

INVITATION

Polymer reaction engineering (PRE) encompasses and influences a wide field of engineering and scientific disciplines, as well as issues related to industry, economy and society. This triannual International Workshop gathers and evaluates new concepts and advances in technology. Developments in other engineering areas and progress in industry are given a forum for discussion.

Polymer reaction engineering is expected to contribute its share to improving the efficiency of energy, materials and investment. This in turn leads to enhanced economic and environmental sustainability in industry. The workshop targets this general expectation in several areas. Inventive polymerisation processes will open new gateways by using innovative and improved forms of energy input, energy transfer, new reaction media, alternative reactors and processing systems. Leading edge catalysis will enable new processes and improve existing ones. Basic understanding of processes will be enhanced through modelling and simulation. At the same time the design of fresh processes as well as the optimisation of existing ones will be facilitated. Renewable, biologically based monomers, which avoid pollution and hazards contribute to sustainability, especially alongside polymers whose life cycle has been optimised. These targets must be correlated with the wide range of general aspects of polymer processes, physical properties and polymerisation chemistry.

The Scientific Committee is pleased to invite you to this International Workshop in Hamburg.

Proceedings of the Workshop will be published in the WILEY-VCH series "Macromolecular Symposia". A copy of the proceedings is part of the conference fee of each regular participant. The proceedings will be published and shipped to the participants some months after the workshop.

DEHEMA Society for Chemical Technology and Biotechnology and The University of Hamburg cordially invite you to participate in the 10th International Workshop on Polymer Reaction Engineering in Hamburg/Germany.

CONFERENCE TOPICS

NEW POLYMERISATION PROCESSES

- » Microwave / ultrasound assisted polymer reactions
- » Energy efficient / intensified
- » Robust polymerisation processes
- » New reactor/process technologies
- » Micro-technology in PRE / micro-reactors in industrial polymerisation processes
- » High-throughput technology
- » Efficient heat removal / reaction and reactor safety
- » Reactive processing / reactive extrusion / reactive blending / RIM
- » Supercritical systems

CATALYSIS IN POLYMER REACTION ENGINEERING

- » New catalysts and catalytic polymerisation processes
- » Enzymatic polymerisation
- » Polyolefins

MODELLING AND SIMULATION IN POLYMER REACTION ENGINEERING

- » Model predicted control / real time optimisation
- » Reaction monitoring / process performance monitoring
- » In-line and on-line process analytics
- » Modelling and simulation for process development and control
- » CFD-simulation
- » Process scheduling

SUSTAINABLE POLYMER REACTION ENGINEERING

- » Bio-based monomers / renewables
- » VOC / waste gas / waste water reduction
- » Life cycle assessment of polymers
- » Environmentally benign polymerisation processes (CO₂, ionic liquids, a.o.)
- » Polymer degradation and recycling

ASPECTS OF POLYMER REACTION TECHNOLOGY

- » Hetero phase polymerisation
- » Advances in polymerisation on surfaces / interfaces, polymer coatings / confined geometries
- » Processes for nanoparticles, nanofilms and nanostructured polymer materials
- » Reactor fouling / reactor corrosion
- » Living polymerisation
- » Controlled radical polymerisation
- » Polymer thermodynamics

KEYNOTE SPEAKERS

Industrial polymerisation monitoring

W.-D. Hergeth, E. Frauendorfer, Wacker Chemie AG, Burghausen/D

An initiation emulsion raft polymerisation

Y. Luo, Zhejiang University, Hangzhou/PRC

Polymerisation reactions for engineering colloidal materials

M. Morbidelli, ETH Hönggerberg, Zurich/CH

Data reconciliation and control in styrene-butadiene emulsion polymerisations

J.C. Pinto, University of Rio de Janeiro/BR

Automatic continuous online monitoring of polymerisation reactions

W.F. Reed, Tulane University, New Orleans, LA/USA

Chain length dependence of rate constants in radical polymerisation systems

G. Russell, University of Canterbury/NZ

Needs and opportunities – molecular modelling meets process modelling

H. Weiss, BASF SE, Ludwigshafen/D

SUBMISSION OF ABSTRACTS

The submission of abstracts proceeds via file upload (max. 500 kB) at the website effective from **JANUARY 1, 2010** until **MARCH 15, 2010**.

@ **Full information and submission:**
www.dechema.de/pre10

The selection of the presentations (oral and posters) will be based on the review of 1-page abstracts (incl. figures) by the Committee.

Please note: registration fee can not be waived for authors.

COMMITTEES

CHAIRMAN

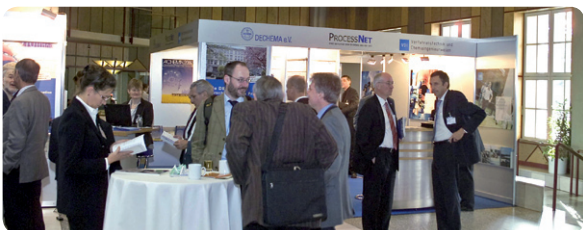
Prof. H.-U. Moritz University of Hamburg/D

LOCAL ORGANISING COMMITTEE

Dr. L. Nick DECHEMA e.V., Frankfurt am Main/D
Dr. W. Pauer University of Hamburg/D

SCIENTIFIC COMMITTEE

Prof. J. M. Asua University of the Basque Country,
San Sebastian/E
Dr. R. Bachmann Bayer Technology Services GmbH,
Leverkusen/D
Prof. K.-Y. Choi University of Maryland, MD/USA
Prof. M.F. Cunningham Queen's University, Kingston/CDN
Dr. W.-D. Hergeth Wacker Chemie AG, Burghausen/D
Prof. A.M. van Herk Eindhoven University of Technology/NL
Dr. K.-D. Hungenberg BASF SE, Ludwigshafen/D
Prof. R. A. Hutchinson Queen's University, Kingston/CDN
Prof. J. Kosek Prague Institute of Chemical
Technology/CZ
Prof. B.-G. Li Zhejiang University, Hangzhou/PRC
Prof. M. Morbidelli ETH Hönggerberg, Zurich/CH
Dr. M. Stickler Evonik Röhm GmbH, Darmstadt/D



EXHIBITION

Parallel to the Workshop an exhibition will take place. The exhibition space is close to the lecture and poster hall which allows an ideal integration of lectures, poster discussions and exhibition.

For further information please contact the organiser (strauss@dechema.de).

GENERAL INFORMATION

DATES TO NOTE

MARCH 15, 2010: Deadline for paper submission
END OF APRIL, 2010: Notification of acceptance and instructions
MID OF JUNE, 2010: Final programme available

VENUE

University of Hamburg
Institute of Technical and Macromolecular Chemistry
Bundesstraße 45
20146 Hamburg/D

Further details: www.chemie.uni-hamburg.de/pre10

ORGANISATION

DECHEMA e.V.
Congress Office
Renate Strauss
Theodor-Heuss-Allee 25
60486 Frankfurt am Main/D

Phone: +49 (0) 69 75 64-249

Fax: +49 (0) 69 75 64-176

eMail: strauss@dechema.de

LANGUAGE

The Workshop language will be english.



 WWW.DECHEMA.DE/PRE10



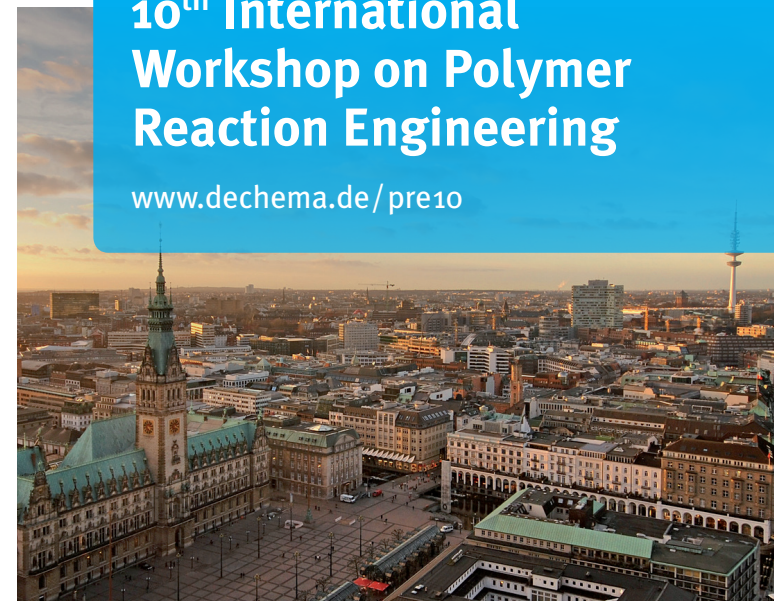
Gesellschaft für Chemische Technik
und Biotechnologie e.V.

CALL FOR PAPERS

October 10 – 13, 2010
University of Hamburg / Germany

10th International Workshop on Polymer Reaction Engineering

www.dechema.de/pre10



IN COOPERATION WITH

