

**O 9: Invited Talk (J.Michael Gottfried)**

Time: Monday 14:00–14:45

Location: HSZ 02

**Invited Talk**

O 9.1 Mon 14:00 HSZ 02

**Surface-confined coordination chemistry with porphyrins and phthalocyanines** — ●J. MICHAEL GOTTFRIED — Lehrstuhl für Physikalische Chemie II, Universität Erlangen-Nürnberg, Germany

Surface-confined coordination chemistry focuses on structure and reactivity of adsorbed metal complexes, which are promising candidates for novel heterogeneous catalysts and sensors with well-defined, uniform active sites. If the complexes possess vacant coordination sites, the substrate surface can directly interact with the metal center and influence its electronic structure. In this context, porphyrins, phthalocya-

nines, and other tetrapyrroles with their planar, four-fold coordination environment are especially versatile ligands and their transition metal complexes are well suited for the chemical functionalization of surfaces. This lecture gives an overview of recent advances in the field of surface chemistry and physics of metalloporphyrins. In particular, the following aspects will be addressed: (1) Self-assembly and intramolecular conformation, (2) Surface-confined synthesis by direct metalation, (3) Electronic interaction between metal center and substrate, and (4) Electronic and structural effects of the axial coordination of small molecules to the metal centers.