

GDCh Awards Sponsorship Prize to Jacob Schneidewind for his Research on CO₂ and Hydrogen

This year, the Carl Roth Prize 2022 goes to Dr. Jacob Schneidewind. With this award, the German Chemical Society, GDCh, honors his work on the use of CO₂ as a raw material and on photochemical water splitting, both topics that Jacob Schneidewind researched at the Rostock Leibniz Institute for Catalysis, LIKAT. In mid-2021, he moved to RWTH Aachen University.

The award honors the young chemist's findings from his master's thesis and doctorate. In his master's thesis, Jacob Schneidewind, working in the team of Dr. Ralf Jackstell at LIKAT, found a way to produce the basic chemical methanol from carbon dioxide and hydrogen more effectively than before. Using a cobalt catalyst, he succeeded, among other things, in halving the process temperatures.

The aim of such research is to return the waste product and climate-damaging gas carbon dioxide to the material cycle. This work is key to a CO₂-neutral economy.

As a PhD student in the department of LIKAT Director Prof. Dr. Matthias Beller, Jacob Schneidewind worked on the extraction of hydrogen via photolysis, which is also used by green plants. He uncovered the molecular mechanism of a completely new type of water splitting, which could also be used technically in the long term.

The award ceremony is part of the spring symposium at which the JungChemikerForum JCF, the young scientists' organization of the GDCh, meets in Hannover from March 23 to 26. The symposium is one of the largest conferences in Europe organized by young scientists for their peers.



Fig.: Jacob Schneidewind in Aachen
(Photo by Martin Grolms)

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