European Federation of Chemical Engineering
2nd Working Party on Polymer Reaction Engineering
Hamburg, May 24th to 26th 2013

Invitation

Dear company representatives, professors and PhD-students,

the 2nd Working Party on Polymer Reaction Engineering to be held in Hamburg from May 24th to 26th presents a platform for young and motivated scientists to exchange and discuss recent research and to get into contact with interesting companies and possible employers.

After the successful kick-off in Lyon, we were able to extend the scope of research fields, participating universities and industry representatives. Over 30 PhDs will present their research results in oral presentations and poster contributions covering all fields of Polymer Reaction Engineering:

• Emulsion polymerization
• Polymerization kinetics
• Modeling of polymerizations
• Reaction-plants
• Gas-phase polymerizations
• Polymer morphology

We are looking forward to seeing you in Hamburg

The organizing committee
Program

Friday, 24th May

13:00-14:00  Registration at the conference site
            Poster wall preparation

Session I
Chair: Annelie Halfar (University of Hamburg)
14:00-14:20 Stefano Lazzari (ETH Zürich)
        Modeling Multiradicals in Bulk Crosslinking Copolymerisation
14:20-14:40 Calista Preusser (Queen’s University)
        Developing a Model for the Aqueous Phase Copolymerisation of Acrylic Acid and Acrylamide
14:40-15:00 David Eckes (TU Darmstadt)
        Modelling the Microstructure of Ethylene Vinyl Acetate Copolymers considering Different Types of Short Chain Branches
15:00-15:20 Shaghayegh Hamzehlou (University of Basque Country)
        Copolymerization of N-Butyl Acrylate and Styrene: Terminal vs. Penultimate Model and the Effect of Backbiting
15:20-16:30 Coffee Break and Poster Session

Session II
Chair: Thomas Kröner (University of Halle)
16:30-16:50 Paul H. M. Van Steenberge (Ghent University)
        Efficient Stochastic Calculation of the Chemical Composition – Chain Length Distribution accounting for Possible Diffusional Limitations
16:50-17:10 Nazila Yaghini (University of Amsterdam)
        2-D-Molecular Weight Distribution Modeling for Topological Scission
17:10-17:30 Ágnes Bárányi (University of Pannonia)
17:30-17:50 Arash Alizadeh (University of Lyon I)
        Modeling of Time Scale for Vaporization of Liquid Droplets during Condensed Mode Operation of Ethylene Polymerization in FBRs
19:00 Dinner
        Ristorante Terzetto

The dinner is kindly sponsored by
Program

Saturday, 25th May

**Session III**
Chair: Tom Jansen (Eindhoven University of Technology)

08:00-08:20  **Kevin A. Payne** (Queen’s University)
**ARGET ATRP: A Systematic Investigation of Limitations at Low Copper Levels**

08:20-08:40  **Dambarudhar Parida** (University of Strasbourg)
**Effect of Microreactor Geometry and Operating Parameters on ATRP Processes**

08:40-09:00  **Thomas Kröner** (University of Halle)
**Model-based Transfer of Free Radical Copolymerisation from Batch to Continuous Operation**

09:00-09:20  **Dhiraj K. Garg** (University of Strasbourg)
**Analytical Solution of FPR for Constant Volume, Isothermal, Well-mixed Batch Reactor and its Application**

09:20-10:30  **Coffee Break and Poster Session**

**Session IV**
Chair: Michal Vonka (Institute of Chemical Technology Prague)

10:30-10:50  **Jone Urrutia** (University of the Basque Country)
**Fouling in Emulsion Polymerization Reactors**

10:50-11:10  **Amaia Agirre** (University of the Basque Country)
**Continuous Production of Vinyl-Acetate – Veova 10**

11:10-11:30  **Tom Jansen** (Eindhoven University of Technology)
**Mass Transfer and Particle Size Conservation in Miniemulsion Polymerization**

11:30-11:50  **Barthélémy Brunier** (University of Lyon)
**Evaluation of Laponite Partitioning in Pickering Emulsion Polymerization**

12:00-13:30  **Lunch**
Café SternChance

The lunch is kindly sponsored by

SULZER
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Saturday, 25th May

**Session V**
Chair: Amaia Agirre (University of the Basque Country)

13:30-13:50  **Alexandr Zubov** (Institute of Chemical Technology Prague)
*Meso-scale Modeling of Transport and Reaction in Reconstructed Porous Polyolefin Particles*

13:50-14:10  **Richard Pokorný** (Institute of Chemical Technology Prague)
*Mathematical Modelling of Heat Transfer in Polymer Foams: Morphology Optimization*

14:10-14:30  **Andra Nistor** (Institute of Chemical Technology Prague)
*Systematic Investigation of Micro-Cellular Polystyrene Foams Prepared with High-pressure CO₂*

14:30-15:00  **Coffee Break and Poster Session**

15:20-15:40  **Leonhard Mayrhofer** (Johannes Kepler University)
*Investigation of Single Particle Gas-Phase Ethylene Homo-Polymerization with Ziegler-Natta Catalyst*

15:40-16:00  **Thomas Hoechfurtner** (Johannes Kepler University)
*Kinetic Studies of the Influence of Different Al-Alkyls on the Polymerization of Ethene with Ziegler-Natta catalyst*

16:00-16:30  **Coffee Break and Poster Session**

16:30-16:40  **Wiley prize for best contribution**

16:40-17:15  **Miran Milosevic** (Sabic Europe)
*Entering SABIC with Education in Chemical Engineering*

17:15-17:45  **Labtour (optional)**

18:30  **Barbecue at the Institute**

**Session VI**
Chair: Claudia Schwartzkopff (TU Darmstadt)

15:00-15:20  **Joana Kettner** (University of Halle)
*Influence of Temperature and Catalyst Injection Procedure on Gas-Phase Polymerization of Propylene*

The best contribution prize is kindly sponsored by

WILEY-VCH
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Sunday, 26th May

Meeting Point  10:45 at St. Pauli Landungsbrücken, Bridge 2
11:00-13:00  Boat trip through Hamburg
13:00-14:30  Lunch, Fischrestaurant Hoppe
14:30  Departure / Free time

Conference site

Institut für Technische und Makromolekulare Chemie
Room 39
Bundesstr. 45
20146 Hamburg

From Hamburg central station, take the subway line U2 to Schlump. From there, it is about 5 minutes to walk.

Boat trip and lunch are kindly sponsored by

BASF
The Chemical Company
1. Advantages of Milli-Structured PTFE-Tubular Reactors for Continuous Emulsion Polymerization Reactors
   Fabian Lüth, University Hamburg

2. Suspension polymerization modelled by coupled CFD and population balances
   Michal Vonka, Institute of Chemical Technology Prague

3. Modeling of compartmentalization effects in technical high-pressure autoclaves
   Sebastian Fries, TU Darmstadt

4. A realistic model of topological scission in LDPE molecular weight distribution
   Nazila Yaghini, University of Amsterdam

5. Meso-scale Modeling of Transport and Reaction in Reconstructed Porous Polyolefin Particles
   Alexandr Zubov, Institute of Chemical Technology Prague

6. A kinetic Monte Carlo methodology for tracking monomer sequences in copolymers
   Paul H. M. Van Steenberge, Ghent University

7. Modelling the Microstructure of Ethylene Vinyl Acetate Copolymers considering Different Types of Short Chain Branches
   David Eckes, TU Darmstadt

8. Modeling of Time Scale for Vaporization of Liquid Droplets during Condensed Mode Operation of Ethylene Polymerization in FBRs
   Arash Alizadeh, University of Lyon I

   Ágnes Bárkányi, University of Pannonia, Hungary

    Richard Pokorný and Andra Nistor, Institute of Chemical Technology Prague

11. Developing a Model for the Aqueous Phase Copolymerisation of Acrylic Acid and Acrylamide
    Calista Preusser, Queen’s University, Canada

12. Model-based Transfer of Free Radical Copolymerisation from Batch to Continuous Operation
    Thomas Kröner, University of Halle, Germany
13. Crosslinking Copolymerization by Monte Carlo Simulation: Multiradical Consideration
   Shaghayegh Hamzehlou, University of the Basque Country, Spain

   Joana Kettner, University of Halle, Germany

15. Fouling in Emulsion Polymerization Reactors
    Jone Urrutia, University of the Basque Country, Spain

16. Kinetic Studies of the Influence of different Al-Alkyls on the Polymerization of Ethene with Ziegler-Natta catalyst
    Thomas Höchfurtner, Johannes Kepler University, Austria

17. Kinetic study of single particle gas-phase ethylene homo-polymerization with Ziegler-Natta catalyst
    Leonhard Mayrhofer, Johannes Kepler University, Austria

    Stefano Lazzari, ETH Zürich, Switzerland

19. Analytical solution of FRP for constant volume, isothermal, well mixed batch reactor and its applications
    Dhiraj K. Garg, University of Strasbourg, France

20. A Clean Synthetic Route to Medical Grade Biodegradable Polymers - Enzymatic Polymerization using Supercritical Dioxide as Reaction Medium
    Christian Schmidt, Clausthal University of Technology, Germany

21. Continuous production of Vinyl Acetate-Veova 10
    Amaia Agirre, University of the Basque Country, Spain