Scientific Committee

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University of Namur
Prof. Benoît Champagne

SINTEF Materials and Chemistry
Duncan Akporiaye

Fraunhofer ICT-IMM
Gunther Kolb

University of Warwick
André van Veen

Key Dates

Early bird registration deadline:
1st of September, 2015

Abstract submission deadline:
1st of September, 2015

Summer course:
14-17th of September, 2015

Registration

Early-bird registrations

Members of the organizing consortia	200 €
Others:	
Academic	300 €
Non-academic	500 €

Late registrations:

Members of the organizing consortia	300 €
Others:	
Academic	400 €
Non-academic	600 €

Fill in the registration form from the summer course website and send it to: Petra.Vereecken@UGent.be.

Venue

Laboratory for Chemical Technology
Technologiepark 914
B-9052, Ghent. Belgium

For travel information see
http://www.lct.ugent.be/lct/contact

FASTCARD, BioGo and IAP FS2 have the honour to invite you to the summer school on

Sustainable Reaction and Reactor Engineering for Catalysis and Polymerization

RECaP

Held at Ghent University

http://www.lct.ugent.be/recap

About the Summer School

Chemical reactors have always played a crucial role in raw material conversion to added value products. Today's challenge is to extend the existing knowledge for conventional, i.e., fossil based, feeds towards more sustainable applications. Numerous factors must be considered when selecting the most appropriate and efficient chemical reactor, particularly when heterogeneously catalyzed reactions are concerned involving complex mixtures. Kinetic modeling is an essential tool for the design and optimization of chemical processes. It includes fundamental aspects such as stoichiometry, kinetics and thermodynamics and relates these in an integrated manner to the global chemical reactor performance. Microkinetic models help consolidating the fundamental information about a catalytic reaction at the smallest scale and guarantee adequate extrapolations from ideal, laboratory conditions to realistic, industrial operation, provided that the additional phenomena occurring at this larger scale are adequately accounted for.

This practically oriented course is especially designed to model intrinsic kinetic data acquired in an ideal laboratory reactor. As part of the course, the participants will elaborate several case studies such as hydrodeoxygenation, reforming, hydroisomerization, oxidative coupling of methane… The participants are also encouraged to bring their own experimental data to be used in case studies using the microkinetic engine.

Experienced mentors will support the development and application of strategies for the measurement of intrinsic kinetic data, mathematical methods used in the laboratory reactor simulation and parameter estimation. This complex and challenging task will be achieved by successful and target-oriented interaction of the participants and interchange, evaluation and validation of information from all accessible sources.

Program

Monday 14 September

Enrolment and welcome lunch

Presentation of the organizing projects

Reaction mechanism and kinetics

Poster session

Tuesday 15 September

Regression analysis

Chemical reactor design

Polymer synthesis in homogeneous media

Parallel workshop sessions

Dinner

Wednesday 16 September

Bench scale reactors

Catalysis

Polymer synthesis in heterogeneous media

Parallel workshop sessions

Thursday 17 September

Presentation of case studies and closing

Abstract Submission

On the first day of the Summer School, there will be a poster session with 1-minute flash introductions. To take part of the poster session, 1-page abstract must be submitted upon registration but no later than the 1st of September, 2015. Posters should be prepared and printed in A0 portrait format.

Posters will remain on display throughout the summer school to promote interaction among participants.

Secretariat

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