

UniCat Colloquium

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Synthetic Chemistry with Laughing Gas

Once used and abused as an anesthetic and recreational drug, nitrous oxide (N₂O, 'laughing gas') is nowadays making the headlines as a greenhouse gas and ozone-depleting substance. Chemical reactions with N₂O are hampered by the inert character of the gas. Still, there are quite a few compounds which are able to react with N₂O at normal pressure and temperature. In the lecture, I will describe efforts to use nitrous oxide as a reagent in synthetic chemistry. The focus will be on reactions which are carried out in homogeneous solution under (relatively) mild conditions. Due to the low intrinsic reactivity of N₂O, selective oxidation reactions of highly reactive compounds are possible. Furthermore, it is shown that transition metal complexes can catalyze oxidation reactions with high turnover numbers. In the final part of the lecture, the utilization of N₂O as a building block for more complex molecules is discussed. It is shown that N₂O can be used as an N-atom donor for the synthesis of interesting organic molecules such as triazenes and azo dyes.

Wednesday, May 20, 2015 at 5:15 PM

TU Berlin, Institute of Chemistry
Straße des 17. Juni 115, 10623 Berlin

Building C, Lecture Hall **C 264**

Prof. Driess (TUB)
Organizer

Coffee and cake will be served 30 minutes before the lecture. Guests are cordially invited to attend!
Prof. Dr. Matthias Driess - Chair of the Cluster of Excellence UniCat - www.unicat.tu-berlin.de



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