos Lorand University, Hungary</i></p>	<p>[SC11] Manipulating the Coffee-Ring Effect via particle-interface interactions: surfactant-mediated tuning and reversible photocontrol M. Anyfantakis^{1,2}, Z. Geng^{1,2}, M. Morel^{1,2}, S. Rudiuk^{1,2}, D. Baigl*^{1,2}, ¹<i>Ecole Normale Supérieure, France</i>, ²<i>UPMC, France</i>, ³<i>CNRS, France</i></p>	<p>[SC17] Synthetic membranes combined with biomolecules: Active systems in diagnostics and therapeutics C.G. Palivan, <i>University of Basel, Switzerland</i></p>
15:25-15:45	<p>[SC06] Intracellular environment-responsive nanocapsules prepared through stabilization of self-assembly of head-tail type polycations A. Harada*, R. Teranishi, R. Matsuki, E. Yuba, K. Kono, <i>Osaka Prefecture</i></p>	<p>[SC12] Breaking good: recognizing entire drug family with a unique supramolecular nanomechanical sensor S. Federici*¹, E. Biavardi², C. Tudisco³, D. Menozzi², C. Massera², A. Sottini¹, G.G. Condorelli³, E. Dalcanale², P. Bergese¹, ¹<i>University of</i></p>	<p>[SC18] Nanoparticles dispersions in ionic liquids: what is the role of surface charge in colloidal stability? C. Guibert*, V. Dupuis, J. Fresnais, V. Peyre, <i>UPMC, France</i></p>

	<i>University, Japan</i>	<i>Brescia, Italy,²University of Parma, Italy,³University of Catania, Italy</i>	
15:45-16:15	Refreshments <i>Room: Winter Garden and Volmer Rooms I, II and III</i>		
16:15-18:00	Poster Session 1 <i>Room: Winter Garden and Volmer Rooms I, II and III</i>		
18:00-19:00	[PL03] Designing interfacial properties for superhydrophobic materials <i>Frederic Guittard, University of Nice-Sophia Antipolis, France</i>		
Tuesday – 23rd June			
Session Chair: Teresa Bandosz, City College of New York, USA <i>Room: Grand Ball Room</i>			
09:00-10:00	[PL04] The construction of nanocapsule systems <i>Katharina Landfester, Max Planck Institute, Mainz, Germany</i>		
10:00-10:30	[KEY05] Charge control of graphene oxide in colloidal systems: non-covalent assembly and recycling of nanomaterials <i>Rico Tabor, Monash University, Victoria, Australia</i>		
10:30-11:00	Refreshments <i>Room: Winter Garden and Volmer Rooms I, II and III</i>		
Session Chair: Manuel Arturo Lopez-Quintela, Universidade de Santiago de Compostela, Spain <i>Room: Grand Ball Room</i>			
11:00-11:30	[KEY06] Multiresponsive polymer coatings based on hydrogel microparticles <i>Regine Von Klitzing, TU Berlin, Germany</i>		
11:30-12:00	[KEY07] Finding the right fit: tuning surfactants self-assembly and viscoelasticity with cyclodextrins <i>Cecile Dreiss, King's College London, UK</i>		
12:00-12:30	[KEY08] Novel biosensors based on organic field-effect transistor interfaces engineered with hierarchically organized layers of phospholipids and proteins <i>Gerardo Palazzo, University of Bari, Italy</i>		
12:30-13:30	Lunch <i>Room: Winter Garden and Volmer Rooms I, II and III</i>		
	Frontiers-2	Advances-3	Advances-4
	Session Chair: Rico Tabor, Monash University, Victoria, Australia <i>Room: Grand Ball Room</i>	Session Chair: Rob Atkin, University of Newcastle, Australia <i>Room: Amsterdam Room</i>	Session Chair: Marie-Pierre Krafft, University of Strasbourg, France <i>Room: Foyer Room</i>
13:45-14:05	[SC19] Nanosystems for finely controlled cleaning of cultural heritage <i>P. Baglioni^{1,2}, ¹University of Florence, Italy, ²Center for Colloid and Surface Science, CSGI, Italy</i>	[SC25] Fast and accurate electrical characterization of single colloidal particles with optical trapping electrophoresis <i>F. Beunis*, T. Brans, C. Schreuer, S. Vandewiele, F. Strubbe, K. Neyts, Ghent University, Belgium</i>	[SC31] Pickering emulsions based on polyoxometalate nanoparticles: a smart platform for catalysis <i>L. Leclercq*¹, V. Nardello-Rataj¹, P. Bauduin², A. Proust³, ¹Université de Lille, Sciences et Technologies, France, ²Institut de Chimie Séparative de Marcoule, France, ³Sorbonne Universités, France</i>
14:05-14:25	[SC20] The effects of activated carbon surface features on the reactive adsorption of carbamazepine and sulfamethoxazole <i>L. Nielsen, T.J. Bandosz*, CCNY and</i>	[SC26] Chiral nanoparticles for enantioselective crystallization <i>L.C. Preiss*¹, L. Werber², Y. Mastai², K. Landfester¹, R. Muñoz-Espí¹, ¹Max Planck Institute for Polymer Research,</i>	[SC32] Controlled colloidal materials production using microfluidic droplet-to-particle technology <i>T. Ono*, T. Watanabe, Okayama University, Japan</i>

	<i>Graduate Center CUNY, USA</i>	<i>Germany,²Bar-Ilan University, Israel</i>	
14:25-14:45	[SC21] Fluorescent silica nanoparticles with tunable charge for in vivo mapping of regional lymph nodes E. Rampazzo* ¹ , L. Prodi ¹ , F. Salis ¹ , S. Bonacchi ¹ , M. Helle ² , L. Bezdetnaya ² , F. Marchal ² , ¹ University of Bologna, Italy, ² Université de Lorraine, France	[SC27] Advanced energy materials derived from bijels J.A. Witt, D.R. Mumm, A. Mohraz*, <i>University of California, Irvine, USA</i>	[SC33] Repulsive van der Waals forces allow for Pickering emulsions with non-touching colloids N.A. Elbers*, J.E.S. van der Hoeven, A. van Blaaderen, <i>Utrecht University, The Netherlands</i>
14:45-15:05	[SC22] Functionalized mesoporous silica nanoparticles for one and two-photon photodynamic therapy J-O. Durand ¹ , M. Gary-Bobo ² , P. Maillard ³ , M. Blanchard-Desce ⁴ , A. Morère ² , M. Garcia ² , L. Raehm* ¹ , ¹ ICGM,CNRS-ENSCM-Universite de Montpellier, France, ² IBMM,CNRS-Universite de Montpellier, France, ³ Institut Curie,CNRS, France, ⁴ ISM, CNRS, Universite de Bordeaux, France	[SC28] Aggregation of titanate nanowires in the presence of polyelectrolytes E. Horvath ^{1,2} , L. Forro ^{1,2} , I. Szilagy ¹ , ¹ University of Geneva, Switzerland, ² EPFL, Switzerland	[SC34] Tailoring of Bijel fibers by mass transfer-induced liquid-liquid phase separation of ternary mixtures M.F. Haase*, K. Stebe, D. Lee, <i>University of Pennsylvania, USA</i>
15:05-15:25	[SC23] Deformation, orientation and bursting of microcapsules in simple shear flow: Wrinkling processes, tumbling and swinging motions H. Rehage*, S. Demand, A. Unverfehrt, <i>TU Dortmund, Germany</i>	[SC29] Fluorescence spectroscopy studies of immobilized enzymes in mesoporous silica particles P. Nabavi, B. Åkerman*, <i>Chalmers University of Technology, Sweden</i>	[SC35] On the mechanisms of colloidal self-assembly during spin-coating J.R. Howse* ¹ , D.T.W. Toolan ¹ , M. Mohamed ¹ , S. Fujii ² , S. Ebbens ¹ , ¹ University Sheffield, UK, ² Osaka Institute of Technology, Japan
15:25-15:45	[SC24] Size selective dispersion of nanoscale hydrophobic objects: lipids at interfaces J. Määttä, S. Vierros, M. Sammalkorpi*, <i>Aalto University School of Chemical Technology, Finland</i>	[SC30] Photocatalytic activity of nanoparticle-stabilized emulsions and foams T. Burdyny*, J. Riordon, D. Sinton, <i>University of Toronto, Canada</i>	[SC36] Self-oscillation of microcapsule induced by glucose recognition T. Narita*, T. Honda, H. Takakura, Y. Oishi, <i>Saga University, Japan</i>
15:45-16:10	Refreshments <i>Room: Winter Garden and Volmer Rooms I, II and III</i>		
Session Chair: Tim Still, University of Pennsylvania, Philadelphia, USA <i>Room: Grand Ball Room</i>		Session Chair: Changchun Wang, Fudan University Shanghai, China <i>Room: Amsterdam Room</i>	Session Chair: Debora Berti, University of Florence, Italy <i>Room: Foyer Room</i>
16:10-16:30	[SC37] Increase in conductivity of surfactants in dodecane with micelle size D.C. Prieve*, B.A. Yezer, A.S.	[SC42] Nanoparticulate materials for cancer theranostics A. Wu ¹ , ¹ Ningbo Institute of	[SC47] Self-assembly of active, attractive colloids in 3d L.C. Filion*, V. Prymidis, H.

	Khair, P.J. Sides, J.W. Schneider, <i>Carnegie Mellon Univ., USA</i>	<i>Materials Technology & Engineering (NIMTE), Chinese Academy of Sciences (CAS), China, ²Faculty of Chemistry, University of Marburg, China</i>	Sielcken, <i>Utrecht University, The Netherlands</i>
16:30-16:50	[SC38] Nano-liposomes: Size and morphology distributions by combined microscopy and scattering techniques S. Peretz-Damari* ¹ , O. Regev ¹ , Y. Barenholz ² , ¹ <i>Ben-Gurion University of the Negev, Israel, ²The Hebrew University-Hadassah Medical School, Israel</i>	[SC43] Porous coordination polymer nano/micromaterials and their adsorption property W.Y. Sun*, Q. Liu, J.M. Yang, L.N. Jin, <i>Nanjing University, China</i>	[SC48] A Predictive, unified model for contact angles (PUMA) for surfaces with reentrant features H. Mishra* ^{1,2} , Y. Kaufman ¹ , S-Y. Chen ¹ , A.M. Schrader ¹ , D.W. Lee ¹ , J.N. Israelachvili ¹ , ¹ <i>University of California Santa Barbara, USA, ²King Abdullah University of Science and Technology, Saudi Arabia</i>
16:50-17:10	[SC39] Nanometer-size polyoxometalates anions adsorb strongly on neutral soft surfaces P. Bauduin* ¹ , B. Naskar ¹ , V. Nardello-Rataj ¹ , O. Diat ¹ , ¹ <i>CEA, France, ²Université Lille Nord de France, France</i>	[SC44] Nanobionic architectures of photosystem I on π-system modified graphene electrodes S.C. Feifel, K.R. Stieger, F. Lisdat*, <i>Technical University of Applied Sciences Wildau, Germany</i>	[SC49] Polymer nanofoams of polymethylmethacrylate (PMMA) L. Grassberger*, K. Singh-Ghotra, R. Strey, <i>Inst. of phys. Chemistry, University of Cologne, Germany</i>
17:10-17:30	[SC40] Emulsion coarsening through molecular exchange at droplet contacts K. Roger* ¹ , U. Olsson ³ , R. Schweins ² , B. Cabane ¹ , ¹ <i>CNRS, France, ²ILL, France, ³Lund University, France</i>	[SC45] In-situ polymerization and composite formation (IPCF): A significant route for the fabrication of advanced materials K. Mallick*, M. Choudhary, <i>University of Johannesburg, South Africa</i>	[SC50] Biomimetic apatite-based colloids for diagnosis and therapeutics? An update C. Drouet, <i>CIRIMAT Carnot Institute, France</i>
17:30-17:50	[SC41] The interfacial structure of small molecule surfactant, polymeric surfactant and particle stabilised air-in-water foams P.C. Griffiths* ¹ , O. Mansour ¹ , J. Hurcom ² , ¹ <i>University of Greenwich, UK, ²Cardiff University, UK</i>	[SC46] Molecularly imprinted polymers coated on gold nanorods for the detection of target molecules by SERS R. Ahmad, A. Lamouri, P. Decorse, S. Lau, N. Felidj, L. Boubekeur-Lecaque, C. Mangeney*, <i>University Paris Diderot, France</i>	[SC51] Hollow silver and gold nanoresonators protected by a thin layer of silica for Raman analysis of surfaces H.B. Abdulrahman, J. Krajczewski, D. Aleksandrowska, A. Kudelski*, <i>Warsaw University, Poland</i>
Session Chair: Martin Malmsten, Uppsala University, Sweden Room: Grand Ball Room			
18:00-19:00	Award Lecture [AW01]- Nanotechnology assembled from colloidal and interface science Keith Johnson, <i>University of Texas Austin, USA</i>		
19:00- 19:10	Conference Announcement: Rob van Dalen, <i>Elsevier Ltd</i>		
19:30-22:00	Conference Dinner <i>Venue: De Industrieel Club</i>		

Wednesday – 24th June	
Session Chair: Gao-Qing Max Lu, University of Queensland, Australia <i>Room: Grand Ball Room</i>	
09:00-09:30	[KEY09] Functional molecular gels: Active and responsive materials <i>Beatriu Escuder, Univerity Jaume 1, Castellón De La Plana Spain</i>
09:30-10:00	[KEY10] Switchable colloidal materials <i>Yujun Feng, Sichuan University Chengdu, China</i>
10:00-10:30	[KEY11] Engineered nanostructures and model cell membranes: the role of nonspecific interactions <i>Debora Berti, University of Florence, Italy</i>
10:30-11:00	Refreshments <i>Room: Winter Garden and Volmer Rooms I, II and III</i>
Session Chair: Arthur Hubbard, Santa Barbara Science Project, USA <i>Room: Grand Ball Room</i>	
11:00-11:30	[KEY12] Colloidal hydrogel particles - Properties and uses in model systems <i>Tim Still, University of Pennsylvania, Philadelphia USA</i>
11:30-12:00	[KEY13] Stimuli-responsive polymeric nanocapsules for targeting drug delivery <i>Changchun Wang, Fudan University Shanghai, Shanghai, China</i>
12:00-12:30	[KEY14] Amphiphile self-assembly materials by design - first direct observation of thermodynamically stable internally ordered colloidal Janus particles created by amphiphile self-assembly <i>Calum Drummond, RMIT University, Australia</i>
12:30-14:00	Lunch <i>Room: Winter Garden and Volmer Rooms I, II and III</i>
Session Chair: Julian Eastoe, University of Bristol, UK <i>Room: Grand Ball Room</i>	
14:00-15:00	[PL05] Designing self-regulating, self-propelled microcapsules <i>Anna Balazs, University of Pittsburgh, USA</i>
15:00-15:30	Conference Closing