

EMLG-JMLG Annual Meeting 2010

Complex liquids

**Modern trends in exploration,
understanding and application**

Programme

September 5–9, 2010

Lviv, Ukraine

Monday, September 6, 2010

1st Morning Session 9.00 – 10.45

9.00 – 9.20 **Opening address**

Chaired by RICHARD BUCHNER

9.20 – 10.05 **Polyelectrolytes in water: How the presence of hydrophobic groups modifies the ion-specific effects**
VOJKO VLACHY, University of Ljubljana, Slovenia

10.05 – 10.25 **Chemical reactions of biological proteins in solution by time-resolved diffusion method**
MASAHIDE TERAZIMA, Kyoto University, Japan

10.25 – 10.45 **Aqueous alkali halide solutions: can osmotic coefficients be explained on the basis of the ionic sizes alone?**
YURIY KALYUZHNYI, Institute for Condensed Matter Physics, NAS of Ukraine, Lviv, Ukraine

10.45 – 11.15 COFFEE

Monday, September 6, 2010

2nd Morning Session 11.15 – 13.00

Chaired by PHILIPPE BOPP

11.15 – 12.00 **Thermal behavior, structure and dynamics of liquids and electrolyte solutions confined in mesoporous materials**

TOSHIO YAMAGUCHI, Fukuoka University, Japan

12.00 – 12.20 **One- and two-mode behavior of the $\nu(\text{C}=\text{O})$ band in N,N-dimethylformamide isotopic mixtures: DMF/DMF-d₁, DMF/DMF-d₆, and DMF/DMF-¹³C**

MARIA GRAZIA GIORGINI, Università di Bologna, Italy

12.20 – 12.40 **Scaled particle theory for a hard-sphere fluid confined in different model matrices**

WEI DONG, Ecole Normale Supérieure de Lyon, France

12.40 – 13.00 **Transient absorption and fluorescence measurements of polymer liquids and gels**

WOJCIECH GADOMSKI, University of Warsaw, Poland

13.30 – 15.00 LUNCH

Monday, September 6, 2010

1st Afternoon Session 15:00 – 17:00

Chaired by HAJIME TORII

- 15.35 – 16.20 **Critical casimir forces**
SIEGFRIED DIETRICH, Max Planck Institut for Metals Research, Stuttgart, Germany
- 16.20 – 16.40 **Dipolar interaction and molecular ordering in liquid propylene carbonate: anomalous dielectric susceptibility and Raman non-coincidence effect**
ALEXANDER BRODIN, National Techn. Univ. of Ukraine “Kyiv Polytechnic Institute”, Ukraine
- 16.40 – 17.00 **Viscosity calculations of simple liquids using the transient time correlation function formalism**
ISTVÁN BORZSHÁK, Nyugat-magyarországi Egyetem, Szombathely, Hungary
- 17.00 – 17.30 COFFEE

Monday, September 6, 2010

2nd Afternoon Session 17.30 – 18.55

Chaired by RALF LUDWIG

- 17.30 – 18.15 **Transport coefficients: a path to explore convex (colloidal and polyelectrolyte solutions) and concave (clays, porous media) systems**
PIERRE TURQ, Université Pierre et Marie Curie, Paris, France
- 18.15 – 18.35 **Shear relaxation and ionic transport of imidazolium-based ionic liquids**
TSUYOSHI YAMAGUCHI, Nagoya University, Japan
- 18.35 – 18.55 **Understanding the solubility of gases in ionic liquids from molecular simulations**
DANIELA KERLÉ, University of Rostock, Germany

Tuesday, September 7, 2010
Morning Session 9.00 – 10.45

Chaired by GABOR PALINKAS

- 9.00 – 9.45 **Inelastic X-Ray Scattering study of the high frequency dynamics in liquids**
GIANCARLO RUOCCO, “Sapienza” Università di Roma, Italy
- 9.45 – 10.05 **First-principles molecular dynamics simulations of supercritical water: the importance of dispersion corrections**
ARI PAAVO SEITSONEN, University of Zurich, Switzerland
- 10.05 – 10.25 **Intermolecular charge flux induced by the OH stretching mode of water and its effect on the intermolecular vibrational coupling**
HAJIME TORII, Shizuoka University, Japan
- 10.25 – 10.45 **Breast cancer diagnosis and dynamics of lipids by Raman imaging and femtosecond spectroscopy**
HALINA ABRAMCZYK, Technical University of Łódź, Poland
- 10.45 – 11.15 COFFEE

11.00 – 13.00 POSTER SESSION

Chaired by: MICHAEL PROBST

13.30 – 15.00 LUNCH

15.00 – 18.00 EXCURSION

Wednesday, September 8, 2010
1st Morning Session 9.00 – 10.45

Chaired by TOSHIO YAMAGUCHI

- 9.00 – 9.45 **Statics and dynamics of colloidal particles in liquid crystals**
OLEG LAVRENTOVICH, Kent State University, Kent, Ohio, USA
- 9.45 – 10.05 **Multiscale simulations of the self-assembly of liquid crystalline dendrimers**
JAROSLAV ILNYTSKYI, Institute for Condensed Matter Physics, NAS of Ukraine, Lviv, Ukraine
- 10.05 – 10.25 **Influence of molecular size and shape of the nematogenic substances on the liquid crystal phase equilibrium**
SANTIAGO LAGO, University Pablo de Olavide, Seville, Spain
- 10.25 – 10.45 **Dispersions of multiwalled carbon nanotubes in liquid crystals: new challenges to molecular theories of anisotropic soft matter**
LONGIN LISETSKI, Institute for Scintillation Materials, NAS of Ukraine, Kharkiv, Ukraine
- 10.45 – 11.15 COFFEE

Wednesday, September 8, 2010

2nd Morning Session 11.15 – 13.00

Chaired by WOJCIECH GADOMSKI

- 11.15 – 12.00 **Statistical mechanics of molecular liquids reveals elementary processes in life phenomena**
FUMIO HIRATA, Institute for Molecular Science, Okazaki, Japan
- 12.00 – 12.20 **Simple lattice models of complex systems**
ALINA CIACH, Institute of Physical Chemistry, PAS, Warsaw, Poland
- 12.20 – 12.40 **Theoretical and simulation results for some model simple fluids (bulk and confined) with structural, thermodynamic and dynamic anomalies**
OREST PIZIO, Instituto de Quimica, UNAM, Mexico City, Mexico
- 12.40 – 13.00 **An equilibrium study of urea denaturation of trp-cage miniprotein**
DIETMAR PASCHEK, Universität Rostock, Germany
- 13.30 – 15.00 LUNCH

Wednesday, September 8, 2010

Afternoon Session 15.30 – 17.15

Chaired by HALINA ABRAMCZYK

- 15.30 – 16.15 **Stimuli-responsive nanostructured materials**
SERGIY MINKO, Clarkson University, Potsdam, New York, USA
- 16.15 – 16.35 **The liquid-liquid phase transitions in ionic solutions: criticalität, crossover and complete scaling**
WOLFFRAM SCHRÖER, University of Bremen, Germany
- 16.35 – 16.55 **Effect of methanol on microphase separation of ionic liquids**
TOSHIYUKI TAKAMUKU, Saga University, Japan
- 16.55 – 17.15 **Diffusion of imidazolium based ionic liquids in different polar solvents**
ELIANE SCHMIDT, University of Rostock, Germany
- 19.00 – 22.00 BANQUET

Thursday, September 9, 2010

1st Morning Session 9.00 – 11.00

Chaired by IGOR MRYGŁOD

- 9.00 – 10.00 **Supramolecular chemistry for molecular liquids, solutions and assemblies**
JEAN-MARIE LEHN, Université de Strasbourg and Collège de France, Paris, France
- 10.00 – 10.20 **Entropy driven self-assembly mechanism**
MARCELO LOZADA-CASSOU, Mexican Petroleum Institute, Mexico City, Mexico
- 10.20 – 10.40 **Microheterogeneity of alcohol-water mixtures: experimental and simulation study**
FRANJO SOKOLIĆ, University of Split, Croatia
- 10.40 – 11.00 **Nanosize supramolecular aggregates in methanol: from melting point to supercritical state**
VLADIMIR DUROV, Moscow State University, Russia
- 11.00 – 11.30 COFFEE

Thursday, September 9, 2010

2nd Morning Session 11.30 – 13.15

Chaired by MYROSLAV HOLOVKO

- 11.30 – 12.15 **Multiscale methods for nanochemistry and biophysics in solution**
ANDRIJ KOVALENKO, National Institute for Nanotechnology, Edmonton, Canada
- 12.15 – 12.35 **Towards calculation of hydration free energy**
VOLODYMYR SERGIIEVSKYI, Max-Planck-Institute for Mathematics in the Sciences, Leipzig, Germany
- 12.35 – 12.55 **On the structure of aqueous electrolyte solutions**
LASZLO PUSZTAI, Research Institute for Solid State Physics and Optics, HAS, Budapest, Hungary
- 12.55–13.15 **EMLG-JMLG assembly**
- 13.30 – 15.00 LUNCH