

# EFCE SpotLight Talks

Working Party on  
Polymer Reaction Engineering

17 November  
2022

15:00 • 18:00

CET

## CURRENT RESEARCH IN POLYMER REACTION ENGINEERING



*Polymer materials are present in everyday life, but also play an essential role in advancing sustainability. Thus, improving polymers but also polymerization processes is an essential task, which is tackled by the Polymer Reaction Engineering community. The application of modeling plays an important role in this context, as modeling does not only allow to enhance understanding of the investigated system, to improve process stability and reproducibility, but also do reduce necessary experiments.*

*This Spotlight Talk will highlight some of the current developments and research done in the polymer reaction engineering community of EFCE. This will be an opportunity to get an insight into the community for anyone new to the area and simultaneously strengthen the network of researchers already active.*

### PROGRAM

- 15:00      **Welcome and introduction**  
Markus Busch, Chair WP on Polymer Reaction Engineering, TU Darmstadt - Germany  
Petr Kluson, EFCE Scientific Vice-President
- 15:10      **Polymeric foams prepared by temperature induced phase separation: Experiments and Cahn-Hilliard models**  
Juraj Kosek, UTC Prague - Czech Republic
- 15:40      **Model-based design of industrial polymer synthesis and recycling**  
Dagmar D'hooge, Ghent University - Belgium
- 16:10      **Nonlinear model predictive control of industrial semibatch polymerisation reactors**  
Peter Singstad, Cybernetica - Norway
- 16:40      **The tango in emulsion polymerization between reaction chemistry and process dynamics**  
John Tsavalas, University of New Hampshire - United States
- 17:10      **Mass transfer limitations in multiphase emulsion polymerization**  
Mariana Torres Aladro, Tim McKenna, University of Lyon, CNRS - France
- 17:40      **Panel discussion and final remarks**  
Markus Busch, Chair WP on Polymer Reaction Engineering, TU Darmstadt - Germany  
Kristina Zentel, Secretary WP on Polymer Reaction Engineering, TU Darmstadt - Germany

**Registration**

*free of charge but mandatory*

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