



Der Wissenschaftsfonds.

Special Research Program (SFB) F45 Functional Oxide Surfaces and Interfaces (FOXSI)

2nd Annual PhD Seminar

18.-21. March 2013, ÖTK Schutzhause Hochkar, 3345 Göstling/Ybbs, Austria

Monday, March 18th, 2013

- 8:00 – ca. 11:00 Bus transfer from Vienna Karlsplatz to Hochkar
- 11:00 Check-in
- 12:00 – 13:00 **Get-together and LUNCH**
- 13:30 – 16:30 **Discussions**
- 16:30 – 18:30 **DINNER**
- 18:30 – 19:00 **Gareth Parkinson, Zbynek Novotny, and Ulrike Diebold (presenter)**
“Surface studies of Fe₃O₄(001)” (07)
- 19:00 – 19:30 **Hao Li (Project Rupprechter)**
“The interaction between water and zirconia ultra-thin film: from UHV to elevated pressure conditions” (02)
- 19:30 – 20:00 **Jake Choi (Project Schmid)**
“Water adsorption on ultra-thin ZrO₂/Pt₃Zr(0001)” (05)
- 20:00 – 22:00 **Poster Session**

Tuesday, March 19th, 2013

- 07:30 – 08:30 **Breakfast**
- 08:30 – 09:00 **Christoph Rameshan**
“Water adsorption on a vanadium surface studied by ambient pressure XPS - Consequences for hydrogen purification by V-metal membranes”
- 09:00 – 09:30 **Ramona Thalinger (Project Klötzer)**
“Formation and Stability of NiO and its impact on Nickel catalysed Methane Reforming” (03)

09:30 – 10:00	COFFE BREAK
10:00 – 10:30	Lukas Mayr (Project Klötzer) "H ₂ O-activation and fuel reforming on Cu(ox)-Zr(ox) model catalyst surfaces" (03)
10:30 – 11:00	Wernfried Mayr-Schmölzer (Project Redinger) "Ab-Initio studies of metal supported thin zirconia films" (11)
11:00 – 11:30	General Discussion
11:30 – 12:30	LUNCH
12:30 – 16:30	Discussions
16:30 – 18:30	DINNER
18:30 – 19:00	Florian Mittendorfer (Project Redinger) "Going beyond DFT: Accurate adsorption energies from manybody perturbation theory" (11)
19:00 – 19:30	Zhiming Wang (Project Diebold) "STM and photoemission study of vacancies and hydroxyls at the SrTiO ₃ (110)-(4×1) surface" (07)
19:30 – 20:00	Marcel Hieckel (Project Redinger) "Ab-initio studies of Sr ₃ Ru ₂ O ₇ (001) and SrTiO ₃ +TiO _x (110) surfaces"(11)
20:00 – 22:00	Poster Session

Wednesday, March 20th, 2013

- 07:30 – 08:30 **Breakfast**
- 09:00 – 12:00 General Discussion – Project Planning
- 12:00 – 13:00 **LUNCH**
- 13:00 – 16:30 Discussions
- 16:30 – 18:30 **DINNER**
- 18:30 – 19:00 **Alex Opitz (Project Fleig)**
“Electrode kinetics of mixed conducting oxides in reducing and oxidising atmospheres“ (09)
- 19:00 – 19:30 **Katharina Langer-Hansel (Project Fleig)**
“Oxygen tracer diffusion in Fe-doped SrTiO₃ and in Sr-doped LaFeO₃ investigated by ToF-SIMS“ (09)
- 19:30 – 20:30 **General Assembly**

Thursday, March 21th, 2013

- 07:30 – 08:30 **Breakfast**
- 10:00 Bus transfer to Vienna, Karlsplatz (return ca. 12:00)

Posters:

Astrid Kitla (P 02):

“Ceria/Zirconia and Zirconia based Nickel Catalysts for Methane Reforming”

Raffael Rameshan (P 03):

“Formation of carbonaceous phases and carbon growth kinetics on Ni foam”

Eva Maria Köck (P 03):

“Characterization of the reactivity of Y₂O₃, YSZ and ZrO₂ towards the components of the water gas shift reaction using in-situ FT-IR-Spectroscopy”

Michaela Kogler (P 03):

“In-situ Electrochemical Impedance Spectroscopy on Y₂O₃ and YSZ”

Ivan Bepalov (P 04):

“Reaction fronts propagation in CO oxidation on Pd-powder catalysts”

Bernhard Stöger (P 07):

“Scanning Tunneling Microscopy study of single-crystalline Sr₃Ru₂O₇”

Jiri Pavelec & Daniel Halwidl (P 07):

“High Precision Molecular Beam for Surface Reactivity Studies”

Oscar Gamba & Benjamin Daniel (P 07):

“Water gas shift chemistry at the Fe₃O₄ (001) surface”

Sandra Kogler (P 09):

“La_{0.6}Sr_{0.4}FeO_{3.5} as mixed conducting electrode material in O₂ as well as H₂ atmosphere”

Aparna Date (P 10):

“Synthesis of single source precursors for NiO/ZrO₂ nanocomposites”

Florian Mittendorfer & Josef Redinger (P 11):

“CoO(111) bilayer on Ir(100) revisited: An incommensurate Moiré overlayer with strong local binding”