

# EINLADUNG

zum Vortrag  
von

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**A look at the physics and chemistry of complex surfaces**

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**Dienstag, 20. Mai 2014, um 16:00**

Technische Universität Wien, Institut für Angewandte Physik  
Seminarraum 134A, Turm B (gelbe Leitfarbe), 5. OG  
1040 Wien, Wiedner Hauptstraße 8-10

## Abstract:

Surface reactions can be followed in detail using X-ray photoelectron spectroscopy (XPS or ESCA). From the binding energies of the adsorbate and substrate core levels, detailed information on the chemical composition, chemical state (e.g. oxidation state), adsorption sites, but also on the photoemission process itself can be derived. Different examples will be addressed in this presentation. The first example deals with the **oxidation of sulphur** on stepped platinum surfaces. The second example deals with the characterization and modification of the **surface properties of ionic liquids** (ILs). Due to their low vapour pressure, the full arsenal of UHV-based surface science methods can be applied to investigate this material class and detailed information can be derived. Particular emphasis will be given on the composition of the IL/vacuum interface, the properties of ultrathin IL layers on metal substrates, i.e., the IL/metal interface, and on in situ reaction studies in ILs. The third example addresses the adsorption of - **porphyrins on metal surfaces**. In particular, we focus on the synthesis of metalloporphyrin monolayers by direct metalation of free base porphyrins.

**FWF SFB F45 „Functional Oxide Surfaces and Interfaces (FOXSI)“**

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