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Selective catalytic transformation of biogenic feedstocks

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The German Catalysis Society (GeCatS) organizes an annual infoday on selected catalytic topics of great importance and general interest. The topic of this year's event was "Selective catalytic transformation of biogenic feedstocks". It took place on November 22nd at the DECHEMA-Haus in Frankfurt/Main. The half-day program attracted 95 participants equally distributed amongst academic as well as industrial scientists. Thereby, not only the German Catalysis Community but also several international scientists got the chance for extensive networking across all the different disciplines related to catalysis and process development for the conversion of renewable feedstock.

The program consisted of six presentations of the different related fields given by internationally renowned scientist. A general introduction on the future bioeconomy regarding raw materials, processes and products was given by Prof. Thomas Hirth from the Fraunhofer IGB in Stuttgart/Germany. In the second talk Prof. James Dumesic from the University of Wisconsin in Madison/USA presented strategies for the conversion of lignocellulosic biomass with a focus on the development and investigation of solid catalysts tagging the specific challenges in biomass conversion. The next speaker, Dr. Jean-Luc Dubois from Arkema France, focused on the homogeneous, heterogeneous and enzymatic conversion especially of triglycerides as well as glycerol in modern biorefinery concepts from an industrial point of view. The fourth talk was given by Prof. Martin Kaltschmitt from the TU Hamburg-Harburg/Germany. He pointed out the special challenges and opportunities occurring for the use of biofuels in aviation. Dr. Philip Engel from Evonik Industries in Marl/Germany gave an industrial point of view on the utilization of white biotechnology with a focus on the production of fine chemicals. The final presentation was a tandem talk from RWTH Aachen University/Germany given by Manuel Dahmen from the Process Systems Engineering together with Prof. Jürgen Klankermayer from the Institute of Technical and Macromolecular Chemistry. They presented the fuel design process within the RWTH Aachen cluster of excellence "Tailor-made fuels from biomass" (TMFB) in which interdisciplinary research for biofuel development is carried out in cooperation of various groups from chemistry, biotechnology, process engineering as well as combustion engineering.

Overall, the infoday was very successful. It allowed scientists from various fields to think outside the box and get an idea of different approaches within all affected fields in biomass conversion. Thus, a better view on the overall picture for the development of future biorefinery schemes was provided stimulating intense discussion, networking and optimism for a sustainable future.