



Industrial Chemistry & Heterogeneous Catalysis

The research goal of the group is the use of renewable energy for the heterogeneously catalyzed activation of small molecules such as CO_2 , H_2O , N_2 or short-chain alcohols.

We explore various ways of energy input, such as the use of light in photocatalysis, renewable electricity in electrocatalysis, new heat sources in thermal catalysis, or combinations thereof.

A diverse toolbox of operando spectroscopy is applied to identify the active sites under reaction conditions to describe structure-function relationships. This includes the development of novel high-performance reactors and spectroscopic cells.

