

CONFERENCE PROGRAMME

Sunday, 20 July 2014

16:00 – 19:00 Registration with welcome buffet

Monday, 21 July 2014

9:00 – 9:10 **OPENING**
Daniel Horák (Chairman)
František Rypáček (Director of the Institute)

LECTURE SESSION 1 - Synthesis and kinetics

Chaired by: Michael Monteiro (Australia)

9:10 – 10:10 Opening lecture OL-01
Mohamed S. El-Aasser (USA)
Miniemulsions from concept to practice:
Fundamentals and applications

10:10 – 10:40 Keynote lecture KL-01
Klaus Tauer (Germany)
Heterophase polymerization: What do we know
about the mechanism?

10:40 – 11:00 *Coffee break*

LECTURE SESSION 1 - Synthesis and kinetics

Chaired by: Mitchell A. Winnik (Canada)

11:00 – 11:25 Main lecture ML-01
Timothy McKenna (France)
A combined CFD-PBM approach to the scale-up of
emulsion polymerisation processes

11:25 – 11:40 Special lecture SL-01
Kaihua Shen (People's Republic of China)
Tertiary amine *N*-oxides: An interface-mediated
living radical polymerization with non-formation of
dormant chains

- 11:40 – 11:55 Special lecture SL-02
Jutta Rieger (*France*)
From RAFT-polymerized latexes towards nanostructured materials through hydrogen bonding
- 11:55 – 12:10 Special lecture SL-03
Brian S. Hawkett (*Australia*)
The kinetics of the emulsion polymerisation of styrene revisited
- 12:10 – 12:25 Special lecture SL-04
Vien The Huynh (*Australia*)
Polymeric coating graphene oxide via RAFT-mediated emulsion polymerization
- 12:25 – 12:40 Special lecture SL-05
Ehsan Mehravar (*Spain*)
Comb-like acrylic-based polymer latexes containing nano-sized crystallizable domains

12:40 – 14:00

Lunch

LECTURE SESSION 1 - Synthesis and kinetics

Chaired by: Matthias Ballauff (Germany)

- 14:00 – 14:30 Keynote lecture KL-02
José M. Asua (*Spain*)
Developments in control of particle and film morphology
- 14:30 – 14:55 Main lecture ML-02
Masayoshi Okubo (*Japan*)
Preparation of stimuli-responsive, asymmetric nonspherical polymer particles using surface-initiated controlled/living radical polymerization in aqueous dispersed systems and its application
- 14:55 – 15:20 Main lecture ML-03
Christopher Barner-Kowollik (*Germany*)
Orthogonal supramolecular self-assembly for single chain folding, nanoparticle and complex macromolecular architecture design

15:20 – 15:35 Special lecture SL-06
Vincent Monteil (*France*)
Free radical polymerization of ethylene in aqueous dispersed media

15:35 – 15:50 Special lecture SL-07
Tsutomu Ono (*Japan*)
Emulsion polymerization using a water-in-oil slug flow in a microreactor

15:50 – 16:10 *Coffee break*

LECTURE SESSION 1 - Synthesis and kinetics

Chaired by: Michael Cunningham (Canada)

16:10 – 16:35 Main lecture ML-04
Stanisław Słomkowski (*Poland*)
Mechanisms of emulsion copolymerization of styrene and hydrophilic macromonomers

16:35 – 17:00 Main lecture ML-05
Patrick Lacroix-Desmazes (*France*)
Synthesis of cerium oxide/polymer hybrid latexes by emulsion polymerization

17:00 – 17:25 Main lecture ML-06
Stefan A. F. Bon (*United Kingdom*)
Supracolloidal chemistry: Soft materials from "smart" building blocks

17:25 – 18:30 **Posters**
Session 1 - Synthesis and kinetics: **posters P-01 – P-37**
Session 2 - Colloids for biosciences: **posters P-38 – P-51**

18:30 – 22:00 *Dinner*

Tuesday, 22 July 2014

LECTURE SESSION 2 – Colloids for biosciences

Chaired by: Yukio Nagasaki (Japan)

- 8:30 – 9:00 Keynote lecture KL-03
Jean-Luis Viovy (France)
Colloid self-assembly put to work in microscale analysis
- 9:00 – 9:25 Main lecture ML-07
Michael Monteiro (Australia)
siRNA delivery using polymers nanoparticles
- 9:25 – 9:40 Special lecture SL-08
Oleksandr Kuzmenko (Ukraine)
Anti-tumor activity of surface-modified iron oxide nanoparticles
- 9:40 – 9:55 Special lecture SL-09
Corinne R. Vebert-Nardin (Switzerland)
Electrostatic interaction of the Alzheimer's amyloid β (1-42) peptide with short single stranded synthetic nucleotide sequences affects the pathogenic fibrillar structure

9:55 – 10:15

Coffee break

LECTURE SESSION 2 - Colloids for biosciences

Chaired by: Jean-Luis Viovy (France)

- 10:15 – 10:45 Keynote lecture KL-04
Abdelhamid Elaissari (France)
Multi hollow particles preparation for therapy and theranostic applications
- 10:45 – 11:10 Main lecture ML-08
Yukio Nagasaki (Japan)
Redox polymer nanoparticles for novel therapeutics against oxidative stress

- 11:10 – 11:25 Special lecture SL-10
Atsushi Maruyama (*Japan*)
Soluble inter-polyelectrolyte complexes to engineer assemblies and functions of biopolymers
- 11:25 – 11:40 Special lecture SL-11
Kensuke Osada (*Japan*)
Development of functional polyplex micelles toward systemic gene therapy
- 11:40 – 11:55 Special lecture SL-12
Soliman Mehawed Abdellatif Soliman (*France*)
Photosensitive amphiphilic glycopolymers used to formulate hydrophobic drug delivery systems
- 11:55 – 12:10 Special lecture SL-13
Staffan Schantz (*Sweden*)
Polymer colloids in oral drug delivery applications
- 12:10 – 12:25 Special lecture SL-14
Adrian V. Fuchs (*Australia*)
Targeted hyperbranched polymers for prostate cancer theranostics

12:25 – 14:00

Lunch

LECTURE SESSION 2 - Colloids for biosciences

Chaired by: Karen L. Wooley (USA)

- 14:00 – 14:30 Keynote lecture KL-05
Craig J. Hawker (*USA*)
Novel polymer colloids inspired by marine organisms
- 14:30 – 14:55 Main lecture ML-09
Kanjiro Miyata (*Japan*)
Development of polymeric nanomaterials for systemic siRNA delivery to solid tumors
- 14:55 – 15:10 Special lecture SL-15
Jose Ramos (*Spain*)
Magnetic nanogels for bio-applications

- 15:10 – 15:25 Special lecture SL-16
Muriel Lansalot (*France*)
Modification of cellulose surfaces by cationic polymer latexes prepared by RAFT-mediated surfactant-free emulsion polymerization
- 15:25 – 15:40 Special lecture SL-17
Katarzyna Poltorak (*France*)
Interfacial "click" reaction as method for preparing dextran-covered nanocapsules
- 15:40 – 15:55 Special lecture SL-18
Loïc Bugnicourt (*France*)
New insights into lipid layer reorganization onto polysaccharide particles for biomedical applications

15:55 – 16:15

Coffee break

LECTURE SESSION 2 - Colloids for biosciences

Chaired by: Abdelhamid Elaissari (France)

- 16:15 – 16:40 Main lecture ML-10
Mitchell A. Winnik (*Canada*)
Metal-containing polymers, microgels, and nanoparticles for bioanalytical applications
- 16:40 – 16:55 Special lecture SL-19
Irem Erel-Goktepe (*Turkey*)
Ultra-thin films of polyzwitterionic micelles
- 16:55 – 17:10 Special lecture SL-20
Catherine L. Cooper (*United Kingdom*)
Sugar functionalized polymer colloids for the removal of Cholera toxin from water
- 17:10 – 17:25 Special lecture SL-21
Stergios Pispas (*Greece*)
Complexation of lysozyme with triblock polyelectrolyte micelles with different coronal structure
- 17:25 – 19:00 **Posters**
Session 3 - Stimuli responsive colloids: **posters P-52 – P-71**
Session 4 - Industrial trends: **posters P-72 – P-84**

Wednesday, 23 July 2014

LECTURE SESSION 3 - Stimuli responsive colloids

Chaired by: Craig J. Hawker (USA)

- 8:30 – 9:00 Keynote lecture KL-06
Karen L. Wooley (USA)
Multi-functional, stimuli-responsive nanoparticle technologies derived from natural products: Innovative strategies for their construction and utilization as theranostic agents
- 9:00 – 9:25 Main lecture ML-11
Michael Cunningham (Canada)
Stimuli responsive polymer colloids using carbon dioxide as a trigger
- 9:25 – 9:40 Special lecture SL-22
Andrij Pich (Germany)
Light-triggered aqueous polymer nanogels
- 9:40 – 9:55 Special lecture SL-23
Emmanuelle Marie (France)
Trigger-responsive patterns to control attachment of proteins, particles, and cells
- 9:55 – 10:10 Special lecture SL-24
Efrosyni Themistou (United Kingdom)
Sterile pH-responsive block copolymer vesicles for protein intracellular delivery

10:10 – 10:30

Coffee break

LECTURE SESSION 3 - Stimuli responsive colloids

Chaired by: Peter A. Lovell (United Kingdom)

- 10:30 – 11:00 Keynote lecture KL-07
Matthias Ballauff (Germany)
Dynamics of thermosensitive core-shell colloids
- 11:00 – 11:25 Main lecture ML-12
Alex M. van Herk (Singapore)
Nanocapsules and nanobottles for controlled release: From micellar to vesicle polymerization

- 11:25 – 11:40 Special lecture SL-25
John Tsavalas (USA)
Stimuli-responsive water-occluded heterogeneous particle morphologies: synthesis, characterization and implications
- 11:40 – 11:55 Special lecture SL-26
Hans Heuts (Netherlands)
Functional hairy particles via poly(2-oxazoline)-stabilized emulsion polymerization
- 11:55 – 12:10 Special lecture SL-27
Maud Save (France)
Synthesis of multi-responsive hybrid microgels by precipitation polymerization
- 12:10 – 12:25 Special lecture SL-28
Yaman Boluk (Canada)
Temperature induced phase transition of cellulose nanocrystals grafted with poly(*N*-isopropylacrylamide)

12:25 – 14:00

Lunch

14:00

Social programme - guided tours in Prague

Thursday, 24 July 2014

LECTURE SESSION 4 – Industrial trends

Chaired by: José M. Asua (Spain)

8:30 – 9:00

Keynote lecture KL-08

Peter A. Lovell (United Kingdom)

Design of water-born coatings using the soft-soft nanocomposite principle

9:00 – 9:15

Special lecture SL-29

Julien Parvole (France)

Synthesis of boron-containing polymer nanoparticles via polymerization in dispersed media: towards tailor-made nanoparticles for laser-driven fusion reactions applications

- 9:15 – 9:30 Special lecture SL-30
Ines L. Hofmeister (*Germany*)
pH-sensitive nanocapsules with barrier properties
- 9:30 – 9:45 Special lecture SL-31
Štěpán Podzimek (*Czech Republic*)
A4F analysis of emulsion acrylic copolymers
- 9:45 – 10:00 Special lecture SL-32
Peter Krajnc (*Slovenia*)
Emulsion templating- tool for preparation of interconnected macroporous materials

10:00 – 10:20

Coffee break

LECTURE SESSION 4 - Industrial trends

Chaired by: Stanisław Słomkowski (Poland)

- 10:20 – 10:50 Keynote lecture KL-09
Wolf-Dieter Hergeth (*Germany*)
Dispersible powdered polymeric dispersions
- 10:50 – 11:20 Main lecture ML-13
Daniel Ou-Yang (*USA*)
A new non-destructive method for measuring colloidal stability
- 11:20 – 11:35 Special lecture SL-33
Bernd Reck (*Germany*)
Structure-property studies of self-crosslinking emulsion polymers
- 11:35 – 11:50 Special lecture SL-34
Julien Loste (*France*)
Elaboration of transparent composite materials based on hybrid core@shell nanoparticles
- 11:50 – 12:05 Special lecture SL-35
Silfredo J. Bohorquez (*Netherlands*)
High-throughput solution for optimizing pigment dispersing polymer colloids

12:05 – 12:20 Special lecture SL-36
Tao Chen (*People's Republic of China*)
Smart hybrid system of gold NPs immobilized
PDMAEMA brushes for thermally adjustable catalysis

12:20 – 12:35 Special lecture SL-37
Hyoung Jin Choi (*Republic of Korea*)
Core-shell structured microsphere suspensions and
their electrorheology

12:35 – 14:00

Lunch

LECTURE SESSION 4 - Industrial trends

Chaired by: Jaromír Šňupárek (University of Pardubice)

14:00 – 14:30 Keynote lecture KL-10
Sebastian Seiffert (*Germany*)
Sensitive microgels as microcapsules and model
colloids

14:30 – 14:55 Main lecture ML-14
Bedri Erdem (*USA*)
Advances in waterborne epoxy technologies for
challenging coating applications

14:55 – 15:10 Special lecture SL-38
Pieter Samyn (*Germany*)
Processing of waterborne polymer nanoparticles as
additives for pulp and paper products

15:10 – 15:25 Special lecture SL-39
Aneta Michna (*Poland*)
The formation and stability of PDADMAC monolayers
on mica determined *in situ* by QCM-D and the
electrokinetic measurements

15:25 – 15:35 **Scientific closing, path forward**
Peter A. Lovell (*United Kingdom*)

15:35 **FAREWELL**