

## Vortragsankündigung

- im Rahmen des UniCat-Kolloquiums -

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Es spricht: Prof. Elio Giamello

Università di Torino, Torino, Italy

Zeit: Donnerstag, 24. Juli 2008

11:15 Uhr

Ort: Fritz-Haber-Institut der Max-Planck-Gesellschaft

Abteilung Chemische Physik, Seminarraum

Gebäude P: http://www.fhi-berlin.mpg.de/map.epl

Faradayweg 16, 14195 Berlin

Thema: Electrons and holes at the surface of poly-

crystalline ionic oxides. A survey on ten years

of investigation.

Abstract: Surface point defects on ionic oxides have attracted the attention of researchers both for their intrinsic importance and for the role they play

in modifying the catalytic properties of supported metal atoms or metal clusters. In the present seminar an overall survey on several years of activity on the topics of surface trapped electrons and electron-holes will be presented. It will be shown how the concept of surface trapping has evolved, starting from the unique model of the electron stabilized in an oxygen vacancy, towards the idea of the existence of several morphological features of the crystal (low coordinated ions, reverse corners etc.) potentially capable of the electron stabilisation. The nature of elusive species of the electron-holes (observed at the surface in particular conditions only) will be discussed. The role of EPR spectroscopy and of its coupling with theoretical modelling in the

description of surface isolated charge carriers will be evidenced.

Organisator: Prof. Dr. H.-J. Freund (FHI der MPG)