

February 6, 2025

Rostock chemist honored with Raney Award in the USA

Prof. Dr. Matthias Beller from the Leibniz Institute for Catalysis has received the Raney Award from the Organic Reactions Catalysis Society (ORCS) for his services to research into innovative, more environmentally friendly catalyst materials. The award of this international society for organic catalysis will be presented to the Rostock chemist at the 29th ORCS conference from February 9-13 in Myrtle Beach, South Carolina.

The global chemical industry is facing the challenge of replacing its fossil raw material base with renewable raw materials such as biomass or carbon dioxide. The research and development of innovative catalysts for corresponding processes has an important role to play here.

With this in mind, every two years the Raney Award recognizes outstanding scientific contributions to the development of new catalysts, particularly those based on inexpensive and environmentally friendly metals, for the synthesis of organic chemicals. These are used in all areas of our daily lives - from dyes to medicines, from fibers to perfume. The main aim is to replace expensive and rare precious metals such as palladium, platinum and rhodium as catalyst materials.



Matthias Beller. Photo: LIKAT/Gohlke

According to a letter from the award committee, Matthias Beller and his research group have discovered a large number of practicable catalysts based on iron, cobalt and manganese in recent years and have contributed to the fundamental understanding of the corresponding chemical processes with their research. In addition, they have also ensured the practical implementation of the results in industry-relevant chemical processes.

The research group's outstanding work includes the development of catalyst materials in which individual iron atoms behave like precious metal atoms. These catalysts have universal applications for the production of many classes of chemical compounds, such as aldehydes, ketones, esters, acids, nitriles and amides, all of which are important building blocks of organic chemistry. The committee also acknowledged the fact that Matthias Beller returned "to the academic world" after five years of research in the chemical industry. This happens very rarely and contributes to the transfer of basic research into real applications.

The Raney Award was established by the ORCS in 1992. Murray Raney (1885-1966), an American process engineer, developed one of the most important catalysts for hydrogenation reactions. Hydrogenation is one of the most important reactions in large-scale chemical processes such as fat hardening. It also played a key role in the founding of the Catalysis Institute in Rostock in 1952, which is now the Leibniz Institute for Catalysis.

Contact:

Dr. Martha Höhne

(Staff, Public Relations)

Martha.hoehne@catalysis.de

0381 1281 382