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# IAP-SEMINAR

## EINLADUNG

Termin: **Dienstag, 13.11.2012 um 16:00 Uhr**  
Ort: **Technische Universität Wien,  
Institut für Angewandte Physik,  
Seminarraum 134A, Turm B (gelbe Leitfarbe), 5. OG  
1040 Wien, Wiedner Hauptstraße 8-10**

Vortragender: **Prof. Alexander Schneider**  
Lehrstuhl für Festkörperphysik, Universität Erlangen-Nürnberg

Thema: **Adsorption of Molecules on Cobalt Oxide Thin Films**

### Kurzfassung

Transition metal oxides are of great interest for a variety of reasons. From a Physicist's point of view, the interplay between delocalized and localized electrons gives rise to a plethora of fascinating properties, mostly connected with the magnetic properties of the materials. I will discuss complexity of the interplay between structural and magnetic respectively electronic properties of a particular example of a thin bi-layer cobalt oxide film on Ir(100). From a Chemist's point of view oxide surfaces play an important role in catalysis not only as inert supports of catalytically active agents but also as a catalyst themselves. Our understanding of the interaction of molecules with such oxide surfaces lags behind the insight that was generated on the interaction of molecules with metal surfaces. This is partially due to the fact that insulating bulk oxides are not easily accessible to surface science techniques. Here thin oxide films may pose an interesting alternative.

I will discuss first experiments by low-temperature STM illustrating both, the adsorption of a large molecule (Co-Phthalocyanine) and of CO on different phases of the thin film CoO on Ir(100) system.

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*Alle interessierten Kolleginnen und Kollegen sind zu diesem Seminar  
(45 min mit anschließender gemeinsamer Diskussion) herzlich eingeladen.*

*J. Redinger e.h.  
(Seminar-Chairperson)*

*H. Störi e.h.  
(LVA-Leiter)*