

Course '**Catalysis for Sustainability**'  
Amsterdam, 5-6 October 2010

## Programme

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### Lecturers

Prof. I.W.C.E. Arends, Delft University of Technology  
Prof. A.P.C. Faaij, Utrecht University (Copernicus Institute)  
Dr. J. Van Haveren, Food & Biobased Research Wageningen  
Prof. E.J.M. Hensen, Eindhoven University of Technology  
Dr. S.R.A. Kersten, University of Twente  
Dr J.P. Lange, Shell  
Dr. J.J. Lerou, Velocys (Ohio, United States)  
Prof. A.J. Minnaard, University of Groningen  
Prof. R.A. van Santen, Eindhoven University of Technology  
Dr. K. Seshan, University of Twente  
Prof. W.P.M. Van Swaaij, University of Twente  
Dr E.T.C. Vogt, Albemarle  
Prof. J.G. de Vries, DSM  
Dr. B. Wentink, BASF Ludwigshaven (Germany)

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### Organisation

Dr. K. Seshan, University of Twente  
Prof. E.J.M. Hensen, Eindhoven University of Technology  
Prof. R.A. Van Santen, Eindhoven University of Technology  
Drs. M.J.T. Schmets, CatchBio

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### Tuesday 5 October

10.00h                      Arrival, registration  
10.45h                      Introduction

#### A. Current fossil fuel based industry

11.00h – 12.00h              Current refinery and petrochemical processes for fuels & chemicals  
*Dr E.T.C. Vogt, Albemarle*

12.00h – 13.00h              Lunch

13.00h – 14.00h              Current issues related to fossil usage, environmental problems, guidelines,  
need for change, including biorefinery  
*Dr J.P. Lange, Shell*

#### B. Fine chemicals & pharmaceuticals

14.00h – 15.00h              Renewable resources for fine-pharma chemicals – Sustainable building  
blocks  
*Prof. I.W.C.E. Arends, Delft University of Technology*

15.00h – 15.30h              Tea / coffee

15.30h – 16.30h              C-C, C-N, C-O bond activation/conversion in biobased chemicals  
*Prof. A.J. Minnaard, University of Groningen*

16.30h – 17.30h              Liquefaction direct upgrading of biomass, (catalytic) pyrolysis, HTU,  
digestion (*lecture prof. De Vries (DSM) has been shifted to 6 October*)  
*Dr. K. Seshan, University of Twente*

18.30h                          Dinner



### Wednesday 6 October

07.30h – 09.00h Breakfast

#### C. Bulk Chemicals from biomass

09.00h – 10.00h Chemicals from sugars, cellulose, lignin etc  
*Dr. J.J. Lerou, Velocys (Ohio, United States)*

10.00h – 11.00h Biopolymers/ biomaterials  
*Dr. J. Van Haveren, Food & Biobased Research Wageningen*

11.00h – 12.00h Industrial perspective – BASF  
*Dr. B. Wentink, BASF Ludwigshaven (Germany)*

12.00h – 13.00h Lunch

#### D. Biofuels, energy from biomass

13.00h – 14.00h Gasification of biomass – methane, syngas, hydrogen etc, biodiesel, glycerol problem etc.  
*Prof. W.P.M. Van Swaaij, Dr. S.R.A. Kersten; University of Twente*

14.00h – 15.00h Sugar conversion, furan chemistry  
*Prof. E.J.M. Hensen, Eindhoven University of Technology*

15.00h – 15.30h Tea / coffee

15.30h – 16.30h Industrial perspective  
*Prof. J.G. de Vries, DSM*

#### E. Biomass for sustainability

16.30h – 17.30h Biomass as feedstock – Types, waste, food chain issues, economics, comparison with fossil feedstock, Life cycle analysis  
*Prof. A.P.C. Faaij, Utrecht University (Copernicus Institute)*

## Route

Casa 400 is located at the edge of the centre of Amsterdam. Amsterdam Amstel station is only a three minute walk and offers trains, busses, trams and underground. Public transport will take you to the heart of Amsterdam in 10 minutes. By car, the A10 ring road is within easy reach.

Casa 400 is located 3 minutes away from Amsterdam Amstel station.

- Amsterdam city centre -> 9 minutes by underground
- Schiphol Airport-> 26 minutes by train/ 20 minutes by taxi
- RAI Exhibition and Congress centre -> 7 minutes by underground / bus 15

## Car

Casa 400 is easy to reach from all directions. On the A10 ring road you take exit S112 and follow signs for Centrum. De Gooiseweg takes you to the roundabout at the Amstel station. Go straight on and then turn right at the second traffic lights onto the Ringdijk. You will see Hotel Casa 400 on your right.

## By public transport

Are you visiting us by public transport? Within three minutes walk from the Amstel Station you will arrive in Hotel Casa 400. The train, metro, tram or bus will take you to the Amsterdam Amstel Station. At the Amstel Station you will follow the directions to the 'Julianaplein'. You can take the traffic lights on the right of the roundabout towards the Fortis building. At the Fortis building on the left side you can take the tunnel. Take the first street on your right and then the first street on your left which is the Eerste Ringdijkstraat. From there you can already see the hotel at the end of the street.

## Parking possibilities

When you arrive at Casa 400 you can park your car in our underground car park at a reduced rate. If the car park is full, you can park in the street at an hourly rate of €3.00, Monday to Saturday from 9.00 to 21.00 or at a daily rate of €21,60.

