TECHNISCHE UNIVERSITÄT WIEN

Program

35th Workshop

on

Location	JUFA Hotel Schladming Coburgstrasse 253, A – 8970 Schladming Tel: +43(0) 5/7083-330 Fax: +43(0) 5/7083-331
Date	Arrival: Sunday, February 09th, 2020 (Dinner 18:00, Get Together 19:30) Departure: Friday, February 14th, 2020

Organizers: **Univ.Prof. Dr. Günther Rupprechter**

Ao.Univ.Prof.Dr. Peter Blaha

Institute of Materials Chemistry
TU Wien, Getreidemarkt 9/E165, A-1060 Vienna
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Program Committee

B. Batlogg	P. Blaha	U. Diebold
F. Gießibl	P. Knoll	J.Kunze-Liebhäuser
S. Paschen	A. Pimenov	G. Rupprechter
K. Schwarz	P. Weinberger	

https://www.imc.tuwien.ac.at/konferenzen/

Scientific Program

Monday, Feb. 10th, 2020 **Interface Science**

(Chair: Ulrike Diebold, TU Wien, Austria)

14:00	**Günther Rupprechter** (TU Wien, Austria) *Opening 35th Workshop*
14:10	**Introduction by Ulrike Diebold** (TU Wien, Austria)
14:30	**Peter Zeppenfeld** (JKU Linz, Austria) *Substrate-induced growth of organic thin films*
15:10	*Coffee Break*
15:40	**Martin Sterrer** (Univ. Graz, Austria) *Control of charge transfer through dielectric thin films*
16:20	*Coffee Break*
16:40	**Franz Gießibl** (Univ. Regensburg, Germany) *Cuddling atoms, subatomic resolution and physisorption-chemisorption transition seen by AFM*
17:10	**Break**

18:00	**Dinner**

Evening Session (Chair: Julia Kunze-Liebhäuser, Univ. Innsbruck, Austria)

19:30	**Introduction by Julia Kunze-Liebhäuser** (Univ. Innsbruck, Austria)
19:45	**Jörg Libuda** (Univ. Erlangen, Germany) *Reducible Oxides: From model catalysis to model electrocatalysis*
20:15	**Nicola Seriani** (ICTP Trieste, Italy) *Ab-initio simulations of an electrochemical interface*
20:45	**End**

For all talks: 5-10min discussion suggested !!

Tuesday, Feb. 11th, 2020 **Spin crossover**

(Chair: Peter Weinberger, TU Wien, Austria)

14:00	**Introduction by Peter Weinberger** (TU Wien, Austria)
14:20	**Birgit Weber** (Univ. Bayreuth, Germany) *Synergy between spin state change and luminescence properties of 3d metal complexes*
15:00	***Coffee Break***
15:30	**Grace Morgan** (University College Dublin, Ireland) *Electronic and structural order parameter in spin switchable complexes*
16:10	***Refreshments***
16:30	**Marco Seifried** (TU Wien, Austria) *Substituted Azoles as potential ligands for iron SCO compounds*
17:00	***Break***

17:00	**Dinner**

Evening Session (Chair: Peter Blaha, TU Wien, Austria)

19:30	**Introduction by Peter Blaha** (TU Wien, Austria)
19:45	**Bernhard Bayer-Skoff** (TU Wien, Austria) *Resolving 2D/non-2D heterostructures*
20:15	***Meeting of the Program Committee***

Wednesday, Feb. 12th, 2020 **"Higgs"**

(Chair: Peter Knoll, Univ. Graz, Austria und Rudi Hackl, Walther-Meissner-Institut, Garching, Germany)

14:00	**Introduction by Peter Knoll** (Univ. Graz, Austria**)**
14:20	**Dirk van der Marel** (Univ. Geneve, Switzerland) *How to make photons massive with the help of a superconductor*
15:00	**Coffee Break**
15:30	**Ilse Krätschmer** (ÖAW HEPHY, Austria) *The God-damn particle*
16:10	**Refreshments**
16:30	**Marie-Aude Measson** (CNRS Neel Institute, France) *Higgs mode observability in charge-density-wave superconductors*
17:10	**Break**

18:00	**Dinner**

Evening Session (Chair: Peter Blaha, TU Wien, Austria)

19:30	**POSTER SHORT PRESENTATIONS AND POSTER SESSION**

Thursday, Feb. 13th, 2020 **Topological matter**

(Chair: Andrei Pimenov, TU Wien, Austria)

14:00	**Introduction by Andrei Pimenov** (TU Wien, Austria)
14:20	**Ronny Thomale** (Univ. Würzburg, Germany)
	Room temperature quantum spin Hall effect
15:00	**Coffee Break**
15:30	**Sergey Tarasenko** (Ioffe Institut, Russia)
	Photogalvanic effects in 2D systems with non-trivial topology
16:10	**Refreshments**
16:30	**Jan Gospodaric** (TU Wien, Austria)
	A novel technique for obtaining band structures of 2D materials
17:00	**Evan Constable** (TU Wien, Austria)
	Magnetic monopoles in frustrated magnets
17:30	**Break**

18:00	**Dinner**

Evening Session (Chair: Günther Rupprechter, TU Wien, Austria)

20:00	**Bertram Batlogg** (ETH Zürich, Switzerland)
	Physics in the Smartphone continued
21:00	**Anna Pimenov** (TU Wien, Austria**)** *Kunst und Wissenschaft im Dialog* *techArt: Kunst im Labor*
21:30	**End**

Friday, Feb. 14th, 2020 **Nanomaterials**

(Chair: Günther Rupprechter, TU Wien, Austria)

14:00	**Introduction by Günther Rupprechter** (TU Wien, Austria)
14:20	**Erik Vesselli** (Università Trieste, Italy)
	Tetrapyrroles in action at surfaces: an in situ approach
15:00	**Coffee Break**
15:20	**Christophe Copéret** (ETH Zurich, Switzerland)
	CO_2 hydrogenation to methanol: the role of surface and interfacial sites in controlling catalysis
15:50	**Bert Chandler** (Trinity University, USA)
	Small molecule activation at the Au-support interface
16:20	**End**

For all talks: 5-10min discussion suggested !!

POSTER CONTRIBUTIONS

Frustrated spin order and stripe fluctuations in FeSe
A. Baum, H. N. Rziz, N. Lazarevic, Y. Wang, T. Böhm, R. H. Ahangharnejhad, P. Adelmann, T. Wolf, Z. V. Popovic, B. Moritz, T. P. Deveraux, R. Hackl

Far-Infrared dielectric response of antiferroelectric francisite $Cu_3Bi(SeO_3)_2O_2Cl$
L. Bergen, L. Weymann, E. Malysheva, A. Pimenov, E. Constable

Are amorphous materials photocatalytically active? A case study with mesoporous niobium oxide
L. Deilmann, T. Gupta, S. P. Nandan, D. Eder

Pressure dependence of low temperature carbonation of CaO under water saturation
G Gravogl, F Birkelbach, D Müller, C. Lengauer, A. Werner, P. Weinberger, R. Miletich

Water adsorption on the CuOx and NiOx attached to the Anatase TiO_2(101) surface by DFT Calculation
L. Kalantari, P. Blaha

Combined STM/STS and AFM investigation on the topological insulator $TlBiSe_2$
A. Liebig, F. L. Kolb, F. J. Giessibl

Comparison of iron(II) and cobalt(II) complexes with imidazole-based scorpionate ligands
F.M. Kapsamer, M. Seifried, G. Giester, J. Kunze-Liebhäuser, A. Auer, D. Müller, P. Weinberger

DFT Investigation of the effect of Ca doping on rare earth perovskites
T. Ruh, L. Lindenthal, H. Summerer, R. Rameshan, A. K. Opitz, C. Rameshan, P. Blaha

In situ investigation of porphyrin reactivity at surfaces
E. Vesselli, A. Verdini, S. Matus, F. Armillotta, J. Gallet, F. BournelIn

Field-induced linear magnetoelectric effect in a rare-earth langasite
L. Weymann, T. Kain, A. Shuvaev, L. Bergen, E. Constable, Anna Pimenov, A. Kuzmenko, V. Yu. Ivanov, N. Kostyuchenko, D. Szaller, A. A. Mukhin, M. Mostovoy, A. Pimenov

Towards multifunctionality of a 4f-3d SCO complex
W. Zeni, C. Knoll, M. Seifried, G. Giester, M. Reissner, D. Müller, P. Weinberger

Probing the electronic structure using resonant light scattering
R. Hackl, A. Baum, N. Lazarevic, Y. Li, C.-H. Chu, I.R. Fisher, R. Valenti, I.I. Mazin

Gold nanoclusters for oxidation reactions: Size, support and doping effects on catalytic activity
C. Garcia, N. Barrabes, G. Rupprechter

Active site structures in Titanium-Silicalite 1: An NMR point of view
C. P. Gordon, H. Engler, A. Berkessel, J.H. Teles, A. N. Parvulescu, C. Copéret

Catalytic Interfaces for photoelectrochemical and electrochemical reduction of Carbon Dioxide
P. J. Kulesza, I. A. Rutkowska,

Catalytic Processes of highly inert systems in acid medium: Detection of As(III) and As(V)
A. Rutkowska, P. J. Kulesza,

Terahertz time-domain spectroscopy at low temperatures
J. Wettstein, D. Szaller, E. Constable, A. Pimenov

Chiral Fe(II) spin crossover complexes based on the BINOL motif
M. Nastran, D. Müller, W. Zeni, M. Seifried, P. Weinberger

Quantum-optical phenomena in magnetoelectric crystals
D. Szaller, J. Wettstein, K. Amelin, T. Room, U. Nagel, A. Kuzmenko, A. Pimenov

Iron and the "Putto"
D. Wengerowsky, R. Lehmann, H.-J. Schmidt, M. Kumar, R.Sindelar, B.F.O. Costa, F. Renz

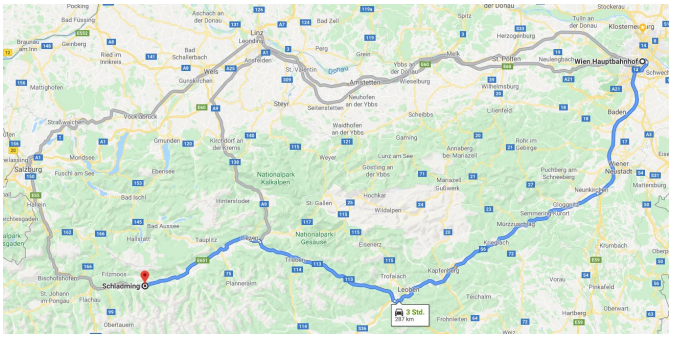
Mixed valance multinuclear complexe: Spin Transition
D. Natke, J. Pawlak, A. Preiss, H. Oshio, R. Sindelar, F. Renz

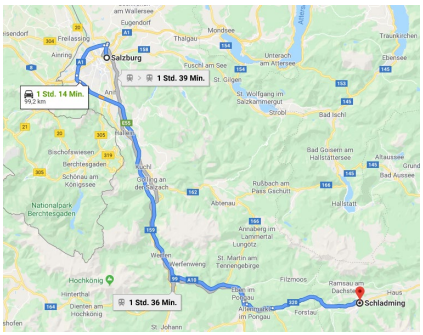
Constructing the phase diagram of HfO_2 using artificial intelligence and first principles calculations
S. Bichelmaier, J. Carrete, G.K.H. Madsen

General Information:
Breakfast: 07.00 – 10.30
Lunch: 12.30 – 13:15
Dinner: 18.00 – 20.00

Anreise
Mit Bus oder Bahn:
Von Salzburg Stadt – Schladming 1h36min
Von Wien HBF – Schladming 4h30min
Fußweg vom Bahnhof zum Jufa Hotel ca. 15 min

Mit dem Auto :





Aus Wien:
A23 Richtung bis
Süd Autobahn/E59, S6 und A9 bis B320 in Selzthal folgen
A9 Ausfahrt B320 nehmen 2 Std. 9 Min. (230 km)
B320 bis Roseggerstraße in Schladming

Aus Salzburg:
A1 nehmen bis
A10 bis Anschlußstelle Ennstal/B320/E651 nehmen
A10 Ausfahrt 63-Altenmarkt nehmen
B320 bis Roseggerstraße in Schladming folgen