

## nanoGe Fall Meeting 2018 (FallMeeting18)

### S10 Scanning Probe Microscopy for Energy Applications

Torremolinos, Spain, 2018 October 25th

Conference Chairs: Sascha Sadewasser and Rüdiger Berger

### Conference Program

#### October 25th - Day 4 (Thursday)

##### Plenary Session 5

Chair: Daniel Vanmaekelbergh

- 09:00 - 09:30  
5-K1 **Maksym Kovalenko** (*Institute of Inorganic Chemistry, Department of Chemistry and Applied Bioscience, ETH Zurich, 8093 Zurich, Switzerland*)  
Colloidal Nanocrystals of APbX<sub>3</sub> Perovskites [A=Cs<sup>+</sup>, CH(NH<sub>2</sub>)<sub>2</sub><sup>+</sup>, X=Cl<sup>-</sup>, Br<sup>-</sup>, I<sup>-</sup>]: Surface Chemistry, Self-Assembly and Potential Applications

##### SPMEn S10.1

Chair: Sascha Sadewasser

- 09:00 - 09:15  
S10.1-O1 **Nicoleta Nicoara** (*International Iberian Nanotechnology Laboratory, 4715-330 Braga, Portugal*), Roby Manaligod, Philip Jackson, Dimitrios Hariskos, Wolfram Witte, Sascha Sadewasser  
Impact of Alkali post Deposition Treatments on the Grain Boundary Properties in Cu(In,Ga)Se<sub>2</sub>
- 09:15 - 09:45  
S10.1-I1 **Stefan A.L. Weber** (*Max Planck Institute For Polymer Research*), Ilka Hermes, Anders Hagfeldt, Michael Graetzel, Wolfgang Tress, Rüdiger Berger  
Watching Ions Move: Scanning Probe Microscopy on Perovskite Solar Cells
- 09:45 - 10:00  
S10.1-O2 **Rüdiger Berger** (*MPI for Polymer Research, Ackermannweg 10, 55128 Mainz, Germany*), Alexander Klasen, Stefan Weber, Ilka Hermes, Wolfgang Tremel, Ewald Johannes, Amelie Axt, Phillip Baumli  
Local Current Imaging through TiO<sub>2</sub> Thin Films
- 10:00 - 10:30  
S10.1-I2 **Philippe LECLERE** (*University of Mons (UMONS), Laboratory for Chemistry of Novel Materials, Center for Innovation and Research in Materials and Polymers (CIRMAP), Mons (Belgium)*)  
Light on Organic and Hybrid Photovoltaic Devices : The Key Role of Scanning Probe Microscopy

#### 10:30 - 11:00 Coffee Break

##### SPMEn S10.2

Chair: Rüdiger Berger

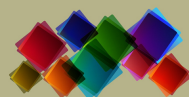
- 11:00 - 11:30  
S10.2-I1 **Benjamin GREVIN** (*UMR5819 SYMMES CEA-CNRS-UGA CEA-Grenoble INAC/SYMMES 17 rue des Martyrs 38054 GRENOBLE CEDEX 9 FRANCE*)  
Imaging the Photocurrent Dynamics in Organic, Hybrid and Two-Dimensional Photovoltaic Materials by Time-Resolved Kelvin Probe Force Microscopy
- 11:30 - 11:45  
S10.2-O1 **Jan-Frederik Heger** (*University of Applied Sciences Esslingen, Kanalstrasse 33, 73728 Esslingen, Germany*), Matthias Simolka, Arnulf Latz, Volker Schmidt, Renate Hiesgen  
AFM Based 3D-Modeling of a Fuel Cell Electrode
- 11:45 - 12:00  
S10.2-O2 **Johanna Eichhorn, Francesca Maria Toma** (*Chemical Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, California 94720, United States*)  
Nanoscale Imaging of Charge Carrier Transport in Water Splitting Photoanodes

12:00 - 12:30

#### 12:30 - 14:30 Lunch

##### SPMEn S10.3

Chair: Thilo Glatzel



14:30 - 15:00	<u>Christian Teichert</u> ( <i>Montanuniversitaet Leoben</i> )
S10.3-11	Advanced AFM Techniques to Study Photoconductivity of Inorganic and Organic Semiconductor Nanostructures
15:00 - 15:15	<u>Matthias Simolka</u> ( <i>University of Applied Sciences Esslingen, Kanalstrasse 33, 73728 Esslingen, Germany</i> ),
S10.3-01	Christopher Heim, K. Andreas Friedrich, Renate Hiesgen Local Analysis of Li-ion Concentration and Diffusion-Migration Coefficients in Lithium-Silicon Electrodes
15:15 - 15:45	Sara Freund, Antoine Hinaut, Edwin C. Constable, Ernst Meyer, Catherine Housecroft, <u>Thilo Glatzel</u> ( <i>Department</i>
S10.3-12	<i>of Physics, University of Basel, Switzerland</i> ) Dye Precursor Molecules on NiO(001) Studied by Non-Contact Atomic Force Microscopy
15:45 - 16:15	<u>Gunther Wittstock</u> ( <i>Carl von Ossietzky University of Oldenburg</i> )
S10.3-13	Scanning Electrochemical Microscopy of Energy Materials
16:15 - 16:30	<u>Elisa Palacios-Lidón</u> ( <i>Universidad de Murcia</i> ), Emin Istif, Ana Benito, Wolfgang K. Maser, Jaime Colchero
S10.3-02	Nanoscale Photogenerated Charge-Transfer Study of P3HT Nanoparticles /Graphene Oxide Complexes.
16:30 - 17:00	<u>Anders Mikkelsen</u> ( <i>Lund University, Department of Physics &amp; NanoLund, Lund, Sweden</i> )
S10.3-14	Atomic Scale Surface and Crystal Phase Control in Nanowires for Novel Electronics and Photonics.
17:30 - 19:00	<b>Poster session</b>