POLYELECTROLYTES POTSDAM ‘95

organized by

● Max-Planck-Institute for Colloid and Interface Research
● Deutsche Bunsen-Gesellschaft für Physikalische Chemie
● University of Potsdam

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ACKNOWLEDGEMENT

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We thank the Fachhochschule Potsdam for the kind offer to held the conference in their rooms and to use the conference facilities free of charge.
Scientific Program

September 18th - 22nd

Topics:

1. Characterization  
   (Monday)

2. Polyelectrolyte Behaviour in Solution  
   (Monday, Tuesday)

3. Macroionic Interactions  
   (Wednesday)

4. Interaction at Interfaces  
   (Thursday, Friday)

5. Polyelectrolyte Complexes and Gels  
   (Thursday, Friday)
Monday, September 18

08.30-9.00 Opening Addresses

H. Dautzenberg
(Organizing Committee)

Minister S. Reiche
(Ministry of Science, Research and Culture of Brandenburg)

H. Gramlich
(Lord Mayor of Potsdam)

P. Dubin
(International Symposia on Polyelectrolytes)

H. BaumgärTEL
(Deutsche Bunsengesellschaft)

M. Antonietti
(Max-Planck-Gesellschaft)

J. Koetz
(University of Potsdam)
9.00-10.30 Invited Lectures

Chair: W. Oppermann
Stuttgart, Germany

IL 1 E. J. Amis, Los Angeles, USA:
Model Polyelectrolytes in Model Solutions

IL 2 W. F. Reed, New Orleans, USA:
Time-Dependent Static Scattering Studies on Kinetic Processes in Polyelectrolyte Solutions

10.30-11.00 Coffee

11.00-11.30 Poster Introduction

Chair: W. Oppermann
Stuttgart, Germany

Topic 1

11.30-12.30 Contributed Papers

Topic 1

Chair: M. Schmidt, Bayreuth, Germany

CP 1.1 M. Rinaudo, I. Roure,
M. Milas, Grenoble, France:
Solution Properties of Hyaluronan, Role of the Ionic Strength on Electrostatic Interactions

CP 1.2 G. Wegner, R. Rulkens, Ch. Kowitz, W. Meyer, M. Schulze, Mainz, Germany:
Synthesis and Properties of Poly-p-phenylene-based Polyelectrolytes

CP 1.3  
**R. S. Farinato, L. A. Jackson**, Stamford, USA: Solution Structure of Microgels

Topic 2

Chair: **L. Belloni**, Gif sur Yvette, France

CP 2.1  
**Ch. Seidel**, Teltow, Germany: Polyelectrolyte Simulation

CP 2.2  

CP 2.3  
**B. Jamnik, N. Rebolj, V. Vlachy**, Ljubljana, Slovenia: Ion Binding in Polyelectrolyte Solution

12.30-14.00  
**Lunch**

14.00-15.30  
**Invited Lectures**

Chair: **G. Wegner**, Mainz, Germany
IL 3  J. C. Leyte, Leiden, Netherlands:
Diffusion in Polyelectrolyte Systems as Probed by NMR

IL 4  I. Noda, Y. Takahashi,
Nagoya, Japan:
Viscoelastic Properties of Polyelectrolyte Solutions

15.30-16.00  Coffee

16.00-18.00  Contributed Papers

Topic 1

16.00-17.00  Chair: G. Timofeeva, Moscow, Russia

CP 1.4  A. Briel, S. Förster, M. Antonietti, Teltow, Germany:
Viscosity of Model Polyelectrolytes

CP 1.5  D. Porschke, Göttingen, Germany:
Macrodipoles: Structures and Dynamics of Biological Polyelectrolytes

CP 1.6  D. Hunkeler, J. Hernandez-Barajas, Nashville, USA:
Synthesis of Copolymers of Acrylamide and Quaternary Ammonium Cationis Monomers via Inverse-Emulsion Polymerization

17.00-17.40  Chair: T. G. M. Van de Ven, Montreal, Canada

CP 1.7  D. Klemm¹, Th. Heinze¹,
W. Wagenknecht, Jena, Germany, Teltow, Germany: Properties of Regioselectively Substituted Anionic Cellulose Derivatives

CP 1.8 L. Rosengarten, K. Tauer, Teltow, Germany: A New Route to Water-Soluble Polyelectrolytes

Topic 2

16.00-17.00 Chair: W. Knoche, Bielefeld, Germany

CP 2.4 A. R. Khokhlov, Moscow, Russia: Mixed Polyelectrolyte/Ionomer Behavior in Ion-Containing Polymer Systems

CP 2.5 M. Keller, A. Heintz, R. N. Lichtenthaler, Heidelberg, Germany: Enthalpies of Dilution of Some Polycation Solution and Exchange Enthalpies of Polycation Counterions

CP 2.6 I. D. Robb, P. A. Williams, S. Clegg, D. G. Hall, Clwyd, England

17.00-18.00 Chair: K. Schmitz, Kansas City, USA

CP 2.7 V. S. Zdanowicz, U. P. Strauss, New Jersey, USA: Solubilization Peculiarities of Copolymers of Maleic Anhydride and Alkyl Vinyl Ethers

CP 2.8 A. Takahashi, T. Kato, Tsu, Japan:
Excluded Volume Effects of Sulphobetaine Polymers

CP 2.9

I. Hermeier, W. Knoche, Bielefeld, Germany,
A. Pohlmeier, H.-D. Narres, Jülich, Germany:
Kinetics of Complexation of Heavy Metal Ions with Polyelectrolytes

18.00

Poster Presentation

Topic 1 and 2

Tuesday, September 19

08.30-10.00 Invited Lectures

Chair: J. Barthel,
Regensburg, Germany

IL 5

M. Beer, R. Grottenmüller, M. Schmidt, Bayreuth, Germany, M. Muthukumar, Amherst, USA:
Polyelectrolytes in Solution: Linear Chains, Ionic Micronetworks and Molecular Recognition

IL 6

P. Turq, O. Bernhard, J. P. Simonin, Paris, France:
Charge Transport in Polyelectrolyte Solutions

10.00-10.30 Coffee
10.30-11.30  **Poster Introduction**

Topic 2

Chair: **D. Woermann**, Köln, Germany

11.30-12.30  **Contribution Papers**

Topic 2

Chair: **A. Heintz**, Heidelberg, Germany

**CP 2.10**  
**J. X. Tang, P. A. Janmey**, Boston, USA:  
Counterion Induced Bundle Formation of Rodlike Polyelectrolytes

**CP 2.11**  
**W. Burchard, M. Frank, E. Michel**, Freiburg, Germany:  
Particularities in Static and Dynamic Light Scattering from Branched Polyelectrolytes in Comparison with their Linear Analogues

12.30-14.00  **Lunch**

14.00-15.30  **Invited Lectures**

Chair: **N. Ise**, Osaka, Japan

**IL 7**  
**G. Jannink**, Gif sur Yvette, France:  
The Charge Structure Function in Electrolytes and Polyelectrolytes

**IL 8**  
**K. S. Schmitz**, Kansas City, USA:  
Further Developments on Polyelectrolyte Coupled Dynamics
15.30-16.00 Coffee

16.00-18.00 Contributed Papers

Topic 2

2 Parallel Sessions

Session A

16.00-17.00 Chair: G. Jannink, Gif sur Yvette, France

CP 2.12 C. Konak, Prag, Czech Republic, R. C. Rathi, P. Kopekova, J. Kopecek, Utah, USA:
Solution Properties of Polymers Containing Zwitterionic Moieties in Side Chains

CP 2.13 M. Benmouna\textsuperscript{1,2}, T. A. Vilgis\textsuperscript{1}, F.-I. Hakem\textsuperscript{2}, \textsuperscript{1}
Mainz, Germany, \textsuperscript{2} Tlemcen, Algeria:
Scattering from Weakly Charged Polyelectrolytes

CP 2.14 D. W. Sohn, P. S. Russo, Los Angeles, USA, D. B. Roitman, California, USA:
Polarized and Depolarized Dynamic Light Scattering from a Rodlike Polyelectrolyte in a Strong Acid

17.00-18.00 Chair: P. Turq, Paris, France

CP 2.15 M. Sedláčk, Kosice, Slovakia:
Light Scattering from Salt-Free Solutions of Linear Flexible Polyelectrolytes
CP 2.16  **M. Drifford, J. P. Dalbiez, M. Delsanti, L. Belloni**, Gif sur Yvette, France:

Dynamics and Structure of Polyelectrolyte Solutions with Multivalent Added Salt

CP 2.17  **R. Borsali**, Grenoble, France:

Light and Small Angle Neutron Scattering by Charged Polysaccharide in Solution

**Session B**

16.00-17.00  Chair: **V. Vlachy**, Ljubljana, Slovenia

CP 2.18  **N. Ise**, Osaka, Japan:
Long-Range Electrostatic Attraction Between Macroions Mediated by Oppositely Charged Counterions: Experimental Supports, Past and Present

CP 2.19  **T. Okubo**, Kyoto, Japan:
Importance of the Electrical Double Layers in the Formation of Giant Colloidal Single Crystals

CP 2.20  **H. Ludwig, K.-H. Loebel**, Heidelberg, Germany:
Interaction of Polyelectrolytes with Mono- and Divalent Cations

17.00-18.00  Chair: **U. Strauss**, Piscataway, USA

CP 2.21  **N. Imai**, Nagoya, Japan:
An Exact Theoretical Formula of Electrophoresis of Spherical Macroions in
Dilute Solution

CP 2.22  **Ch. Wandrey**, Teltow, Germany:
Molecular Mass and Ionic Strength Dependence of Electrochemical Properties of Flexible Polyelectrolytes

CP 2.23  **K. Yoshikawa**, Nagoya, Japan:
Thermodynamics and Kinetics on Coil-Globule Transition in a Single DNA Molecule

18.00  **Poster Presentation**

Topic 1 and 2

**Wednesday, September 20**

Topic 3

Chair: **G. S. Manning**, New Brunswick, USA

08.30-10.10  **G. S. Manning:** Dedication to Paul Ander 1930-1994

CP 3.1  **G. N. Patey**, Vancouver, Canada:
Macroscopic Particles in Solution: Solvent Structure and Interparticle Forces

CP 3.2  **B. Joensson, T. Aakesson**, Lund, Sweden, **C. E. Woodward**, Campbell, Australia:
Electrostatic and Hard Core Correlations in an Electric Double Layer
CP 3.3  R. Kjellander, Göteborg, Sweden:
Ion Correlations and Effective Charges in Electrolyte and Macroion Systems

10.10-10.30  Coffee

10.30-12.00

CP 3.4  L. Belloni, O. Spalla, Gif sur Yvette, France:
Long Range Attraction of Electrostatic Origin Between Neutral Surfaces

CP 3.5  G. S. Manning, New Brunswick, USA:
Extended Debye-Huckel Theory of Polyelectrolyte Interactions

CP 3.6  U. Mohanty, E. F. Merkert, Chestnut Hill, USA:
Polarization Effects, Counterion Condensation, Electrostatic Excluded Volume and Attractive Forces in Polyelectrolytes

12.00-13.00  Poster Introduction

Topic 5, Part I

Chair: P. Dubin, Indianapolis, USA

13.00  Lunch
Thursday, September 21

08.30-10.00 Invited Lectures

Chair: D. Horn, Ludwigshafen, Germany

IL 9 T. M. Birshtein, B. B. Zhulina, St. Petersburg, Russia, O. V. Borisov, Mainz, Germany: Theory of Polyelectrolyte Brushes

IL 10 G. J. Fleer, Wageningen, Netherlands: Polyelectrolyte Brushes and Polyelectrolyte Adsorption Layers

10.00-10.30 Coffee

10.30-11.30 Poster Introduction

Topic 4

Chair: D. Horn, Ludwigshafen, Germany

11.30-12.30 Contributed Papers

Topic 4

Chair: B. Vincent, Bristol, England

CP 4.1 J. B. Schlenoff, M. Li, H. Ly, T. Graul, Tallahassee, Fürstentum Liechtenstein: Polyelectrolyte Adsorption at Charged Surfaces
CP 4.2  M. A. Cohen Stuart, N. G. Hoogeveen, Wageningen, Netherlands: Kinetics of Polyelectrolyte Adsorption

CP 4.3  G. Decher, Strasbourg, France: Layered Polymeric Nanocomposites

Topic 5

Chair: Kabanov, Moscow, Russia

CP 5.1  V. A. Izumrudov, Moscow, Russia: Competitive Interchains Reactions

CP 5.2  C. Tribet, F. Petit, R. Audebert, J. L. Popot, Paris, France: Hydrophobic Association Between a Polyelectrolyte and a Protein in Aqueous Media

CP 5.3  H. Dautzenberg, J. Hartmann, S. Grunewald, F. Brand, Teltow, Germany: Stoichiometry and Structure of PEC Particles in Diluted Solutions

12.30-14.00  Lunch

14.00-15.30  Invited Lectures

Chair:
IL 11  B. Alince, A. Vanerek, T. G. M. van de Ven,  
Montreal,  
Canada:  
Effects of Surface Topography, pH and Salt  
on the Adsorption of Polydisperse Polyethyleneimine Onto Pulp Fibers

IL 12  A. Hill, A. Murphy,  
B. Vincent,  
Bristol, England:  
The Effect of Cationic Polyelectrolytes,  
Containing Terminal Hydrophobic Anchors,  
on the Stability of Vesicles of  
Dioctadecyldimethylammonium Chloride in  
Calcium Chloride Solutions

15.30-16.00  Coffee

16.00-18.00  Contributed Papers

Topic 4

16.00-17.00  Chair: N. Ise, Osaka, Japan

CP 4.4  E. Killmann, O. Rustemeier, O.  
Portenlänger, R. Rehmet, A. Fuchs,  
Garching, Germany:  
Stability of Suspensions Regulated by PE-Adsorption

CP 4.5  L. E. Dewalt, M. Valentine, H. D. Ou-Yang,  
Bethlehem, USA:  
Polyelectrolyte Adsorption on Colloidal Surfaces

CP 4.6  I. B. Petkanchin, Sofia,
Bulgaria:
Adsorption of Polyelectrolytes and Polymers on Model Colloidal Particles

17.00-18.00 Chair: M. Cohen Stuart,
Wageningen, Netherlands

CP 4.7 A. Lundqvist, L. Ödberg, G. Glad-Nordmark, Stockholm, Sweden:
Transfer of Polyelectrolytes from Cellulosic Fibers to Calcium Carbonate Particles

CP 4.8 L. Wagberg, K. Kolar, Sundsvall, Sweden:
Adsorption of Cationic Starch on Cellulosic Fibres

CP 4.9 S. Barany, J. Gregory,
London, England:
Flocculation of Clay Suspensions by Cationic Polyelectrolytes

Topic 5

16.00-17.00 Chair: Ch. Tribet, Paris, France

CP 5.4 E. A. Bekturov, L. A. Bimendina, Almaty,
Kazakhstan:
Polyelectrolyte Complexes Synthesized at Interfaces

CP 5.5 A. Laschewsky, B. Mayer, E. Wischerhoff,
Louvain,
Belgium:
Polyelectrolyte Complexes at Interfaces
CP 5.6  H.-M. Buchhammer, K. Lunkwitz, Dresden, Germany: Surface Modification by Polyelectrolyte Complexes

17.00-18.00  Chair: E. Kokufuta, Tsukuba, Japan

CP 5.7  H. Dautzenberg, B. Lukanoff, U. Eckert, B. Tiersch, U. Schuldt, Teltow, Germany: Immobilisation of Biological Matter by Polyelectrolyte Complex Formation

CP 5.8  M. Bezan, M. Malavasic, G. Vesnaver, Ljubljana, Slovenia: Surfactant Binding to Oppositely Charged Polyions

CP 5.9  S. Kosmella, J. Koetz, Potsdam, Germany, S. E. Friberg, R. A. Mackay, Clarkson, USA: Interactions of Polyelectrolytes with the Lyotropic Liquid Crystalline System Nade-cylsulfate/Decanol/Water

18.00  Poster Presentation

Topic 4 and 5

08.30-10.00  Invited Lectures

Chair: K. Yoshikawa, Nagoya, Japan

IL 13  S. Paoletti, Sassari, Italy
IL 14  
V. A. Bloomfield, St. Paul, USA:  
Mechanism of DNA Condensation by Multivalent Cations

10.00-10.30  
Coffee

10.30-11.30  
Poster Introduction

Topic 5, Part II

Chair: A. Khokhlov, Moscow, Russia

11.30-12.30  
Contributed Papers

Topic 4

Chair: G. Decher, Strasbourg, France

CP 4.10  
Theoretical and Experimental Investigations of Adsorbed Protein Structure at Interfaces

CP 4.11  
G. Schwarz, Basel, Switzerland:  
Peptides at Lipid Bilayers and at the Air-Water Interface

CP 4.12  
A. A. Yaroslavov, Moscow, Russia:  
Polyelectrolyte-Liposome Complexes

Topic 5
Chair: **R. Farinato**, Stamford, USA

### CP 5.10

**T.-P. Engelhardt**, **D. Woermann**, Köln, Germany: Light Scattering Experiments Near the Sol/Gel Transition Temperature of Thermo-Reversible Gels Formed by Aqueous Solutions of a Dendrimer

### CP 5.11

**M. Silberberg-Bouhnik, O. Ramon, I. Ladyzhinski, S. Mizrahi, Y. Cohen**, Haifa, Israel: Osmotic Deswelling of Weakly Charged Poly(Acrylic Acid) Solutions and Gels

### CP 5.12

**F. Schosseler, R. Skouri, J. P. Munch, S. J. Candau**, Strasbourg, France: Concentration Fluctuations in Polyelectrolyte Gels and Solutions

#### 12.30-14.00

**Lunch**

#### 14.00-15.30

**Invited Lectures**

Chair: **H. Dautzenberg**, Teltow, Germany

### IL 15

**V. A. Kabanov**, Moscow, Russia: Interpolyelectrolyte Complexes of Linear and Cross Linked Polyions

### IL 16

**R. K. Prud'homme, Y. L. Yin**, Princeton, USA: Swelling Properties and Network Structure of Polyelectrolyte Gels
15.30-16.00 Coffee

16.00-17.00 Contributed Papers

Topic 4

Chair: E. Killmann, München, Germany

CP 4.13 M. A. G. Dahlgren, H. C. M. Hollenberg\textsuperscript{1}, P. M. Claesson, Stockholm, Sweden,\textsuperscript{1} Eindhoven, Netherlands:
Polyelectrolytes Interacting with Interfaces: Surface Forces and Theoretical Results

CP 4.14 P. M. Claesson, A. Dedinaite, E. Blomberg, Stockholm, Sweden, V. G. Sergeyev, Moscow, Russia:
Surface Force Measurements in Polyelectrolyte Systems

CP 4.15 S. Akari, W. Schrepp, D. Horn, Ludwigshafen, Germany:
Imaging of Single Polyethylenimine Polymers Adsorbed on Negatively Charged Latex Spheres by Chemical Force Microscopy

Topic 5

Chair: E. Bekturov, Almaty, Kazakhstan

CP 5.13 E. Kokufuta, S. Matsukawa, Ibaraki, Japan:
Construction of a Biochemo-Mechanical System Using In-Homogeneous
Polyelectrolyte Gels with Immobilized Urease

CP 5.14  S. E. Kudaibergenov, Almaty, Kazakhstan: Synthesis and Characterization of Polyampholyte Gels

CP 5.15  Nagy

CP 5.16  S. E. Friberg, Clarkson, USA: Polymerization in a Non-Aqueous Lamellar Liquid Crystal

17.00   Poster Presentation

    Topic 4 and 5

18.00   Farewell

Poster

Topic 1

P 1.1  U. Adolphi, W.-M. Kulicke, H. Thielking, Hamburg, Germany
Absolute Determination of the Distribution of Molar Mass and Radius of Gyration for Polyelectrolytes

P 1.2 **G. Pavlov**, E. Korneeva, N. Yevlampieva, Yu. Fedotov
1. St. Petersburg, Russia,
2. St. Petersburg, Russia,
3. Vladimir, Russia

Molecular and Conformational Properties of a New Ion-Containing Aromatic Polyamide

P 1.3 **P. Fritzsche**, Potsdam, Germany

GPC-Characterisation in Systems Containing Ionic Groups

1. St. Petersburg, Russia,
2. St. Petersburg, Russia

Study of Dilute Solution Properties of Polyallylamine

P 1.5 **G. Rother**, Teltow, Germany

Characterization of Supramolecular Structures by Static Light Scattering-Methodical Investigations

P 1.6 **E. Giebeler, R. Stadler**, Mainz, Germany

ABC Triblock Copolymers Containing Ionomeric Functionalities
P 1.7 V. Hildebrandt, K. Zeitz, K.-H. Reichert, Berlin, Germany

Precipitation Polymerization of a Cationic Monomer in Aqueous Solution - Solution Properties of the Polymer

P 1.8 M. Muth, R. Stadler, Mainz, Germany

Polysiloxanes with Glucuronic Acid Side Chains

P 1.9 R. Rulkens, M. Schulze, G. Wegner, Mainz, Germany

Synthesis and Characterization of Rigid Rod Polyelectrolytes

P 1.10 G. C. Chitanu\textsuperscript{1}, I. Lingvay\textsuperscript{2}, C. Pacala\textsuperscript{2}, I. L. Zaharia\textsuperscript{1}, A. G. Anghelescu\textsuperscript{1}, A. Carpov\textsuperscript{1}, \textsuperscript{1}Iasi, Romania, \textsuperscript{2}Bukarest, Romania

Some Data Concerning the Anticorrosion Activity of Maleic Polyelectrolytes

P 1.11 V. B. Fainerman\textsuperscript{1}, R. Miller\textsuperscript{1}, J. Krägel\textsuperscript{2}, R. Wüstneck\textsuperscript{2}, A. Stortini\textsuperscript{3}, \textsuperscript{1}Berlin-Adlershof, Germany, \textsuperscript{2}Potsdam, Germany, \textsuperscript{3}Florence, Italy

Studies of Dynamic Surface Tension of Polyelectrolyte Solutions for Short Life Time

Topic 2

P 2.1 P. B. Warren, Wirral, England
The Electroneutrality Constraint in Polyelectrolyte Phase Stability

P 2.2 N. Imai, S. Yoshino, Nagoya, Japan

Interaction between Polyions Due to Charge Fluctuation in Relation to Ion Condensation

P 2.3 K. Kogej, J. Skerjanc, Ljubljana, Slovenia

Transport Phenomena and Ion Binding in Polyelectrolyte Solutions with Counterion Mixtures

P 2.4 U. Micka, K. Kremer, Jülich, Germany

Persistence Length of Flexible Weakly Charged Polyelectrolyte Chains

P 2.5 L. B. Bhuiyan\(^1\), C. W. Outhwaite\(^2\), \(^1\) San Juan, Puerto Rico, \(^2\) Sheffield, England

Structure of Aqueous Polyelectrolyte-Electrolyte Solutions and Macroion Solutions in the Modified Poisson-Boltzmann Theory

P 2.6 O. V. Borisov, Mainz, Germany

Branched and Grafted Polyelectrolytes

P 2.7 P. G. Khalatur, Tver, Russia

Computer Simulation of Ionomer Systems
P 2.8 J. R. Neto, J. Chahine, M. Fossey, C. C. M. dos Santos, Sao José, Brazil

Monte Carlo Simulations for Polyacid Dissociation

P 2.9 E. A. Gladkova¹, L. V. Dubrovina¹, A. I. Martynenko², E. Yu. Kabanova², N. I. Popova²,
¹ Moscow, Russia, ² Moscow, Russia

Dilute Solutions of N-Vinylpyrrolidone - N, N-Diallyl-N,N-Dimethylammonium Chloride Random Copolymers

P 2.10 A. I. Kipper, V. N. Ushakova, O. E. Samorova, S. V. Valueva, St. Petersburg, Russia

Light Scattering Investigation of Conformational Behaviour in Dilute Solutions for Polyelectrolytes with Hydrophobic Groups

P 2.11 V. Prevysh, M. Goldraich, Y. Cohen, Haifa, Israel

The Structure of Poly(methacrylic acid) and its Complex with Poly(ethylene oxide) in Aqueous Solution

P 2.12 O. V. Okatova¹, P. N. Lavrenko¹, Yu. A. Fedotov¹, B. Schulz²,
¹ St. Petersburg, Russia, ² Teltow, Germany

Polyelectrolyte Behavior of Some New Polyhetero-arylene Derivatives in Sulfuric Acid Solutions
P 2.13  A. Topp, L. Belkoura, D. Woermann, Köln, Germany

Dynamic Light Scattering Experiments with Aqueous Solutions of Low Charge Density in the Presence of Salt: Influence of Hydrophobic Effects

P 2.14  G. I. Timofeeva\textsuperscript{1}, S. A. Pavlova\textsuperscript{1}, L. U. Basaron\textsuperscript{1}, P. A. Gembitsky\textsuperscript{2}, L. F. Boksha\textsuperscript{2}, \textsuperscript{1} Moscow, Russia, \textsuperscript{2} Moscow, Russia

Hydrodynamic Parameters of Polyelectrolytes in Aqueous Salt Solutions

P 2.15  W. Baré, E. Nordmeier, Osnabrück, Germany

Polyelectrolyte Behaviour in Mixed Solvents

P 2.16  M. Hara, Piscataway, USA

Salt-Free Polyelectrolyte Behavior of Ionomers in Polar Solvents

P 2.17  E. E. Dormidontova, I. Ya. Erukhimovich, A. R. Khokhlov, Moscow, Russia

Microphase Separation in Weakly Charged Polyelectrolyte Solutions

P 2.18  N. L. Sitnikova, O. E. Filippova, Moscow, Russia

Miscibility Enhancement and Supramolecular aggregation in Weakly Charged Polyelectrolyte Mixtures in Aqueous Media
Micellization in Solutions of Charged Diblock Copolymer in Selective Solvents

Study of Micelles Formation in Telechelic Systems by means of Computer Simulation

Discrete Transition of Single DNA Chain Between Coil and Globule

On the Theory of DNA Compactization

Topic 4

Adsorption of a Polyelectrolyte Chain

Adsorption of a Polyelectrolyte Chain
Determination of Surface Rheological Behaviour of Adsorbed and Spread Monolayers Using the ADSA-Method (Axialsymmetric Drop Shape Analysis)

P 4.3 K. Ito, T. Muramoto, H. Kitano, Toyama, Japan
Positive Adsorption of Charged Colloid Particles Near a Like Charged Glass Plate

P 4.4 A. Semenov, Strasbourg, France
Polyelectrolyte Adsorption on Charged Surfaces

P 4.5 K. Lowack, Ch. A. Helm, Mainz, Germany
The Interaction Between Polyelectrolytes Adsorbed onto Mica in Aqueous Solution as Observed with the Surface Forces Apparatus

P 4.6 M. Hirata, J. Isoda, K. Yamada, T. Ebihara, Chiba, Japan
Adhesive and Autohesive Properties of Plasma-Treated Poly(Tetrafluoroethylene) Surfaces Photografted by Hydrophillic Monomers

P 4.7 S. A. Sukhishvili¹, St. Granick², ¹ Moscow, Russia, ² Urbana-Champaign, USA
Segmental Orientation, Chain Relaxation, and Surface Forces of Model Polyelectrolytes at Solid Surfaces
P 4.8 **I. Borukhov¹, D. Andelman¹, H. Orland²**,  
¹ Tel Aviv, Israel, ² Gif sur Yvette, France

Polyelectrolyte Solutions Between Two Charged Surfaces

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P 4.10 **J. Reiche¹, F. Penacorada², H. Kamusewitz³, S. Katholy¹, T. Zetzsch¹, L. Brehmer¹**,  
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P 4.11 **L. Schneiderbauer, J. Reiter, T. Michel, W. Nitsch**,  
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P 4.12 **W. Mächtle, J. Rieger, G. Ley**,  
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P 4.14  **M. Spassova**¹, A. G. Petrov¹,
  **J. I. Petkova**¹, I. Tsonveva², E. Neumann³,
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  ³ Bielefeld, Germany

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P 4.17  **S. Parker, W.-M. Kulicke**, Hamburg, Germany

Clarification of Aqueous Suspensions with Synthetic Polyelectrolytes
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P 4.18  **T. Radeva**, Sofia, Bulgaria

Electric Light Scattering of Ferric Oxide
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**Topic 5**

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P 5.2 **T. Izumi**¹, **A. Tsuboi**¹, **M. Hirata**¹,  
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P 5.3 **G. Petzold**, **K. Lunkwitz**, **G. Kramer**,  
Dresden, Germany

Flocculation with Polyelectrolytes and Polyelectrolyte-Complexes

P 5.4 **S. Kosmella**¹, **J. Koetz**¹,  
**S. E. Friberg**², **R. A. Mackay**²,  
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P 5.5 **E. Korneeva**¹, **G. Pavlov**²,  
**G. Polushina**², **O. Gorbunova**¹,
E. Panarin¹, ¹ St. Petersburg, Russia, ² St. Petersburg, Russia

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P 5.6 J. Huguet¹, I. Bataille¹, G. Muller¹, G. Mocanu², A. Carpov²,
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P 5.7 H.-H. Schwarz, Teltow, Germany

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P 5.11  **K. Hayakawa¹, I. Satake¹, J. C. T. Kwak²,¹ Kagoshima, Japan, ² Halifax, Canada**

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P 5.12  **M. L. T. Liveri¹, H. Hoffmann²,¹ Palermo, Italy, ² Bayreuth, Germany**

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Almaty, Kazakhstan

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P 5.14  **T. K. Bronich,** Moscow, Russia

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P 5.15  **V. V. Kopeikin,** St. Petersburg, Russia

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**Part II**

P 5.17 **L. V. Menshekova, V. V. Vasilevskaya**, Moscow, Russia

On the Theory of Kinetics of Swelling of Polyelectrolyte Networks

P 5.18 **K. Matsuda¹, M. Hirata¹, E. Kokufuta²**,  
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P 5.20 **S. G. Starodubtsev¹, A. R. Khokhlov¹, E. L. Sokolov², B. Chu²**,  
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P 5.25 M. A. V. Axelos\textsuperscript{1}, M. M. Mestdagh\textsuperscript{2}, J. Francois\textsuperscript{3}, \textsuperscript{1} Nantes, France, \textsuperscript{2} Louvain la Neuve, Belgique, \textsuperscript{3} Strasbourg, France

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P 5.26 K. Yamada, K. Sato, M. Hirata, Chiba, Japan

Active Transport of Organic Ions Through Polyethylene Film Gels Prepared by Photografting
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