

## PROGRAM OF THE CONTRIBUTED PAPERS

June 27

### SECTION 1

**Auditorium B2**

*Chairs: Walter Richtering, Anatoly Zinchenko*

**16<sup>30</sup> – 16<sup>45</sup>** Guilherme A. Ferreira, Lennart Piculell, Watson Loh CONTROLLING THE INTERNAL STRUCTURE OF CORE-SHELL AGGREGATES FORMED BY BLOCK COPOLYMER-SURFACTANT COMPLEX SALTS DISPERSED IN AQUEOUS MEDIUM

**16<sup>45</sup> – 17<sup>00</sup>** Andrey Sybachin, Olga Zaborova, Anna Efimova, Alexander Yaroslavov SELF-ASSEMBLY OF ANIONIC LIPOSOMES ON POLYCATIONIC BRUSHES

**17<sup>00</sup> – 17<sup>15</sup>** Evgenii Lysenko, Pavel Chelushkin, Alevtina Kulebyakina, Tatiana Bronich, Alexander Kabanov POLYELECTROLYTE MICELLES WITH CHEMICALLY HETEROGENEOUS CORONA IN AQUEOUS MEDIA: SELF-ASSEMBLY PHENOMENON AND COMPLEXATING PROPERTIES

**17<sup>15</sup> – 17<sup>30</sup>** Artem Zhirnov, Elena Chernikova, Ekaterina Litmanovich THE INFLUENCE OF CHAIN MICROSTRUCTURE ON SOLUTION BEHAVIOR AND ADSORPTION OF 4-VINYL PYRIDINE AND ACRYLIC ACID COPOLYMERS

**17<sup>30</sup> – 17<sup>45</sup>** Dörte Bütergerds, Cornelia Cramer, Monika Schönhoff pH-DEPENDENT GROWTH BEHAVIOR OF POLYELECTROLYTE MULTILAYERS

**17<sup>45</sup> – 18<sup>00</sup>** Markus Hansch, Ralf Schweins, Sylvain Prévost, Hans-Peter Kaup, Klaus Huber PHASE BEHAVIOR OF SALTS FROM MULTI-VALENT METAL CATION AND ANIONIC POLYELECTROLYTES IN WATER

**18<sup>00</sup> – 18<sup>15</sup>** Claudia Dähling, Dmitry V. Pergushov, Felix A. Plamper TEMPERATURE-INDUCED STRUCTURE SWITCH IN THERMO-RESPONSIVE MICELLAR INTERPOLYELECTROLYTE COMPLEXES: TOWARD DIFFERENT MORPHOLOGIES

**18<sup>15</sup> – 18<sup>30</sup>** Josip Požar, Jasmina Salopek, Davor Kovačević COMPLEXATION BETWEEN POLYALLYLAMMONIUM CATION AND POLYSTYRENE ANION; THE EFFECT OF IONIC STRENGTH AND ELECTROLYTE TYPE

**18<sup>30</sup> – 18<sup>45</sup>** Guofeng Xu, Shuangjiang Luo, Qingbo Yang, Jiang Zhao POLYELECTROLYTE CHAINS AT EXTREME DILUTION: CONFORMATION AND COUNTERIONS

### SECTION 2

**Auditorium B3**

*Chairs: Murugappan Muthukumar, Kurt Kremer*

**16<sup>30</sup> – 16<sup>45</sup>** Georges Pavloy CONFORMATIONS OF LINEAR CHARGED CHAINS AT DIFFERENT IONIC STRENGTHS THROUGH THE VISCOUS FLOW OF THEIR DILUTE SOLUTIONS

**16<sup>45</sup> – 17<sup>00</sup>** Irina Nyrkova, Joseph J. Armao IV, Nicolas Giuseppone, **Alexander Semenov** CHARGE-CONTROLLED FORMATION OF LIGHT-INDUCED SELF-ASSEMBLED STRUCTURES IN SOLUTIONS OF TRIARYLAMINES

**17<sup>00</sup> – 17<sup>15</sup>** **Andrey Subbotin**, Alexander Semenov ADSORBED POLYELECTROLYTE LAYERS: EFFECT OF SALT AND POLYMER/SURFACE INTERACTION

**17<sup>15</sup> – 17<sup>30</sup>** **Elena E. Dormidontova**, Hari Sharma LIPID SELF-ASSEMBLY AND INTERACTIONS WITH CHARGED MACROMOLECULES

**17<sup>30</sup> – 17<sup>45</sup>** Tobias Richter, Oleg Rud, Oleg Borisov, Christian Holm and **Peter Kořovan** MODELING OF SWELLING OF POLYELECTROLYTE GELS: FROM QUALITATIVE TO QUANTITATIVE DESCRIPTION

**17<sup>45</sup> – 18<sup>00</sup>** Félix Carrique, Emilio Ruiz-Reina, Francisco J. Arroyo, Ángel V. Delgado, **Rafael Roa** IONIC COUPLING EFFECTS IN THE ELECTROKINETICS OF AQUEOUS CONCENTRATED SUSPENSIONS

**18<sup>00</sup> – 18<sup>15</sup>** G.A. Armeev, **A.K. Shaytan** MOLECULAR MODELING OF NUCLEOSOMES: INSIGHTS INTO NUCLEOSOME FUNCTION

**18<sup>15</sup> – 18<sup>30</sup>** **Cornelius Hofzumahaus**, Per Linse, Stefanie Schneider A MONTE CARLO STUDY OF THE CHARGE DISTRIBUTION AND CONFORMATION OF TITRATABLE POLYMER NETWORKS – A MODEL FOR WEAK POLYELECTROLYTE MICROGELS

**18<sup>30</sup> – 18<sup>45</sup>** **Andrij Pich**, Walter Richtering, Igor Potemkin STIMULI-RESPONSIVE POLYAMPHOLYTE MICROGELS

**June 28**

**SECTION 1**

**Auditorium B2**                      *Chairs: Heikki Tenhu, Kalle Levon*

**17<sup>30</sup> – 17<sup>45</sup>** Li Shi, Florent Carn, François Boué, **Eric Buhler** ROLE OF THE BIOPOLYELECTROLYTE PERSISTENCE LENGTH TO NANOPARTICLE SIZE RATIO IN THE STRUCTURAL TUNING OF ELECTROSTATIC COMPLEXES

**17<sup>45</sup> – 18<sup>00</sup>** Inna Dewald, Julia Gensel, Eva Betthausen, Oleg V. Borisov, Axel H.E. Müller, Felix H. Schacher, **Andreas Fery** SPLITTING OF SURFACE-IMMOBILIZED MULTICOMPARTMENT-MICELLES INTO CLUSTERS UPON CHARGE INVERSION

**18<sup>00</sup> – 18<sup>15</sup>** **Larisa M. Timofeeva**, Andrey Lyashchenko CATIONIC POLY(DIALLYLAMINES) IN AQUEOUS SOLUTIONS: CORRELATIONS BETWEEN IONIC TRANSPORT FEATURES OF POLYMERS WITH DIFFERENT AMINE STRUCTURE AND MYCOBACTERICIDAL ACTIVITY

**18<sup>15</sup> – 18<sup>30</sup>** **Gennady Khomutov** COMPLEXES OF NATURAL POLYELECTROLYTES WITH INORGANIC NANOPARTICLES

**18<sup>30</sup> – 18<sup>45</sup>** **Rustem Amirov**, Alexander Solodov, Evgenia Burilova, Anna Ziyatdinova, Yulia Zhuravleva, Mikhail Bukharov, Alexey Zakharov PARAMAGNETIC NMR- AND ESR-PROBING - CONVENIENT TOOLS FOR INVESTIGATING STATE AND INTERACTIONS OF POLYELECTROLYTES IN SOLUTIONS

**18<sup>45</sup> – 19<sup>00</sup>** **Tobias Benselfelt**, Jonatan Henschen, Torbjörn Pettersson, Lars Wågberg FORMATION OF POLYELECTROLYTE MULTILAYERS ON DIFFERENTLY CHARGED CELLULOSE SURFACES

**19<sup>00</sup> – 19<sup>15</sup>** **Anita Lourenço**, Julien Arnold, David Hunkeler, Maria G. Rasteiro IMPROVEMENT OF FLOCCULANTS TO TREAT OILY WATERS USING HEALTH-FRIENDLY PROCESSES

**19<sup>15</sup> – 19<sup>30</sup>** **Ksenija Kogej** ISOTACTIC POLYMETHACRYLIC ACID: HYDROGEN BONDS, HYDROPHOBIC EFFECT AND INTERMOLECULAR ASSOCIATION

## SECTION 2

### Auditorium B3

*Chairs: Monica Olvera de la Cruz, Roland Netz*

**17<sup>30</sup> – 17<sup>45</sup>** **Caterina Dolce**, Guillaume Mériguet. CONFORMATION AND DYNAMICS OF SHORT POLYELECTROLYTES IN CHARGED CROWDED MEDIA STUDIED BY DIFFUSION NMR

**17<sup>45</sup> – 18<sup>00</sup>** **Yulia V. Shulevich**, Ekaterina G. Dukhanina, Julia A. Zakharova, Mikhail V. Motyakin, Alexander V. Navrotskii, Ivan A. Novakov FORMATION REGULARITIES AND PROPERTIES OF POLYELECTROLYTES OBTAINED BY TEMPLATE POLYMERIZATION OF IONIC MONOMERS IN ALKYL SULFATE MICELLAR SOLUTION

**18<sup>00</sup> – 18<sup>15</sup>** **Marie Haddou**, Gilles Sigaud, Annie Février, Joanna Giermanska, François Dole, Christophe Schatz, Jean-Paul Chapel STRONG INFLUENCE OF THE MIXING ORDER ON OPPOSITELY CHARGED POLYION COMPLEXATION AS PROBED BY ITC

**18<sup>15</sup> – 18<sup>30</sup>** Cornelius Hofzumahaus, Dimitri Bogdanowski, **Stefanie Schneider** MONTE CARLO SIMULATIONS OF CHARGED NANOGEL PARTICLES – A BEAD-SPRING MODEL OF A POLYELECTROLYTE NETWORK

**18<sup>30</sup> – 18<sup>45</sup>** **V. V. Vasilevskaya**, A. E. Machinskaya INTERPOLYMER POLYELECTROLYTE COMPLEXES: THEORY AND COMPARISON WITH EXPERIMENT

**18<sup>45</sup> – 19<sup>00</sup>** **Igor Erukhimovich** A STATISTICAL THEORY OF WEAKLY CHARGED POLYELECTROLYTES UNDER EQUILIBRIUM ASSOCIATION AND/OR IN ASSOCIATING SOLVENT

**19<sup>00</sup> – 19<sup>15</sup>** **Artem M. Rumyantsev**, Igor I. Potemkin COMPLEXATION OF OPPOSITELY CHARGED POLYELECTROLYTES: CALCULATION OF CHAINS SELF- AND COMPLEX CORRELATION ENERGIES WITHIN THE RPA

**19<sup>15</sup> – 19<sup>30</sup>** **Fabrice Carnal**, Arnaud Clavier, Serge Stoll PROTEIN-NANOPARTICLE INTERACTIONS AND COMPLEX FORMATION INVESTIGATED BY MONTE CARLO SIMULATIONS

**June 29**  
**SECTION 1**

**Auditorium B2**                      *Chair: Svetlana Sukhishvili*

**17<sup>00</sup> – 17<sup>15</sup>**    **Yury Shchipunov** POLYSACCHARIDE JELLIFICATION THROUGH POLYELECTROLYTE COMPLEX FORMATION

**17<sup>15</sup> – 17<sup>30</sup>**    **Rouslan Moustafine** ROLE OF MACROMOLECULAR INTERACTIONS OF PHARMACEUTICALLY ACCEPTABLE POLYMERS IN FUNCTIONING ORAL DRUG DELIVERY SYSTEMS

**17<sup>30</sup> – 17<sup>45</sup>**    **Maxim Kiryukhin**, Lau Hooi Hong, Lim Su Hui, Ece Kilic, Brendan Haigh, Regan Murney MULTILAYERED SHELLS: ENCAPSULATION, PROTECTION AND TARGETED DELIVERY OF FOOD BIOACTIVES

**17<sup>45</sup> – 18<sup>00</sup>**    **S. V. German**, M. V. Lomova, V. V. Zhev, B. N. Khlebtsov, D. A. Gorin, G. B. Sukhorukov NANOCOMPOSITE POLYELECTROLYTE BASED MICROCAPSULES WITH TUNABLE MRI CONTRAST

**18<sup>00</sup> – 18<sup>15</sup>**    **Mikhail N. Shaposhnikov**, Alexander V. Sevko, Sergei Yu. Zaitsev THE AMINO ACID COMPOSITION OF MILK PROTEINS AS THE NATURAL POLYELECTROLYTES

**SECTION 2**

**Auditorium B3**                      *Chair: Jian Ping Gong*

**17<sup>00</sup> – 17<sup>15</sup>**    A.M. Yashchenok, V.F. Korolovych, O.A. Inozemtseva, I.Y. Stetciura, S.V. German, G. B. Sukhorukov, **D. A. Gorin** REMOTE CONTROLLED THERANOSTIC SYSTEMS BASED ON POLYELECTROLYTE/NANOPARTICLE COMPOSITES

**17<sup>15</sup> – 17<sup>30</sup>**    Mandy Mende, **Simona Schwarz** CHITOSAN – AN EFFECTIVE NATURAL ADSORBENT FOR HEAVY METAL IONS

**17<sup>30</sup> – 17<sup>45</sup>**    **Felix A. Plamper**, Larisa V. Sigolaeva, Olga Mergel ELECTRO-CHEMICALLY-ACTIVE MICROGEL SYSTEMS

**17<sup>45</sup> – 18<sup>00</sup>**    **Andrey V. Shibaev**, Anastasiya A. Ivanova, Olga E. Philippova WORMLIKE SURFACTANT MICELLES WITHOUT AND WITH ADDED ASSOCIATING POLYELECTROLYTE: VISCOELASTICITY AND RESPONSIVENESS TO OILS

**18<sup>00</sup> – 18<sup>15</sup>**    **Nina Kasyanenko**, Ivan Unksov, Georgy Alexeev, Mikhail Osolodkov, Mikhail Varshavsky, Evgenii Tolstyko, Zhang Qiushi, Vladimir Bakulev DNA SOLUTIONS WITH METALLOORGANIC COMPOUNDS, METAL IONS, NANOPARTICLES AND NANOCCLUSERS. DNA PERSISTENT LENGTH AND VOLUME EFFECTS

***June 30***  
**SECTION 1**

**Auditorium B2**                      *Chair: Yeshayahu Talmon*

**9<sup>00</sup> – 9<sup>15</sup>**     **Aleš Lapanje**, Tomaž Rijavec, Yaroslav Rybkin, Daniil Bratashov, Olga Inozemtseva, Dmitry Gorin, Gleb Sukhorukov KEEPING BACTERIA UNDER CONTROL THROUGH DEVELOPMENT OF ALIVE BACTERIA-POLYELECTROLYTE COMPOSITES

**9<sup>15</sup> – 9<sup>30</sup>**     Milusheva R.Yu., Mukhamedov I.M., Batirbekov A.A, **Rashidova S.Sh.** BIOACTIVE PROPERTIES OF NANOCHITOSAN *Bombyx mori*

**9<sup>30</sup> – 9<sup>45</sup>**     **Feriel Lounis**, Joseph Chamieh, Laurent Leclercq, Philippe Gonzalez, Amine Geneste, Benedicte Prelot, Hervé Cottet STUDY OF THE INTERACTIONS BETWEEN OPPOSITELY CHARGED POLYELECTROLYTES: A COMPARISON BETWEEN FRONTAL CONTINUOUS CAPILLARY ELECTROPHORESIS AND ISOTHERMAL TITRATION CALORIMETRY

**9<sup>45</sup> – 10<sup>00</sup>**     Evgeny Tyutyaev, Oleg Kulikov, **Oksana Mayorova**, Ekaterina Brodovskaya, Nikolay Pyataev, Dmitry Gorin, Gleb Sukhorukov IN VIVO BIOIMAGING LUMINESCENT MICROCAPSULES ADDRESSED BY MAGNETIC FIELD GRADIENT

**10<sup>00</sup> – 10<sup>15</sup>**     **Andreas Herrmann** GENETICALLY ENGINEERED POLY-ELECTROLYTES

**10<sup>15</sup> – 10<sup>30</sup>**     **Yasuhisa Adachi** SEDIMENTATION AND ELECTROPHORESIS OF POROUS FLOC AND POLYMER COATED COLLOID

**10<sup>30</sup> – 10<sup>45</sup>**     Marie Haddou, Xiaoqing Liu, Joanna Giermanska, Emmanuel Ibarboure, Jean-Paul Chapel, **Christophe Schatz** KINETIC STUDIES AND STRUCTURAL CHARACTERIZATION OF POLYELECTROLYTE COMPLEXES PREPARED THROUGH A STOPPED-FLOW APPROACH

**SECTION 2**

**Auditorium B3**                      *Chair: Johan van der Maarel*

**9<sup>00</sup> – 9<sup>15</sup>**     **A. Basak Kayitmazer**, Alaaddin F. Koksai, Elif Kilic Iyilik PHYSICOCHEMICAL CHARACTERIZATION OF PHASE SEPARATION AND COMPLEX COACERVATION BETWEEN OPPOSITELY CHARGED WEAK & SEMI-FLEXIBLE BIOPOLYELECTROLYTES

**9<sup>15</sup> – 9<sup>30</sup>**     **Sarkyt Kudaibergenov**, Zhanar Nurakhmetova, Alexey Shakhvorostov, Iskander Gussenov, Birzhan Zhappasbayev, Gulnur Tatykhanova, Nurxat Nuraje PREPARATION AND CHARACTERIZATION OF HYDROPHOBICALLY MODIFIED POLYBETAINES

**9<sup>30</sup> – 9<sup>45</sup>**     **Amiya Kumar Panda** EFFECT OF POLYMER CHARGE ON THE FORMATION AND STABILITY OF NSAID LOADED NANOSTRUCTURED LIPID CARRIERS: PHYSICOCHEMICAL APPROACH

**9<sup>45</sup> – 10<sup>00</sup>** **Vladimir Sigitov**, Zhanar Nurakhmetova, Yana Pesiridi, Sarkyt Kudaibergenov DESIGN OF DRILLING MUDS BASED ON ANIONIC POLYSACCHARIDE – GELLAN

**10<sup>00</sup> – 10<sup>15</sup>** **Boris Noskov**, Vanda Lyadinskaya, Alexander Mikhailov, Shi-Yow Lin PHASE TRANSITIONS IN ADSORPTION LAYERS OF DNA/SURFACTANT COMPLEXES

**10<sup>15</sup> – 10<sup>30</sup>** Storm, Esio Bessa, Marcio Santos Rocha, Armando Hernandez Garcia, Frans Leermakers, **Renko de Vries** SELF-ASSEMBLED POLYELECTROLYTE COMPLEX BOTTLE-BRUSHES

**10<sup>30</sup> – 10<sup>45</sup>** **Irina Veselova**, Marina Barsukova, Elena Sergeeva, Olga Eremina, Alexander Sidorov, Eugene Goodilin, Tatiana Shekhovtsova SELF-ASSEMBLED CHITOSAN FILMS AS THE BASIS FOR SOLID-PHASE OPTICAL SENSORS