

**Current positions**

Head of the Institute of Catalysis Research and Technology at the Karlsruhe Institute of Technology (KIT) (since 2012)
Spokesperson of the bioliq project (since 2012)
Spokesperson of the Helmholtz Topic “Bioenergy”, Program “Renewable Energies” (since 2012)

Previous positions

Head of Department “Chemical Reaction Engineering”, Evonik Industries AG, Marl (2002-2012)
Different positions with Degussa in Germany and USA in Research & Development, Production (1994-2002)

Scientific degree

Full Professor of Process Technology & Catalysis, KIT (2012)
Dr.-Ing. (PhD) in Chemical Engineering, University of Karlsruhe (TU) (1994)

Recent research topics

Chemical reaction engineering; scale-up of catalytic and thermochemical conversions; catalyst manufacturing; applied catalysis in the field of renewable derived fuels, technologies for circular carbon economy

Awards, honors, memberships

Member of the steering committees of ProcessNet and VDI-GVC (since 2017)
Head of the subject division of Chemical Reaction Engineering at ProcessNet (since 2019)

Publications/Patents (5 most important)

- D. Steinbach, A. Kruse, **J. Sauer**, Pretreatment technologies of lignocellulosic biomass in water in view of furfural and 5-hydroxymethylfurfural production- A review, *Biomass Conversion and Biorefinery*, 7 (2), 247 (2017)
[doi:10.1007/s13399-017-0243-0](https://doi.org/10.1007/s13399-017-0243-0)
- D. Oestreich, L. Lautenschütz, U. **Arnold**, **J. Sauer**, Reaction kinetics and equilibrium parameters for the production of oxymethylene dimethyl ethers (OME) from methanol and formaldehyde, *Chem. Eng. Sci.* 163, 92 (2017)
[doi:10.1016/j.ces.2016.12.037](https://doi.org/10.1016/j.ces.2016.12.037)
- R. Ahmad, M. Hellinger, M. Buchholz, H. Sezen, L. Gharnati, C. Wöll, **J. Sauer**, J. M. Döring, **J.-D. Grunwaldt**, U. **Arnold** et al., Flame-made Cu/ZnO/Al₂O₃ catalyst for dimethyl ether production, *Catalysis Commun.* 43, 52 (2014)
[doi:10.1016/j.catcom.2013.08.020](https://doi.org/10.1016/j.catcom.2013.08.020)
- U. **Arnold**, L. Lautenschütz, D. Oestreich, **J. Sauer**, Method for the preparation of oxymethylene dialkyl ethers and their use; EP 2987781 A1 20160224 (2016)
- N. Brausch, A. Ebberts, G. Stochniol, M. Trocha, Y. Oenal, **J. Sauer**, B. Stuetzel, D. Wolf, H. Stueger, Process for preparing higher hydridosilanes; WO 2010003729 A1 20100114 (2010)