

Registration, welcome party and all the sessions on Tuesday, Wednesday and Thursday will be in the Conference Centre of the Institute of the Bioorganic Chemistry of the Polish Academy of Sciences, Wieniawskiego street No 17/19.

Posters should be displayed from Tuesday morning until end of the conference.

All Monday sessions will be in the Faculty of Physics of the Adam Mickiewicz University in the university campus "Morasko" located at Umultowska street No 85. Special buses will take the participants from the Conference Centre and from the student dormitory in the morning and bring them back in the evening.

### **Sunday, September 3, 2006**

Conference Centre of the Institute of the Bioorganic Chemistry of PAS

14:00 – 21:00 Arrival and Registration,

18:30 – 21:00 Welcome party (buffet)

### **Monday, September 4, 2006**

Faculty of Physics of the Adam Mickiewicz University

8:00 Departure of buses from the Conference Centre and from the Student Dormitory DS6 to Faculty of Physics of the Adam Mickiewicz University (campus "Morasko")

9:00 – 9:15 **OPENING CEREMONY**

#### **Session I: Relaxations in confined geometry**

Chairman: John Berberian

9:15 – 9:45 **Andreas Schönhals** "Molecules in nanometre confinement investigated by dielectric and related methods" (IL)

9:45 – 10:05 **Fouad Aliev** "Relaxation and glass transition in filled and confined polymers"

10:05 – 10:25 **Apostolos Kyritsis** „Molecular dynamics of poly(oxybutylene)s in 2D confinement"

10:25 – 10:45 **Giorgio Schiro** "Dynamic properties of solvent confined in silica hydrogel studied by broadband dielectric spectroscopy"

10:45 – 11:05 **Sebastian Pawlus** "Effect of silica aerosil dispersion on the relaxation properties of glassforming liquids"

11:05 – 11:25 Coffee break

#### **Session II: Dynamics in disordered systems**

Chairman: George Floudas

11:25 – 12:05 **Yuri Feldman** "Space and time scaling in the spanned H-bonded networks" (PL)

12:05 – 12:25 **Maria Massalska-Arodz** „Organic glass-formers as studied by complementary methods"

12:25 – 12:45 **R.J. Sengwa** "Dielectric dispersion study of chain dynamics of poly(vinyl pyrrolidone)–glycerol blends"

12:45 – 15:00 Lunch and visiting of laboratories at Faculty of Physics of UAM

#### **Session III dedicated to memory of Andrew Jonscher: Relaxation theories**

Chairwoman: Karina Weron

15:00 – 15:40 **Joseph Klafter** "Anomalous Subdiffusion Revisited" (PL)

15:40 – 16:10 **Vladimir Stephanovich** "The physical mechanisms of relaxation time distribution in inorganic and organic relaxor ferroelectrics" (IL)

16:10 – 16:30 **Vairis Shtrauss** "Digital estimators of relaxation spectra"

16:30 – 17:00 **Karina Weron** "Wait-and-switch model of the non-Debye relaxation" (IL)

17:00 – 17:20 Coffee break

**Session IV: Polarization and space-charge phenomena**

Chairman: Jozef Swiatek

- 17:20 – 17:50 **Axel Mellinger** “*Thermal-pulse tomography of space-charge and polarization distributions in electret polymers*” (IL)
- 17:50 – 18:10 **Jan van Turnhout** “*High resolution spectroscopy of activation energies and trap depths in electrets using differential sampling*”
- 18:10 – 18:30 **Carmo Lanca** “*Space charge analysis of electrothermally aged XLPE cable insulation*”
- 18:30 – 19:00 **Stefan Jurga** “*NMR Relaxation in Soft Materials*” (IL)
- 19:00 – 20:00 *Dinner*
- 20:00 – 20:45 **Axel Mellinger** “*Stars, Dust and Megabytes: Astrophotography in the Southern Hemisphere*”

**Tuesday, September 5, 2006**

Conference Centre of the Institute of the Bioorganic Chemistry of PAS

**Session V dedicated to memory of Tadeusz Pakula: Dynamics in polymers and liquid crystals**

Chairman: Kia Ngai

- 8:30 – 9:00 **George Floudas** “*Origin of glass transition in polypeptides*”
- 9:00 – 9:20 **Simone Capaccioli** “*Dynamics of liquid crystals and polymer melts under shear flow studied by the rheo-dielectric technique*”
- 9:20 – 9:40 **Piotr Polanowski** “*Investigation of diffusion limited aggregation in frame of the dynamic lattice liquid model*”
- 9:40 – 10:00 **Michal Mierzwa** “*Changes of relaxation dynamics of a hydrogen-bonded glass-former after removal of the hydrogen bonds*”
- 10:00 – 10:20 **Daniele Prevosto** “*Secondary dynamics in glass formers: relation with the structural process and the glass transition*”
- 10:20 – 11:00 **Kia Ngai** “*Predicting the changes of relaxation dynamics with various modifications of the chemical and physical structures of glass-formers*” (PL)
- 11:00 – 11:20 *Coffee break*

**Session VI: Thin polymer films**

Chairman: Ryusuke Nozaki

- 11:20 – 12:00 **Friedrich Kremer** “*Diverging glass transitions in thin polymer films*” (PL)
- 12:00 – 12:30 **Michael Wübbenhorst** “*The role of tacticity and conformation regularity in ultra-thin PS films on the glass transition dynamics*” (IL)
- 12:30 – 12:50 **Koji Fukao** “*Relaxation of volume and dielectric constant during aging process in thin polystyrene films*”
- 13:00 – 15:00 *Lunch*
- 15:00 → *Departure of the buses from the Conference Centre: Excursion to the Kórnik Castle and Arboretum; Chamber Concert in the Castle, Conference Dinner(outdoor party)*

**Wednesday, September 6, 2006**

Conference Centre of the Institute of the Bioorganic Chemistry of PAS

**Parallel Session A****Session VII A: Relaxations in semicrystalline and heterogeneous polymer systems**

Chairwoman: Gisele Boiteux

- 8:30 – 9:00 **Isabelle Stevenson** “*Morphology effects on the dynamics of amorphous and semicrystalline PEN*” (IL)
- 9:00 – 9:20 **Andreas Wurm** “*Simultaneous measurements of thermal and dielectric properties as well as SAXS/WAXS experiments during polymer crystallization*”

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- 9:20 – 9:40 **Simone Napolitano** “Monitoring the crystallization kinetics of biodegradable ultrathin polymer films via dielectric spectroscopy”
- 9:40 – 10:00 **Galder Kortaberria** “Curing of an epoxy resin modified with nanoclay monitored by dielectric spectroscopy and rheological measurements”
- 10:00 – 10:20 **Angel Alegria** “Dielectric secondary relaxation and phenylene ring dynamics in bisphenol-a polycarbonate”
- 10:20 – 10:50 **Polycarpos Pissis** “Dielectric studies of interfacial effects in polymer nanocomposites” (IL)
- 10:50 – 11:10 *Coffee break*

### Session VIII A: New theoretical and methodological developments

Chairman: Jan van Turnhout

- 11:10 – 11:40 **Rudolf Hilfer** “Applications of fractional calculus to dielectric relaxation” (IL)
- 11:40 – 12:10 **Raoul Nigmatullin** “General theory of dielectric relaxation based on the fractional kinetics: reduction of a set of micromotions to collective motions on the mesoscale region” (IL)
- 12:10 – 12:30 **Ryusuke Nozaki** “Broadband dielectric spectroscopy up to 20 GHz for thin dielectrics”
- 12:30 – 12:50 **Anatoli Serghei** “Broadband dielectric spectroscopy on ultra-thin polymer films with only one attached electrode”
- 12:50 – 13:10 **Baliram Lone** “Dielectric properties of butan-1-ol with acetic acid using time domain technique”
- 13:10 – 15:00 *Lunch*

### Parallel Session B

#### Session VII B: Ion conducting materials

Chairman: Kazimierz Orzechowski

- 8:30 – 9:00 **Bernhard Roling** “Nanoscopic characterisation of ion transport in solid electrolytes by means of electrostatic force spectroscopy” (IL)
- 9:00 – 9:20 **Michal Marzantowicz** “Conductivity and dielectric properties of polymer electrolytes PEO:LiN(CF<sub>3</sub>SO<sub>2</sub>)<sub>2</sub> near glass transition”
- 9:20 – 9:40 **James Runt** “Ion mobility and mobile ion concentration of single-ion polymer electrolytes via dielectric spectroscopy: modeling electrode polarization”
- 9:40 – 10:00 **Takeo Furukawa** “Dielectric and conductive relaxations in ionically and electronically conducting polymer composites”
- 10:00 – 10:20 **Gunnar Niklasson** “Charge transport between localised states in lithium-intercalated amorphous tungsten oxide”
- 10:20 – 10:40 **Francois Henn** “Dielectric relaxation strength in ion conducting glasses caused by cluster polarization”
- 10:40 – 11:00 *Coffee break*

#### Session VIII B: Aqueous systems

Chairman: Gunnar Niklasson

- 11:00 – 11:20 **John Fontanella** “Effect of pressure on the water relaxation in Ultem® polyetherimide”
- 11:20 – 11:40 **Silvina Cerveny** “Dielectric properties of water in amorphous mixtures of polymers, sucrose and other glass forming materials”
- 11:40 – 12:00 **Shin Yagihara** “Application of  $\tau$ - $\beta$  diagram obtained from dielectric spectroscopy for solvent in various mixtures”
- 12:00 – 12:20 **Kazimierz Orzechowski** “Non-linear dielectric effect in ice and ice clathrates”
- 12:20 – 12:40 **Alexander Lileev** “Microwave dielectric properties and molecular-kinetic state of water in aqueous solutions of acids and bases”
- 12:40 – 13:00 **David Currie** “Prediction of physical properties of cell suspensions using dielectric spectroscopy”
- 13:10 – 15:00 *Lunch*

**Session IX: Ferroelectrics and liquid crystals (I)**

Chairwoman: Bozena Hilczer

15:00 – 15:30 **Marek Szafranski** “Dielectric response of organic-inorganic crystals with different long-range order” (IL)15:30 – 15:50 **Paul Ben Ishai** „*The ferroelectric phase transition in ktn - percolation as the dominant dynamic feature*”15:50 – 16:10 *Coffee break***Session X: Ferroelectrics and liquid crystals (II)**

Chairman: Czeslaw Pawlaczyk

16:10 – 16:40 **Jan Lagerwall** “*Dielectric spectroscopy investigations of carbon nanotube-doped liquid crystals*” (IL)16:40 – 17:10 **Jan Petzelt** “*Effective dielectric response in inhomogeneous high-permittivity dielectrics*” (IL)17:10 – 17:30 **Alexander Naberezhnov** “*Ferroelectrics in confinement*”**Session XI: Poster Session**

17:30 – 19:00 Authors should be present at their posters

19:00 – 21:00 Discussion at posters and Dinner (buffet)

20:30 → Meeting of the Advisory Board

**Thursday, September 7, 2006***Conference Centre of the Institute of the Bioorganic Chemistry of PAS***Session XII: Charge transport phenomena**

Chairman: Gerard Seytre

8:30 – 9:00 **Luca Valentini** “*Dielectric relaxation mechanism of single-walled carbon nanotubes epoxy composites*” (IL)9:00 – 9:20 **Godfrey Sauti** “*Impedance and modulus spectra for a percolation system*”9:20 – 9:40 **David McLachlan** “*Universal behaviour in the AC conductivity of disordered and percolation systems*”9:40 – 10:00 **Stanislav Nespurek** “*Polarons in wide band-gap materials: polysilanes*”10:00 – 10:30 **Jiri Pflieger** “*Photoelectrochemical behavior of TiO<sub>2</sub>/polythiophene cells prepared by electrophoretic deposition*” (IL)10:30 – 10:40 **IDS-Prize Ceremony**10:30 – 10:50 *Coffee break***Session XIII: Relaxations in complex systems**

Chairman: Jacek Ulanski

10:50 – 11:20 **Gisele Boiteux** „*Relaxations in complex polymer systems*” (IL)11:20 – 11:40 **Khadra Kessairi** „*Effect of the temperature and the pressure on the structural ( $\alpha$ -) and the true Johari-Goldstein ( $\beta$ -) relaxation in binary miscible blends*”11:40 – 12:00 **Estrella Laredo** „*Segmental dynamics in nanophase segregated comb-like polymers with long side-chains*”12:00 – 12:20 **Gamal Turkey** „*Molecular mobility of liquid crystalline polymethacrylates with biphenyl side groups*”12:20 – 13:00 **Closing Remarks**13:00 – 15:00 *Lunch*15:00 – 19:00 *Meeting of the Internal Project “Nanomaterials for opto-electronic applications” – concerns only partners from NoE “NANOFUN-POLY”*