

PHYSIKALISCHES KOLLOQUIUM

Wintersemester 2026/27

Das Kolloquium findet (soweit nicht anders angegeben) **jeweils montags um 14:15 Uhr im Röntgen-Hörsaal** des Physikalischen Instituts, Hubland Campus Süd, Universität Würzburg **und online via Zoom** statt.

Zugangsdaten siehe <https://www.physik.uni-wuerzburg.de/aktuelles/veranstaltungen-aus-der-physik/physikalisches-kolloquium/>

16.11.2026

Prof. Dr. Dr. h.c. Hans-Peter Steinrück

Friedrich-Alexander-Universität Erlangen-Nürnberg, Lehrstuhl für Physikalische Chemie II

Mobility and Reactivity of Porphyrins on Metal Surfaces

Abstract

Metalloporphyrins are versatile functional building blocks in many biological and biochemical processes. In addition, these molecules are also utilized in technical applications, retaining their highly functional nature within an inorganic framework. Examples include gas sensors, solar cells and catalysts. In this presentation, the surface chemistry of porphyrins on metal substrates will be addressed by X-ray photoelectron spectroscopy and scanning tunneling microscopy. Specific topics are the interplay between porphyrin-substrate and porphyrin-porphyrin interactions, the role of the substrate, surface diffusion, and in particular the synthesis of metalloporphyrin monolayers by direct metalation of free base porphyrins under UHV conditions. Particular attention is given to tailoring of these properties by functionalization of the porphyrins.

Für die Dozentinnen bzw. Dozenten der Fakultät

Prof. Dr. Trauzettel, Dr. Ünzelmann, Hr. Müller