

**COST D-41: “Inorganic Oxide Surfaces and Interfaces”  
Meeting of WG4 Jointly with Members of WGs 1,2 and 3  
April 2-3, 2009**

*Meeting Location:*

Room E7 (Ground floor) Department of Physics and Astronomy  
University College London, Gower Street, London WC1E 6BT

**Organisers:**

Prof. Alexander Shluger; Ms Denise Ottley

**All talks 25 min + 10 min discussion**

*Scientific Programme:*

**Thursday, April 2**

13.50 – 14.00 – Welcome and Introduction – **Alexander Shluger**

**Session 1:** TiO<sub>2</sub> surfaces I. Discussion Leader – **Peter Varga**

14.00 – 14.35 **Geoff Thornton** (London) The structure of light harvesting surfaces

14.35 – 15.10 **Michael Bowker** (Cardiff) The surface structure of TiO<sub>2</sub> (110) and the effect of reduction

15.10 – 15.45 **Stefan Wendt** (Aarhus) Reactions of water and oxygen species on TiO<sub>2</sub>(110) studied by STM

**15.45 – 16.15 Coffee Break**

**Session 2:** TiO<sub>2</sub> surfaces II. Discussion Leader – **Michael Reichling**

16.15 – 16.50 **Marek Szymonski** (Krakow) Self-assembly of organic molecules on rutile titanium dioxide surfaces

16.50 – 17.25 **Christiana Di Valentin** (Milano) Dopants and defects in TiO<sub>2</sub>

17.25 – 18.00 **Markus Heyde** (Berlin) Detailed Frequency Modulated Dynamic Force Microscopy Studies on Oxide Films

18.00 – 18.35 **Martin Castell** (Oxford) Oxide island growth on SrTiO<sub>3</sub> surfaces

**Discussion**

**19.30 Dinner**

## Friday, April 3

### Session 3: Ice surfaces and interfaces. Discussion Leader – **Geoff Thornton**

9.00 – 9.35 **Karina Morgenstern** (Hannover) Ice on metal surfaces: Structure and electron dynamics

9.35 – 10.10 **Angelos Michaelides** (London) Towards a first principles understanding of water-solid interfaces

10.10 – 10.45 **Matthew Watkins** (London) Charged intrinsic defects at the ice Ih surface

### 10.45 – 11.10 Coffee Break

### Session 6: Steps at oxide surfaces. Discussion Leader – **Martin Castell**

11.10 – 11.45 **Peter Varga** (Wien) Step-Orientation-Dependent Oxidation: From 1D to 2D Oxides

11.45 – 12.20 **Svetlozar Surnev** (Graz) Step-induced stabilization of strained  $Mn_xO_y$  overlayers on vicinal Pd(100) surfaces

### 12.20 – 13.20 Lunch

### Session 5: Clusters and defects. Discussion Leader – **Markus Heyde**

13.20 – 13.55 **Jeppe Vang Lauritsen** (Aarhus) Non-contact AFM studies of  $\alpha\text{-Al}_2\text{O}_3(0001)$  : Atomic-scale surface structures and morphology of supported Cu nanoclusters

13.55 – 14.30 **Michael Reichling** (Osnabrück) New developments in understanding defects on  $\text{CeO}_2(111)$

14.30 – 15.05 **Vaño Sammelselg** (Tartu) AFM and Raman spectroscopy studies of graphene/oxide structures

### 15.05 – 15.30 Coffee Break

### Session 6: Molecules at surfaces. Discussion Leader – **Angelos Michaelides**

15.30 – 16.05 **Andris Gulans** (Helsinki) The role of the van der Waals interaction in the adsorption of organic molecules on surfaces

16.05 – 16.40 **Tom Trevethan** (London) Adsorption and diffusion of truxene molecules on KBr

### 16.40 General Discussion and Conclusion

### *Poster Presentations:*

**Javier Carrasco** Density functional theory studies of water-metal interfaces

**Erlend Davidson** First principles calculations of vibrational spectra of water on metals

**Dyfan Edwards** Surface Science Studies of Single Crystal Model Iron Molybdate Catalysts

**Hans-Hermann Pieper** The cross-linked (1x2) surface reconstruction of rutile  $\text{TiO}_2(110)$

**Jakub Prauzner-Bechcicki** STM and AFM imaging of TPA molecules on the  $\text{TiO}_2(110)$  surface

**Jingyu Sun** Metal island growth on  $\text{SrTiO}_3$

**Chen Wu** Thin film growth of  $\text{BaTiO}_3$