# TRAVEL

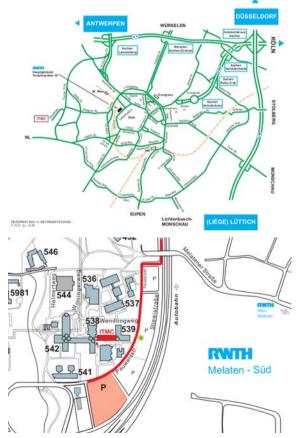
A detailed description on how to reach us by public transport or by car will be sent to all participants after their registration.

#### With public transport

By train: to Aachen (further information: www.bahn.de) From Aachen station it takes approximately 10 min by taxi or by bus No. 3B, direction 'Uniklinik'.

### By car

From North (Düsseldorf) and South (Liège) A44. Change to A4 at 'Autobahnkreuz' Aachen From West (Antwerp) and East (Cologne): A4. Leave A4 AC-Laurensberg, follow signs 'RWTH Melaten:



# FURTHER INFORMATION

### Venue

RWTH Aachen University, ITMC, Otto-Bayer Säle 1 and 2 Worringerweg 1, 52074 Aachen, Germany

### Accommodation

We suggest one of the following hotels:

- » Concorde Hotel Lousberg, www.concordehotel-lousberg.de
- » Mercure Hotel Aachen am Dom, http://www.mercure.com/de/hotel-5326-mercure-hotelaachen-am-dom/index.shtml
- » Aquis Grana, http://www.hotel-aquis-grana.de

Please, mention RWTH for booking at a reduced price.

### Schedule

Beginning:Wednesday,15 September 2010, 1:00 pmEnd:Friday,17 September 2010, 1:00 pm

Please note that the ProcessNet annual convention 2010 and the 28<sup>th</sup> DECHEMA annual convention for biotechnologists will take place from 21 to 23 September 2010 in Aachen.

### Language

The course will be held in English.

### Registration

Please complete and return the enclosed form or contact:

DECHEMA e.V. Training dept. P.O. Box 15 01 04 D-60061 Frankfurt am Main

 Phone:
 +49 69 7564 253

 Fax:
 +49 69 7564 414

 Internet:
 http://kwi.dechema.de/BioNoCo.html

 E-mail:
 gruss@dechema.de

### **Registration fee**

Industry: $590, -- \in$ University: $480, -- \in$ PhD and other students: $430, -- \in$ (incl. course materials, lunch and social activities)

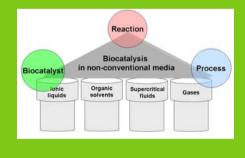
Registration deadline: 21 August 2010



### SUMMER SCHOOL

15 – 17 September 2010 Aachen

# Biocatalysis Using Non-Conventional Media





# BIOCATALYSIS USING NON-CONVENTIONAL MEDIA

The well known advantages of biocatalysis with excellent chemoselectivity, enantioselectivity, and mild reaction conditions render biocatalysis as a feasible alternative for new processes in the chemical industry. However, a key issue is the limitation implied by the use of aqueous systems. Water is rarely a good solvent for the substrate at hand, limiting productivity of the possible processes. Moreover, water may interfere with other reaction steps and/or downstream processing.

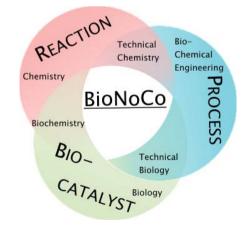
Non-aqueous or non-conventional reaction media, such as organic solvents, ionic liquids or supercritical fluids provide a potential solution. To assess the scope and limitations of non-conventional media for biocatalysis in synthetic applications, thermodynamic and kinetic phenomena in complex reaction systems have to be understood, and specific interactions between biocatalysts, media, and reactors have to be identified and developed into design criteria. The Research Training Group 'Biocatalysis using Non-Conventional Media (BioNoCo)' at RWTH Aachen University (www.bionoco.rwth-aachen.de) promotes the interdisciplinary education of young researchers in this highly topical field of biocatalysis.

The summer school presents this educational target for the first time to a wider audience. The course covers topics on relevant classes of biocatalysts, on properties of non-conventional media, and on methods and tools to analyse and integrate biocatalysts in non-conventional media for suitable processes.

# LECTURERS

- » Prof. Dr. M. Pohl, IBT2, FZ Jülich, DE (MPo)
- » Prof. Dr. P.J. Halling, University of Glasgow, UK (PH)
- » Dr.-Ing. A.C. Spiess, AVT.BioVT, RWTH Aachen, DE (AS)
- » Prof. Dr. N. Turner, University of Manchester, UK (NT)
- » Prof. Dr. F. Secundo, ICRM Milano, IT (FS)
- » Dr. M. Peters, BTS, Leverkusen, DE (MPe)
- » Dr. M. Fioroni, BioTec, RWTH Aachen, DE (MF)
- » Prof. Dr. R. A. Sheldon, TU Delft, NL (RS)
- » Prof. Dr. W. Kroutil, Universität Graz, AT (WK)
- » Prof. Dr. W. Leitner, ITMC, RWTH Aachen, DE (WL)
- » Prof. Dr. J. Woodley, DTU Lyngby, DK (JW)
- » Dr. O. Thum, Evonik-Goldschmidt, Essen, DE (OT)

The lecturers cover a wide range of expertise on biocatalysts, reaction and process technology and originate from both academia and industry. Well known national and international experts complement the experience built within the Aachen – Jülich research training group 'BioNoCo'.



The organisers thank the German Research Foundation (**DFG**) for financial support within the funding of GRK 1166/2.

### PROGRAMME

#### Wednesday, 15 September

- » Welcome and introduction
- » ThDP enzymes (MPo)
- » Non-conventional media thermodynamics (PH)
- » Gas/solid biocatalysis (AS)
- » Lab visits

### Thursday, 16 September

- » P450 monooxygenases (NT)
- » Lipases in organic solvents (FS)
- » COSMO-RS thermodynamic predictions (MPe)
- » Protein modelling in organic solvents (MF)
- » Ionic liquids, CLEAs (RS)
- » Deracemisation, cascade reactions (WK)

#### Friday, 17 September

- » Supercritical fluids (WL)
- » Process integration (JW)
- » Hydrogels, industrial applications (OT)

#### **Social Programme / Evenings**

Wednesday night: Barbecue in 'Gut Melaten' Thursday night: Historic city center tour

Dinner in historic city center

### DECHEMA e.V. Training dept. P.O. Box 15 01 04 D-60061 Frankfurt am Main

### Registration to the DECHEMA course 3166

BioNoCo

### "Biocatalysis Using Non-Conventional Media", Aachen, 15-17 September 2010 Deadline for registration: 21 August 2010

Participant				
Mrs 🗌 Mr [	Title			
Name				
Invoice addr	ess			
Company				
Department				
Industry 🗌	University 🗌	Student *		

\* Please attach proof.

The course fee amounts to  $\in$  590.- (industry),  $\in$  480.- (university),  $\in$  430.- (PhD and other students). Please do not transfer the fee before having received the final confirmation of participation by DECHEMA. If we receive a notice of withdrawal at least two weeks prior to the beginning of the course, the participation fee less 10% for administration expenses will be reimbursed. Thereafter, a reimbursement will not be possible.