

## Program

Wednesday 21 November

- 15:00 – 17:50 Registration (Plaza50)
- 18:00 – 18:15 Opening (Room 831)
- 18:15 – 19:00 **Plenary Lecture** (Room 831)  
[Chair: Masaru Nakahara]  
What has been clarified by Japanese scientists and what remains unsolved ahead of us in the field of solution chemistry  
Hiroyasu Nomura
- 19:00 – 21:00 Reception (Cafeteria 2F)

Thursday 22 November

- 9:00 – 11:00 **General 1** (Room 831)  
[Chair: Philippe A. Bopp]
- A01L New Trends in Structural Characterization of Supramolecular Architectures in Solution Phase  
Gábor Pálinkás
- A02L On the Solvation of Complexly Shaped Molecules: The Morphometric Approach  
Roland Roth
- A03T Towards a Statistical Mechanical Theory for Water: Analytic Theory for a Non-Speculative Reference Model and Its Anomalies  
Ivo Nezbeda
- A04T Approach of Rheo-Optical Spectroscopy by Means of Polarization Analysis of a Diffracted Light by a Longitudinal Ultrasound  
Tatsuro Matsuoka, Junki Miyashita, Shinobu Koda
- A05T Influence of Diffusion on Bimolecular Reaction Rates: Why Are the Diffusion Coefficients Obtained from the Transient Effect of Bimolecular Fluorescence Quenching Reaction Smaller than Those Obtained from Conventional Methods?  
Toshihiro Tominaga, Sanjay Pant, Hiroyasu Ohtaka-Saiki, Makoto Takezaki, Andrew Scully, Satoshi Hiayama
- 11:00 – 11:30 Coffee Break
- 11:30 – 13:00 **Ionic Liquids 1** (Room 831)  
[Chair: Renzo Vallauri]
- B01L Cooperative Dynamics of Mixtures of Ionic Liquids with Polar Solvents  
Richard Buchner
- B02T Corresponding States Analysis and Criticality of the Liquid-Liquid Phase Transition of Ionic Liquids in Solution  
Wolfram Schröer, Dragos Saracsan, Anna Butka, Vlad Vale
- B03T Molecular and Liquid Structures of Low-viscosity Room Temperature Ionic Liquid, 1-Ethyl-3-methylimidazolium Bis(fluorosulfonyl) Imide  
Kenta Fujii, Shiro Seki, Shuhei Fukuda, Toshiyuki Takamuku, Shinji Kohara, Yasuo Kameda, Yasuhiro Umabayashi, Shin-ichi Ishiguro
- B04T  $^7\text{Li}$  NMR Studies on Exchange Reaction of Lithium Ion with Cryptand C211 in *N,N*-dimethyl-*N*-methyl-*N*-(2-methoxyethyl)ammonium Bis-(trifluoromethylsulfonyl)imide  
Atsushi Shirai, Yasuhisa Ikeda





Saturday 24 November

9:00 – 10:50	<b>Biomolecular Solutions 1</b>	(Room A201) [Chair: Masahide Terazima]
F01L	Hydration and Volumetric Properties of Unfolded Polypeptides <u>Tigran V. Chalikian</u>	
F02T	Hydrogen-Bonding Strengths of the Water in Aqueous Solutions of Polypeptides Probed by $\nu(\text{O-D})$ in IR and $\delta_{\text{H}_2\text{O}}$ in NMR <u>Kazuko Mizuno</u>	
F03T	Effects of Complex Sugar and Salt Solutions on Biopolymers: An in Silico Study <u>Maxim V. Fedorov</u> , Jonathan M Goodman, Stephan Schumm	
F04T	Heat Capacity of Protein and Hydration Entropy Hitomi Kitazato, <u>Masayuki Irisa</u>	
F05T	Evidence of Hyper-Mobile Water: Enhanced Proton Diffusion Coefficients in F-Actin Solutions with Bound Myosin S1 by PFG-SE NMR <u>Makoto Suzuki</u> , Xinying Gan, Tetsuichi Wazawa, Takashi Miyazaki	
10:50 – 11:20	Coffee Break	
11:20 – 12:50	<b>Biomolecular Solutions 2</b>	(Room A201) [Chair: Tigran V. Chalikian]
F06L	Role of Cell Membrane in General Anaesthetic Action <u>P. L. Chau</u>	
F07T	Protein-Protein Interaction and Its Implication in Medical Application of Artificial Blood Substitutes <u>Takaaki Sato</u> , Hiromi Sakai, Keitaro Sou, Teruyuki Komatsu, Akito Nakagawa, Otto Glatter, Richard Buchner, Eishun Tsuchida	
F08T	Conformational Dynamics of Mg:ADP/Mg:ATP and $\text{Mg}^{2+}$ Coordination Dynamics in F1-ATPase and Other Molecular Motors <u>Alexe Bojovschi</u> , Ming S. Liu, Richard Sadus	
F09T	Time-resolved Thermodynamics and Diffusion for Detecting Conformation Changes during Functions of Biological Proteins Yusuke Nakasone, Takeshi Eitoku, Daisuke Matsuoka, Satoru Tokutomi, <u>Masahide Terazima</u>	
12:50 – 14:00	Lunch	
14:00 – 16:00	<b>Poster 2 – Even Number</b>	(Oasis)
16:00 – 16:30	Coffee	
16:30 – 17:30	<b>Award Lecture</b> <b>Distinguished Research Award in Solution Chemistry</b>	(Room A201)
	[Chair: Fumio Hirata] Spectroscopic Study on Solvation, Reaction and Molecular Dynamics in Supercritical Fluids <u>Yoshifumi Kimura</u>	
	Solution Chemistry of Supercritical Water through Development of High-Temperature NMR Spectroscopy and Solution Theory <u>Nobuyuki Matubayasi</u>	
17:30 – 18:10	Assembly SSCJ30	(Room A201)
18:10 – 18:50	Assembly EMLG/JMLG	(Room A201)
19:00 – 21:00	Banquet	(Restaurant 16F)

Sunday 25 November

- 9:00 – 10:50      **General 3**      (Room A201)  
[Chair: Gábor Pálincás]
- G01L      Molecular Dynamics Simulations of Aqueous LiCl Solutions: Concentration and Model Dependence  
Kazuyasu Ibuki, Philippe A. Bopp
- G02T      The Structure of Aqueous Rb and Cs Halide Solutions from Reverse Monte Carlo Modelling of  
Diffraction Data  
Laszlo Pusztai
- G03T      The Nature of Chemical Bond in Solvated Systems: An Analysis Based on the New Resonance Theory  
Atsushi Ikeda, Hirofumi Sato, Shigeyoshi Sakaki
- G04T      Comparison of the Application of Specific Ion Interaction and Debye-Hückel Theories for the  
Tungsten(VI) Complexes with EDDA and NTA  
Kavosh Majlesi
- G05T      Stability and Structure of the Ternary Complexes of La(III) with Beta-Diketone and Polyethers in  
Solution  
Gene Frederick Gagabe, Keiichi Satoh, Kiyoshi Sawada
- 10:50 – 11:20      Coffee Break
- 11:20 – 13:00      **Liquids under Extreme Conditions 1**      (Room A201)  
[Chair: Pavel Jungwirth]
- H01L      Peculiar Structural and Dynamic Properties of Hydration Water. A Liquid-Liquid Transition  
M.-C. Bellissent-Funel
- H02L      Nature of Liquid-Liquid Transition in Single-Component Molecular Liquids  
Hajime Tanaka
- H03T      Coupling/Decoupling between Translational and Rotational Motions in Supercooled Molecular Liquid  
Song-Ho Chong, Walter Kob
- H04T      Structure of Supercooled Water  
Haruhiko Yokoyama, Miyoko Kannami, Hitoshi Kanno
- 13:00 – 14:20      Lunch      (Cafeteria 1F)
- 14:20 – 15:50      **Liquids under Extreme Conditions 2**      (Room A201)  
[Chair: Nobuyuki Matubayasi]
- H05L      New Insight on Aqueous Solution by Spectroscopy Analysis: Raman, XAS, IXS, SAXS and WAXS  
Jean-Louis Hazemann
- H06T      Polarized and Depolarized Raman Scattering Spectra of Supercritical Water  
Yasunori Tominaga, Mika Murai, Yuko Amo
- H07T      Neutron Diffraction with Isotope Substitution of Supercritical Methanol-Water Mixture  
Koji Yoshida, Yu Sakai, Shigeru Ishida, Daniel Bowron, Toshio Yamaguchi
- H08T      New Acoustic and Fibre Optic Approaches to Probing of High-Pressure and High-Temperature Media  
Vladimir K. Popov, Victor N. Bagratashvili, Yuri E. Gorbaty, Alexey N. Konovalov, Toshio Yamaguchi
- 15:50 – 16:00      Closing