IAP Seminar

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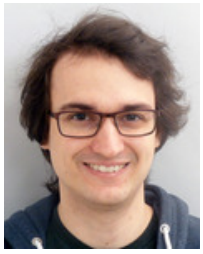

Tuesday, 6th April, 2021, 16:00 s.t.

The seminar will be held as a Zoom Meeting
https://tuwien.zoom.us/j/96062751637?pwd=ZkRUWnlkUFFZb2pEdm55ZzFteTBNdz09
Meeting ID: 960 6275 1637 Passcode: 9ANd8XWj

Hematite as a Support Material for Single Atom Catalysis

Iron oxides have been used as support materials in some of the most influential papers on single atom catalysis, and remain a popular choice due to their low cost and high stability. In the literature, the FeO_x catalysts are often modelled as hematite (α-Fe_2O_3), specifically the (0001) facet. However, this surface remains poorly understood: The most commonly observed termination in experiment is a superstructure with unknown atomic configuration, and stabilizing any monophase surface appears to be challenging. Adatom adsorption has not been experimentally investigated in any detail. I will discuss both the (0001) facet and the less investigated $(1\bar{1}02)$ surface, which exposes either a simple bulk-truncated termination or a reduced (2 × 1) reconstruction. I will present experimental results on the stabilization of adatoms on the $(1\bar{1}02)$ surface and discuss the suitability of the two facets as model systems.

All interested colleagues are welcome to this seminar lecture
(30 min. presentation followed by discussion).

Friedrich Aumayr
(LVA-Leiter)

Ulrike Diebold
(Seminar Chair)