

Programme

**Faraday Discussion 167:
Mesostructure and dynamics in liquids and solutions
18-20 September, 2013
Bristol, UK**

Wednesday 18 September

11:00	Registration, Tea and Coffee
12:00	Lunch
13.45	Welcome and Introductions
14.00 Paper 1	Introductory Lecture: Hajime Tanaka* <i>University of Tokyo</i>
Session 1	Liquid-liquid phase transitions Session Chair: Alan Soper
15:00 Paper 2	The liquid-liquid transition in supercooled ST2 water: a comparison between umbrella sampling and well-tempered metadynamics Jeremy C. Palmer, Roberto Car and Pablo G. Debenedetti* <i>Princeton University</i>
Paper 3	The thermodynamical response functions and the origin of the anomalous behavior of liquid water. Francesco Mallamace*, Carmelo Corsaro, Domenico Mallamace, Cirino Vasi and H. Eugene Stanley <i>Messina University</i>
16:00	Afternoon Tea
Session 2	Structure around solutes and in mixtures Session chair: Klaas Wynne
16:30 Paper 4	Fluctuations and micro-heterogeneity in mixtures of complex liquids Aurélien Perera* and Bernarda Kezic <i>CNRS</i>
Paper 5	What happens to the structure of water in cryoprotectant solutions? James J Towey, Alan K. Soper* and Lorna Dougan <i>University of Leeds</i>
Paper 6	Distinguishing Aggregation from Random Mixing in Aqueous t-Butyl Alcohol Solutions David S Wilcox*, Blake M. Rankin, and Dor Ben-Amotz <i>Purdue University</i>
18:00	Poster Session and Wine Reception
19:30	Dinner

Thursday 19 September

Session 2	Structure around solutes and in mixtures Session chair: Klaas Wynne
9:00 Paper 7	Linking molecular/ion structure, solvent mesostructure, the solvophobic effect and the ability of amphiphiles to self-assemble in non-aqueous liquids Emmy C. Wijaya, Tamar L. Greaves and Calum J. Drummond* <i>CSIRO</i>
Paper 8	Mesoscale inhomogeneities in aqueous solutions of small amphiphilic molecules Deepa Subramanian, Christopher T. Boughter, Jeffery B. Klauda, Boualem Hammouda, and Mikhail Anisimov* <i>University of Maryland, College Park</i>
10:00	Morning Tea
Session 3	Structure near interfaces Session Chair: Steve Meech
10:30 Paper 9	Exploring the Behaviour of the Hydrated Excess Proton at Hydrophobic Interfaces Revati Kumar, Chris Knight, and Gregory A Voth* <i>University of Chicago</i>
Paper 10	Monolayer and bilayer structures in ionic liquids and their mixtures confined to nanofilms Alexander M. Smith, Kevin R. J. Lovelock and Susan Perkin* <i>Oxford University</i>
Paper 11	A comparative study on bulk and nanoconfined water by time-resolved optical Kerr effect spectroscopy Andrea Taschin, Paolo Bartolini, Agnese Marcelli, Roberto Righini and Renato Torre* <i>European Lab. for Non-Linear Spectroscopy (LENS), University of Firenze</i>
12:00	Lunch
13:00 Paper 12	Liquid Organization and Solvation Properties at Polar Solid/Liquid Interfaces Eric A. Gobrogge, Lauren Woods, Robert A. Walker* <i>Montana State University</i>
Paper 13	Dynamics and vibrational spectroscopy of water at hydroxylated silica Surface Prashant Kumar Gupta and Markus Meuwly* <i>University of Basel</i>
Session 4	Crystal nucleation Session chair: David Wales
14:00 Paper 14	Low-density liquid water is the mother of ice: on the relation between mesostructure, thermodynamics and ice crystallization in solutions. Griffin Bullock and Valeria Molinero* <i>University of Utah</i>
Paper 15	The Microscopic Features of Heterogeneous Ice Nucleation May Affect the Macroscopic Morphology of Atmospheric Ice Crystals

	Stephen Cox*, Zamaan Raza, Shawn M. Kathmann, Ben Slater and Angelos Michaelides <i>University College London</i>
15:00	Afternoon tea
15:30 Paper 16	Lifetimes and Lengthscales of Structural Motifs in a Model Glassformer Alex Malins, Jens Eggers, Hajime Tanaka and Christopher Royall* <i>University of Bristol</i>
Paper 17	Populations and size distributions of solute-rich mesospecies within mesostructured aqueous amino acid solutions Anna Jawor-Baczynska , Barry D. Moore, Han Seung Lee, Alon V. McCormick and Jan Sefcik* <i>University of Strathclyde</i>
Paper 18	Second-harmonic scattering in aqueous urea solutions: evidence for solute clusters? Martin R. Ward, Stanley W. Botchway, Andrew D. Ward and Andrew J. Alexander* <i>University of Edinburgh</i>
17:00	Close of sessions
19:00	Pre-Dinner Drinks
19:30	Conference Dinner

Friday 20 September

Session 5	Mesoscopic structure in pure liquids Session chair:
09:00 Paper 19	Corresponding states for mesostructure and dynamics of supercooled water David T. Limmer and David Chandler* <i>University of California Berkeley</i>
Paper 20	Mesoscopic structural organization in triphasic room temperature ionic liquids. Olga Russina, Fabrizio Lo Celso, Marco Di Michiel, Stefano Passerini, Giovanni Battista Appetecchi, Franca Castiglione, Andrea Mele, Ruggero Caminiti and Alessandro Triolo* <i>Istituto Struttura della Materia</i>
Paper 21	Individual gold nanorods report on dynamical heterogeneity in supercooled glycerol Haifeng Yuan, Saumyakanti Khatua, Peter Zijlstra and Michel Orrit* <i>University of Leiden</i>
10:30	Morning Coffee
11:00 Paper 22	Water's Non-Tetrahedral Side Richard Henchman* and Stuart J. Cockram <i>The University of Manchester</i>

Paper 23	The Structure Features of Solvents near the Critical Isotherms A. Idrissi*, M. Kiselev, S. Krishtal, I. Vyalov, R. Oparin, E. Vorobyev , L. Dubois <i>Université de Lille1 Sciences et Technologies</i>
Paper 24	A mesoscopic model for the rheology of soft amorphous solids, with application to microchannel flows Alexandre Nicolas and Jean-Louis Barrat* Universite Joseph Fourier
	Close of sessions
12:30	Concluding remarks lecture Austen Angell* <i>Arizona State University</i>
13:15	Acknowledgements
13:30	Close of Meeting and Lunch