

The 11th Cologne Process Engineering Conference will be held on February 01 and 02, 2018

Venue: TH Köln, Hörsaal 9 (Thursday) / Hörsaal 14 (Friday)

This year, presentations are related to “**Sustainable process engineering**” and correspond to one of the five conference topics:

1. Novel concepts to reduce CO₂ emissions in energy intensive chemical processes
2. Cradle-to-cradle principle to reduce raw materials consumption
3. Procedural approaches to avoid downcycling and contamination issues within novel recycling processes
4. Production of base and specialty chemicals directly from CO₂, H₂O and renewable energies: Reactions, reactors, processes, costs...
5. Manufacturing fine chemicals and semi-finished products from renewable resources instead of fossil fuels

Furthermore, there will be a poster presentation covering the different fields of activity of the Institute of Chemical Process Engineering and Plant Design

| Conference Program / Thursday, 01 Feb | | Time |
|---------------------------------------|--|-------|
| #01 Lars Ludwig | Green methanol: Recycling CO ₂ and storing renewable energy | 15:45 |
| #02 Fessi, Charfeddine | Biodiesel production from waste cooking oil | 16:15 |
| #03 Thomas Cholewa | Biochemical production of 1,3-propanediol from glycerol | 17:00 |
| #04 Lukas Hillenbrand | Microbial electrosynthesis: mechanisms and possibilities | 17:30 |
| Conference Program / Friday, 02 Feb | | Time |
| #05 Sebastian Schürheck | Carbon dioxide emissions-reduction technologies for industrial production of aluminum | 09:00 |
| #06 Alena Kasper | Energy efficiency and field of application of intensification of processes using ultrasound | 09:30 |
| Owen P. Jappen, Evonik | Guest lecture: Application of membrane technology for wastewater reduction and raw material recovery | 10:00 |
| | Coffee break | 10:45 |
| #07 Tobias Wolf | Power-to-Liquid (PtL): An alternative source of fuel using CO ₂ and H ₂ O as raw materials | 11:15 |
| #08 Marc-Philipp Betz | Bioenergy production from industrial wastewater by anaerobic membrane bioreactors | 11:45 |
| | Lunch & Poster session (1) | 12:15 |
| #09 Georg Salmon | Power to methane – Integration of renewable energy sources | 13:00 |
| #10 Kadir Özcubukcu | How to utilize methane, produced by sustainable energy, as raw material in contrast to actual raw materials like oil | 13:30 |
| | Coffee break & Poster session (2) | 14:00 |
| #11 Schöttke, Niklas | Solid Oxide Fuel Cells – Opportunities to supply energy in combined cycles with gas turbines | 15:30 |
| #12 Saskia Schlatter | Can biodegradability in terms of the cradle-to-cradle principle reduce the demand for raw materials? | 16:00 |
| #13 Tobias Esser | Bioplastics – An alternative to petroleum-based plastics? | 16:30 |
| | Poster award; Best presentation award | 17:00 |
| | End of Conference | 17:15 |

A module of the Cologne
Process Engineering
master program