

# ECOSS 36

## EUROPEAN CONFERENCE ON SURFACE SCIENCE

**28.08.2023 – 01.09.2023**  
**LODZ, POLAND**

ABSTRACT BOOK (VERSION 25/08)



FACULTY OF PHYSICS  
AND APPLIED INFORMATICS  
University of Lodz



# EnviroESCA

ELECTRON SPECTROSCOPY FOR CHEMICAL ANALYSIS  
UNDER ENVIRONMENTAL CONDITIONS

## KEY FEATURES

- Fast Quality Control
- High Throughput Analysis
- Controllable Atmosphere
- Revolutionary Technology
- Ergonomic all-in-one Design
- Fully Software Controlled



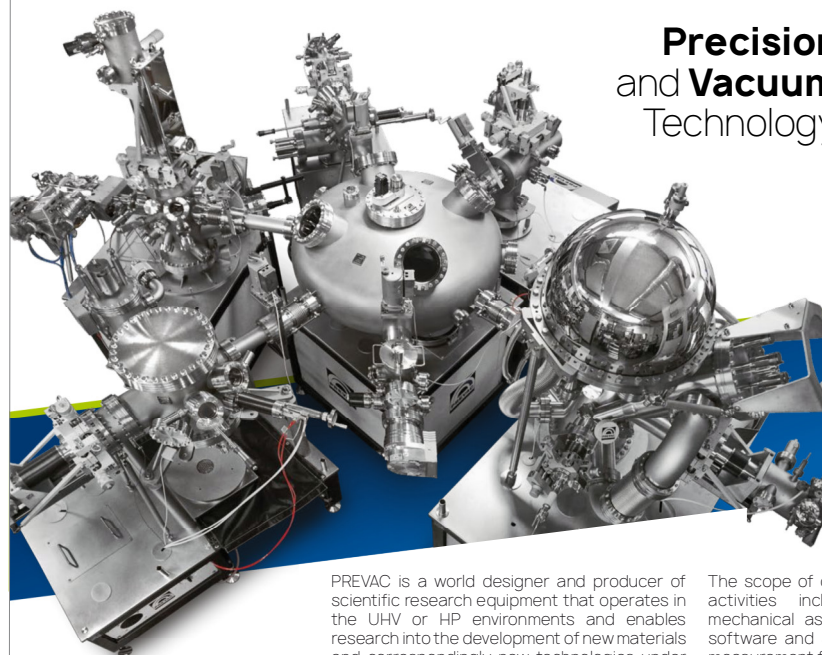
**Enviro™**

A member of SPECSGROUP

[www.specs-group.com](http://www.specs-group.com)

[info@specs.com](mailto:info@specs.com)

**Precision  
and Vacuum  
Technology**



PREVAC is a world designer and producer of scientific research equipment that operates in the UHV or HP environments and enables research into the development of new materials and correspondingly new technologies under very well-controlled conditions.

The scope of design, manufacture and sales activities includes electronics, precision mechanical assemblies and motion devices, software and advanced process control and measurement for science and industry.

[prevac.eu](http://prevac.eu)

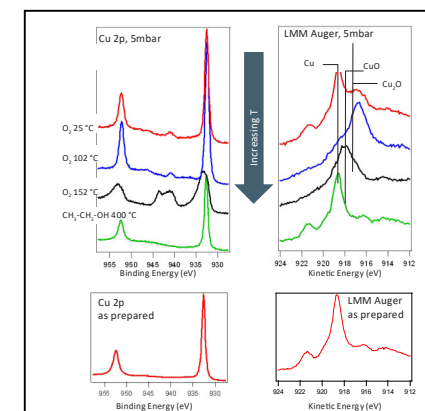
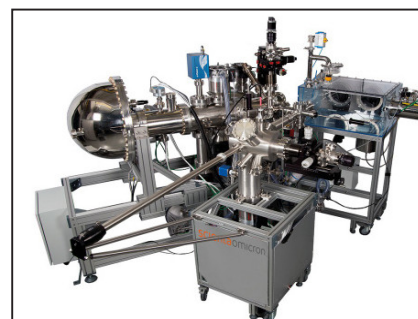
+48 32 459 2000 [prevac@prevac.eu](mailto:prevac@prevac.eu)

## HiPPLab

### Advanced APXPS measurements made simple

scientaomicron

- High-performance electron analyser with enhanced transmission thanks to swift mode
- Advanced snap-shot, imaging and angular mode
- Innovative modular design for ease of use
- Special and individual designs possible



Oxidation and reduction study of polycrystalline copper at 5 mbar and variable temperature. The experiment starts with the as-prepared state (bottom) which is characterized by the metallic signature of the Cu. Introducing 5 mbar of O<sub>2</sub> gas to the system, one observes the gradual oxidation of the Cu with increasing temperature up till 152 °C. Using ca. 5 mbar ethanol and heating to 400 °C the surface is reduced back to its original metallic state.

[www.scientaomicron.com](http://www.scientaomicron.com) [info@scientaomicron.com](mailto:info@scientaomicron.com)



# Session List

## Plenary Talks

<b>2DM</b>	2D Materials & Layered Materials
<b>AEM</b>	Advances in Experimental Methods
<b>ATM</b>	Advances in Theoretical Methods
<b>CAT</b>	Catalysis
<b>ECH</b>	Electrochemistry on Surfaces
<b>ENM</b>	Energy Materials
<b>FNS</b>	Functional Surface Nanostructures, Plasmonics, and Sensors
<b>ISI</b>	Ion Surface Interactions
<b>MAG</b>	Magnetism
<b>OPN</b>	Optical Properties at the Nanoscale
<b>MOL</b>	Organic Molecules & Molecular Architectures on Surfaces
<b>OXY</b>	Oxide Surfaces
<b>S&amp;A</b>	Surfaces & Their Applications
<b>WES</b>	Water & Environmental Surfaces
<b>ONR</b>	The U.S. Office of Naval Research
<b>MS01</b>	Surface Astrochemistry
<b>MS02</b>	Surface Reactions on 2D Materials and Ultrathin Oxide Films
<b>MS03</b>	Response of the Surface on the Ions` Bombardment: Experiments, Theoretical Models and Simulations
<b>MS04</b>	MXenes and Related Materials
<b>MS05</b>	Optical, Vibrational, and Magnetic Properties of van der Waals Materials
<b>MS06</b>	Xenes: Two-Dimensional Artificial Materials
<b>MS07</b>	Orbital Angular Momentum-Based Phenomena in Quantum Materials and Their Surfaces
<b>MS08</b>	State-of-the-Art ARPES Measurements at Synchrotron
<b>MS09</b>	Single-Molecule Devices: Beyond Electronic Transport
<b>MS10</b>	Exploring Structure-Properties Correlation in Nanostructured Materials
<b>MS11</b>	Photoemission Tomography as a Tool for Studying Molecular Interfaces, Applications and Future Perspectives
<b>MS13</b>	Nanostructured Materials for Enhancing Light-Matter Interactions
<b>MS14</b>	Atomic Scale Mineral-Water Interfaces
<b>MS15</b>	At the Junction between Surface Chemistry and Physic: the Complementary Application of Surface Zeta Potential and Kelvin Probe Force Microscopy
<b>PCAM</b>	Summer School

## Posters Monday

## Posters Wednesday

# Plenary Talks

7 talks

- Mon-09:00-PL** Monday, August 28 09:00 / 60 min Plenary speaker  
**Klaus von Klitzing** *How Basic Research on Surfaces led to a Nobel Prize and a Revolution in Metrology*  
Max Planck Institute for Solid State Research
- Tue-09:00-PL** Tuesday, August 29 09:00 / 60 min Plenary speaker  
**Christian A. Nijhuis** *Intelligent Molecular Switches that Mimic Synapses*  
University of Twente
- Wed-09:00-PL** Wednesday, August 30 09:00 / 60 min Plenary speaker  
**Beatriz Roldan Cuenya** *Why is Operando Crucial for the Future of Surface Science?*  
Department of Interface Science, Fritz-Haber-Institute of the Max Planck Society
- Thu-09:00-PL** Thursday, August 31 09:00 / 60 min Plenary speaker  
**Cristiana Di Valentin** *Architecturing Graphene Interfaces and Functionalized Nanoparticles for Nanotechnology and Bionanoscience*  
Università di Milano Bicocca
- Fri-09:00-PL** Friday, September 1 09:00 / 60 min Plenary speaker  
**Yury Gogotsi** *2D MXenes – Control of Properties through Surface Chemistry and Atomistic Design*  
Drexel University
- Fri-10:30-PL** Friday, September 1 10:30 / 60 min Plenary speaker  
**Michelle Simmons** *Engineering qubits in silicon with atomic precision*  
Silicon Quantum Computing, Sydney, Australia
- Fri-11:30-PL** Friday, September 1 11:30 / 60 min Plenary speaker  
**Janusz Sadowski** *Transition metal dichalcogenides and topological semimetals grown by molecular beam epitaxy – challenges and opportunities*  
Institute of Physics, Polish Academy of Sciences

# 2DM

## 2D Materials & Layered Materials

57 talks

1. Mon-10:30-I-2DM Monday, August 28 10:30 / 40 min Invited speaker  
**Christoph Tegenkamp** *Towards epitaxial graphene-based quantum materials*  
TU Chemnitz
2. Mon-11:10-O-2DM Monday, August 28 11:10 / 20 min Regular talk  
**Ryszard Zdyb** *New structural phase of single atom thick layer of antimony*  
Institute of Physics, Maria Curie-Skłodowska University
3. Mon-11:30-O-2DM Monday, August 28 11:30 / 20 min Regular talk  
**Meryem Bouaziz** *Emergent flat band in quasi-one-dimensional Indium Telluride*  
CZN
4. Mon-11:50-O-2DM Monday, August 28 11:50 / 20 min Regular talk  
**Victor Aristov** *Nanostructured Graphene: Controllable in-situ Growth, Structure and Properties*  
Deutsches Elektronen-Synchrotron DESY, 22607 Hamburg, Germany
5. Mon-14:00-O-2DM Monday, August 28 14:00 / 20 min Regular talk  
**Karolina Idczak** *Effect of intercalated metals (Gd, Yb, Fe, Pt) on the physicochemical properties of graphene-SiC*  
Institute of Experimental Physics, Faculty of Physics and Astronomy, University of Wrocław
6. Mon-14:20-O-2DM Monday, August 28 14:20 / 20 min Regular talk  
**Geoffroy Prevot** *From surface alloys to germanene: Ge/Ag(111) growth*  
Sorbonne Université, Centre National de la Recherche Scientifique, Institut des NanoSciences de Paris, INSP, F-75005 Paris, France
7. Mon-14:40-O-2DM Monday, August 28 14:40 / 20 min Regular talk  
**Robert Szoszkiewicz** *Interactions of oxygen with MoS2 crystals*  
University of Warsaw
8. Mon-15:00-O-2DM Monday, August 28 15:00 / 20 min Regular talk  
**Jan Raczyński** *Properties of the metal/PtSe2 thin layer interfaces*  
Poznan University of Technology
9. Mon-15:20-O-2DM Monday, August 28 15:20 / 20 min Regular talk  
**Klaudia Toczek** *MBE growth and characterization of metallic and oxidized layers of 2D Bismuth*  
Department of Solid State Physics, Faculty of Physics and Applied Informatics, University of Lodz

# 2DM

## 2D Materials & Layered Materials

57 talks

10. Mon-16:30-I-2DM Monday, August 28 16:30 / 40 min Invited speaker  
**Phil King** *Giant valley-Zeeman coupling in the NbS2 surface layer of V1/3NbS2*  
University of St Andrews
11. Mon-17:10-O-2DM Monday, August 28 17:10 / 20 min Regular talk  
**Pascal Gehring** *Seebeck measurements on the 2D ferromagnet CrSBr*  
UCLouvain
12. Mon-17:30-O-2DM Monday, August 28 17:30 / 20 min Regular talk  
**Mariusz Gołębiowski** *Epitaxial growth of  $\alpha$ -antimonene on ferromagnetic Co film – LEEM studies*  
Institute of Physics, Maria Curie-Skłodowska University, pl. Marii Curie-Skłodowskiej 1, 20-031 Lublin
13. Mon-17:50-O-2DM Monday, August 28 17:50 / 20 min Regular talk  
**Teresa Kulka** *Magnetic skyrmions of Ti2C MXenes doped with Cr, Mn, and Fe*  
Faculty of Physics, University of Warsaw, Ludwika Pasteura 5, 02-093 Warsaw, Poland
14. Mon-18:10-O-2DM Monday, August 28 18:10 / 20 min Regular talk  
**Miklos Menyhard** *XPS Depth Profiling of Tungsten-Carbide Nano Coating Layers*  
Institute for Technical Physics and Material Science, Centre for Energy Research
15. Tue-10:30-O-2DM Tuesday, August 29 10:30 / 20 min Regular talk  
**Christian Teichert** *Fabrication and functionalization of nanoribbon networks from arbitrary two-dimensional materials*  
Montanuniversität Leoben, Austria
16. Tue-10:50-O-2DM Tuesday, August 29 10:50 / 20 min Regular talk  
**Franciszek Krok** *Atomic-scale characterization of contact interfaces between thermally self-assembled Au islands and MoS2 substrate surfaces*  
M. Smoluchowski Institute of Physics, Jagiellonian University, 30-348 Krakow, Poland
17. Tue-11:10-O-2DM Tuesday, August 29 11:10 / 20 min Regular talk  
**Mikołaj Lewandowski** *Revisiting the structure of monolayer iron nitride islands on Cu(001)*  
NanoBioMedical Centre, Adam Mickiewicz University in Poznań, Poland
18. Tue-11:30-O-2DM Tuesday, August 29 11:30 / 20 min Regular talk  
**Saeed Sovizi** *MoS2 oxidation: from single (MoO3)x clusters to MoO3/MoOx layers*  
Faculty of Chemistry, Biological and Chemical Research Centre, University of Warsaw, Żwirki i Wigury 101, 02-089 Warsaw, Poland

# 2DM

## 2D Materials & Layered Materials

57 talks

19. Tue-11:50-O-2DM Tuesday, August 29 11:50 / 20 min Regular talk  
**Valentina De Renzi** *Dielectric properties and charge density distribution in Cs-doped Black-Phosphorus*  
Dipartimento di Scienze Fisiche, Informatiche e Matematiche, Università di Modena e Reggio Emilia
20. Tue-12:10-O-2DM Tuesday, August 29 12:10 / 20 min Regular talk  
**Antonio Caporale** *Electronic and morphological properties of the graphene/Ge(110) interface as a function of temperature*  
University of Rome "Tor Vergata"
21. Tue-14:00-I-2DM Tuesday, August 29 14:00 / 40 min Invited speaker  
**Johannes Binder** *Epitaxial Hexagonal Boron Nitride – Growth, Properties and Applications*  
University of Warsaw
22. Tue-14:40-O-2DM Tuesday, August 29 14:40 / 20 min Regular talk  
**Piotr Tatarczak** *hBN bubbles – a way of deterministic activation of single photon emission from defects in hBN?*  
University of Warsaw, Faculty of Physics
23. Tue-15:00-O-2DM Tuesday, August 29 15:00 / 20 min Regular talk  
**Wiktoria Reddig** *Exploring possible modes of damage caused by neutron radiation in thin-film and two-dimensional Hall-effect systems*  
Poznan University of Technology
24. Tue-15:20-O-2DM Tuesday, August 29 15:20 / 20 min Regular talk  
**László Óvári** *Mechanistic insights into thermal processes of metal deposits on h-BN/Rh(111): A comparison of Au and Rh*  
ELKH-SZTE Reaction Kinetics and Surface Chemistry Research Group, Szeged, Hungary
25. Tue-15:40-O-2DM Tuesday, August 29 15:40 / 20 min Regular talk  
**Arka Karmakar** *Interlayer Energy Transfer in Type-II 2D Heterostructure*  
University of Warsaw
26. Wed-10:30-I-2DM Wednesday, August 30 10:30 / 40 min Invited speaker  
**Jose Lado** *Artificial van der Waals multiferroics with twisted two-dimensional materials*  
Aalto University
27. Wed-11:10-O-2DM Wednesday, August 30 11:10 / 20 min Regular talk  
**Masahiro Haze** *Microscopic Study of Quantum Phase Transition on Atomic-Layer Superconductors*  
The Institute for Solid State Physics, The University of Tokyo, Japan

# 2DM

## 2D Materials & Layered Materials

57 talks

28. Wed-11:30-O-2DM Wednesday, August 30 11:30 / 20 min Regular talk  
**Peter Machata** *Wettability of MXene: A Comprehensive Study*  
Polymer Institute SAS, Dubravska cesta 9, 845 41 Bratislava
29. Wed-11:50-O-2DM Wednesday, August 30 11:50 / 20 min Regular talk  
**Elwira Wachowicz** *Interfacing 2D materials with a ferrite: Gr/Fe3O4(111) and MoS2/Fe3O4(111)*  
Institute of Experimental Physics, University of Wrocław
30. Wed-12:10-O-2DM Wednesday, August 30 12:10 / 20 min Regular talk  
**Andrea Tonelli** *Evidence of band folding in the charge density wave of 4Hb-TaSe2*  
University of Modena and Reggio Emilia
31. Wed-14:00-I-2DM Wednesday, August 30 14:00 / 40 min Invited speaker  
**Oded Hod** *Layered Ferroelectricity: from Geometric Measures to First-Principles Calculations*  
Tel Aviv University
32. Wed-14:40-O-2DM Wednesday, August 30 14:40 / 20 min Regular talk  
**Bartosz Szczefanowicz** *Kinetic nanoscale friction on van der Waals heterostructures*  
INM - Leibniz Institute for New Materials
33. Wed-15:00-O-2DM Wednesday, August 30 15:00 / 20 min Regular talk  
**Antoine Hinaut** *Rewritable superlubricity on Nitrogen-doped graphene moiré superlattices*  
University of Basel
34. Wed-15:20-O-2DM Wednesday, August 30 15:20 / 20 min Regular talk  
**Lucia G Arellano-Sartorius** *Structural stability and electronic states of AA and AB stacked II-V compounds*  
Department of Engineering Science, The University of Electro-Communications (UEC Tokyo)
35. Wed-15:40-O-2DM Wednesday, August 30 15:40 / 20 min Regular talk  
**Subrahmanyam Bandaru** *Band gap engineering of two-dimensional ScB MBene*  
University of Warsaw
36. Wed-16:30-I-2DM Wednesday, August 30 16:30 / 40 min Invited speaker  
**Felix Baumberger** *Imaging moiré mini bands in 2D materials by nano-ARPES*  
University of Geneva & Swiss Light Source, PSI
37. Wed-17:10-O-2DM Wednesday, August 30 17:10 / 20 min Regular talk  
**Jakub Iwański** *Manipulation of indirect/direct bandgap character of hBN by alloying with Al*  
Faculty of Physics, University of Warsaw, Pasteura 5, 02-093 Warsaw, Poland



# 2DM

## 2D Materials & Layered Materials

57 talks

38. Wed-17:30-O-2DM Wednesday, August 30 17:30 / 20 min Regular talk  
**Sergi Campos Jara** *Bandgap Modulation of Boron Nitride-doped Graphene*  
Leiden University
39. Wed-17:50-O-2DM Wednesday, August 30 17:50 / 20 min Regular talk  
**Maksym Dub** *Low-frequency noise and sub-THz detection in Graphene/AlGaIn/GaN heterostructures*  
Center for Terahertz Research and Applications (CENTERA), Institute of High Pressure Physics PAS, ul. Sokolowska 29/37, 01-142, Warsaw, Poland
40. Wed-18:10-O-2DM Wednesday, August 30 18:10 / 20 min Regular talk  
**Jacek Kolodziej** *Localization of electronic states in a semiconductor revealed by their response to the band bending potential*  
Faculty of Physics, Astronomy and Applied Computer Science, Jagiellonian University, Łojasiewicza 11, 30-348 Kraków, Poland and National Synchrotron Radiation Centre SOLARIS, Jagiellonian University, Czerwone Maki 98, 30-392 Kraków, Poland
41. Thu-10:30-O-2DM Thursday, August 31 10:30 / 20 min Regular talk  
**Andrii Naumov** *In-plane band bending effect around Au islands grown on a BiTe<sub>3</sub> topological insulator*  
AGH University of Krakow, Academic Centre for Materials and Nanotechnology, al. Mickiewicza 30, 30-059 Krakow, Poland
42. Thu-10:50-O-2DM Thursday, August 31 10:50 / 20 min Regular talk  
**Zhaozong Sun** *Atomic structure of lead-free Cs<sub>3</sub>Bi<sub>2</sub>Br<sub>9</sub>(001) perovskite surface*  
Aarhus University
43. Thu-11:10-O-2DM Thursday, August 31 11:10 / 20 min Regular talk  
**Thais Chagas** *Nucleation Stage for the Oriented Growth of Tantalum Sulfide Monolayers on Au(111)*  
Department Physik, Universität Siegen, Walter-Flex-Str. 3, 57072, Siegen, Germany
44. Thu-11:30-O-2DM Thursday, August 31 11:30 / 20 min Regular talk  
**Gloria Anemone** *Electron-phonon coupling and thermal expansion in 2D materials*  
CUNEF Universidad
45. Thu-11:50-O-2DM Thursday, August 31 11:50 / 20 min Regular talk  
**Shunsuke Tanaka** *The interaction between hydrogen and MoS<sub>2</sub> basal planes studied by near-ambient pressure XPS and DFT calculations*  
The Institute for Solid State Physics
46. Thu-12:10-O-2DM Thursday, August 31 12:10 / 20 min Regular talk  
**Sylvester Sahayaraj Masilamani Leo** *Semiconductor and optical properties of Ge-doped ZnO thin films grown by ALD method*  
Centrum Badań i Rozwoju Technologii dla Przemysłu S.A., L. Waryńskiego 3A, 00-645 Warszawa, Poland

# 2DM

## 2D Materials & Layered Materials

57 talks

47. Thu-14:00-O-2DM Thursday, August 31 14:00 / 20 min Regular talk  
**Maciej Molas** *Hot luminescence or Raman scattering in monolayers of MoSi<sub>2</sub>N<sub>4</sub>*  
University of Warsaw
48. Thu-14:20-O-2DM Thursday, August 31 14:20 / 20 min Regular talk  
**Alessandro Sala** *Quantum Confinement in Aligned Zigzag "Pseudo-Ribbons" Embedded in Graphene on Ni(100)*  
CNR-IONM
49. Thu-14:40-O-2DM Thursday, August 31 14:40 / 20 min Regular talk  
**Adela Nicolaev** *Intercalation of carbon monoxide in sub-monolayer graphene on Pt(001)*  
National Institute of Materials Physics, Atomizator 405A, 077125 Măgurele, Ilfov, Romania
50. Thu-15:00-O-2DM Thursday, August 31 15:00 / 20 min Regular talk  
**Yasuo Cho** *Carrier distribution in mechanically exfoliated WSe<sub>2</sub>/SiO<sub>2</sub> and suspended WSe<sub>2</sub> measured by scanning nonlinear dielectric microscopy*  
Tohoku university
51. Thu-15:20-O-2DM Thursday, August 31 15:20 / 20 min Regular talk  
**Grzegorz Romaniak** *Composite graphene membranes for water purification*  
Faculty of Mechanical Engineering, Institute of Materials Science and Engineering, Lodz University of Technology 1/15 Stefanowskiego St., 90-924 Lodz, Poland/Amii Sp. z o.o., 22 Techniczna St., 92-518 Lodz, Poland
52. Thu-15:40-O-2DM Thursday, August 31 15:40 / 20 min Regular talk  
**Wojciech Ryś** *Interactions in a van der Waals heterostructure created from graphene and tungsten (IV) telluride*  
University of Lodz
53. Thu-16:30-I-2DM Thursday, August 31 16:30 / 40 min Invited speaker  
**Mariusz Krawiec** *Dirac Fermions in Si-Au Heterostructures*  
Maria Curie-Skłodowska University
54. Thu-17:10-O-2DM Thursday, August 31 17:10 / 20 min Regular talk  
**Richard Gubo** *Similarities and trends in adsorbate induced reconstruction - structure and stability of FCC iron and cobalt surface carbides*  
SynCat@Beijing, Synfuels China Technology Co. Ltd., Leyuan South Street II, No. 1, Huairou District, 101407 Beijing, China
55. Thu-17:30-O-2DM Thursday, August 31 17:30 / 20 min Regular talk  
**Xue-sen Wang** *Morphology Evolution of Flat Blue Phosphorene on Cu(111) with Increasing Phosphorus Coverage*  
Department of Physics, National University of Singapore, 2 Science Drive 3, Singapore 117542

# 2DM

## 2D Materials & Layered Materials

57 talks

56. Thu-17:50-O-2DM Thursday, August 31 17:50 / 20 min Regular talk  
**Alaa Mohammed Idris Bakhit**  
Materials Physics Center (MPC)  
*Formation of Europium transition metal surface compounds and protection of Eu below hexagonal boron nitride*
57. Thu-18:10-O-2DM Thursday, August 31 18:10 / 20 min Regular talk  
**Yuji Hamamoto**  
Graduate School of Engineering, Osaka University  
*Machine-Learned Structure Search for Silicene on Ag(111)*

# AEM

## Advances in Experimental Methods

8 talks

1. Mon-14:00-I-AEM Monday, August 28 14:00 / 40 min Invited speaker  
**Antonija Grubisic-Cabo**  
University of Groningen, Zernike Institute for Advanced Materials  
*Kinetic In-situ Synthesis (KISS) technique of large-area 2D materials exfoliation*
2. Mon-14:40-O-AEM Monday, August 28 14:40 / 20 min Regular talk  
**Mattia Cattelan**  
Department of Chemical Sciences, University of Padova, Italy  
*Secondary Electron ARPES for Empty-State Band Mapping.*
3. Mon-15:00-O-AEM Monday, August 28 15:00 / 20 min Regular talk  
**Shin-ming Lu**  
Institute of Physics, Academia Sinica, Nankang, Taipei 11529, Taiwan  
*Impact of band structure on wave function dissipation in field emission resonance*
4. Mon-15:20-O-AEM Monday, August 28 15:20 / 20 min Regular talk  
**Kyuwook Ihm**  
Pohang Accelerator Laboratory  
*Hidden information educed from electron spectroscopy: carrier-resolution ultra-low mobility of nanochannels*
5. Mon-16:30-O-AEM Monday, August 28 16:30 / 20 min Regular talk  
**Jernej Ekar**  
Jožef Stefan Institute, Jamova cesta 39, SI-1000 Ljubljana, Slovenia; Jožef Stefan International Postgraduate School, Jamova cesta 39, SI-1000 Ljubljana, Slovenia  
*ToF-SIMS analyses in an H2 atmosphere: Improvements in depth profiling and reduction of matrix effect*
6. Mon-16:50-O-AEM Monday, August 28 16:50 / 20 min Regular talk  
**Hanna Sjö**  
Lund University  
*Tomographic Surface X-ray Diffraction*
7. Mon-17:10-O-AEM Monday, August 28 17:10 / 20 min Regular talk  
**Barbara Wolanin**  
National Synchrotron Radiation Centre SOLARIS, Jagiellonian University  
*Research capabilities of the DEMETER experimental line at the NSRC SOLARIS facility*
8. Mon-17:30-O-AEM Monday, August 28 17:30 / 20 min Regular talk  
**Rafał Dunał**  
Faculty of Physics and Applied Informatics, University of Łódź, 90-236 Łódź, Pomorska, 149/153, Poland  
*Nanoscale MoS2/Au interface modification with the use of atomic force microscopy for resistive switching applications*

# ATM

## Advances in Theoretical Methods

4 talks

1. Thu-16:30-O-ATM Thursday, August 31 16:30 / 20 min Regular talk  
**Marta Chabowska** *Modeling and characterization of surface patterns formed on the surface of a growing crystal*  
Institute of Physics, Polish Academy of Sciences, Aleja Lotnikow 32/46, PL-02668 Warsaw, Poland
2. Thu-16:50-O-ATM Thursday, August 31 16:50 / 20 min Regular talk  
**Iulia Emilia Brumboiu** *Molecular Properties and Theoretical Spectroscopy Simulations in HPC Cluster Environments with VeloxChem*  
Nicolaus Copernicus University in Toruń
3. Thu-17:10-O-ATM Thursday, August 31 17:10 / 20 min Regular talk  
**Rengel Cane Sia** *Sneak Peek to a Tailor-made Molecular Logic Nitric Oxide Sensor towards Intracellular Diagnostics: A Theoretical Perspective*  
Gdańsk University of Technology
4. Thu-17:30-O-ATM Thursday, August 31 17:30 / 20 min Regular talk  
**Przemysław Przybysz** *DFT AND SIMULATION OF THE ARPES EXPERIMENT - AS A WAY TO BETTER UNDERSTAND THE EXPERIMENT*  
Faculty of Physics and Applied Informatics, University of Łódź, Pomorska 149/153, 90-236 Łódź, Poland, Zernike Institute for Advanced Materials, University of Groningen, Nijenborgh 4, 9747 AG Groningen, The Netherlands

# CAT

## Catalysis

21 talks

1. Mon-10:30-O-CAT Monday, August 28 10:30 / 20 min Regular talk  
**Georg Held** *Operando XPS Studies of size-selected alumina-supported Pd and Pd-Pt nanoparticles*  
Diamond Light Source
2. Mon-10:50-O-CAT Monday, August 28 10:50 / 20 min Regular talk  
**Anna Makarova** *Catalytic oxidation of CO by step and kink sites of curved Au crystal*  
Free University of Berlin
3. Mon-11:10-O-CAT Monday, August 28 11:10 / 20 min Regular talk  
**Carsten Schröder** *Understanding Ligand-Directed Heterogeneous Catalysis: When the Dynamically Changing Nature of the Ligand Layer Controls the Hydrogenation Selectivity*  
Physikalische Chemie, CAU Kiel
4. Mon-11:30-O-CAT Monday, August 28 11:30 / 20 min Regular talk  
**Amin Mohammadpour** *TPD and IRRAS Investigation of CO Adsorption on Cu(211) and Pt/Cu(211) Surfaces*  
Koc University
5. Mon-11:50-O-CAT Monday, August 28 11:50 / 20 min Regular talk  
**Roland Bliem** *Photoemission During Plasma Exposure (Plasma XPS) on the Example of Ru Model Catalyst Surfaces*  
Advanced Research Center for Nanolithography
6. Mon-12:10-O-CAT Monday, August 28 12:10 / 20 min Regular talk  
**Florian Kraushofer** *Particle encapsulation on rutile TiO<sub>2</sub>(110) under near-ambient pressures: Substrate and environment effects*  
Technical University of Munich
7. Mon-14:00-I-CAT Monday, August 28 14:00 / 40 min Invited speaker  
**Karoliina Honkala** *Atomistic understanding catalytic reactions from first principles calculations*  
University of Jyväskylä
8. Mon-14:40-O-CAT Monday, August 28 14:40 / 20 min Regular talk  
**Leonhard Winter** *Tailoring the Selectivity of 1,3-Butadiene versus 1-Butene Adsorption on Pt(111) by Ultrathin Ionic Liquid Films*  
Lehrstuhl für Physikalische Chemie II, Friedrich-Alexander-Universität Erlangen-Nürnberg
9. Mon-15:00-O-CAT Monday, August 28 15:00 / 20 min Regular talk  
**Teng Ma** *Bi-functional element Fe for CO RT oxidation in Pt-Fe catalyst*  
Shenyang Agricultural University



# CAT

## Catalysis

21 talks

10. Mon-15:20-O-CAT      Monday, August 28      15:20 / 20 min      Regular talk  
**Karel Vařeka**  
CEITEC BUT  
*Exploring CO oxidation reaction on platinum by in-situ microscopy*
  
11. Mon-15:40-O-CAT      Monday, August 28      15:40 / 20 min      Regular talk  
**Imre Szent**  
ELKH-SZTE Reaction Kinetics and Surface Chemistry Research Group, Rerrich Béla sq. 1, H-6720 Szeged, Hungary  
*Catalytic behavior of Pt nanoparticles on hexagonal boron nitride fibers as a truly inert support in the CO<sub>2</sub> hydrogenation reaction*
  
12. Tue-10:30-I-CAT      Tuesday, August 29      10:30 / 40 min      Invited speaker  
**Rosa Arrigo**  
University of Salford  
*Carbon dioxide methanation in operando: from thermal catalysis to electrocatalysis*
  
13. Tue-11:10-O-CAT      Tuesday, August 29      11:10 / 20 min      Regular talk  
**Fred Tinkamanyire**  
The University of Manchester  
*Effect of Manganese promoter on Cobalt-based catalyst structure and reduction behaviour for Fischer-Tropsch Synthesis*
  
14. Tue-11:30-O-CAT      Tuesday, August 29      11:30 / 20 min      Regular talk  
**Hadi Jahangiri**  
Koc University Surface Science and Technology Center (KUYTAM), Sariyer, 34450 Istanbul, Turkey  
*Development of CoCuFeNiMnMox (x= 0.5, 1, and 1.5) High-Entropy Alloy Electrocatalysts for Water-Splitting Applications via Mechanical Alloying and Spark Plasma Sintering*
  
15. Tue-11:50-O-CAT      Tuesday, August 29      11:50 / 20 min      Regular talk  
**M. Natalia D. S. Cordeiro**  
LAQV@REQUIMTE, Department of Chemistry and Biochemistry, Faculty of Sciences, University of Porto  
*Green Hydrogen Production via Steam Reforming of Light Alcohols on Ni-Cu Based Catalysts*
  
16. Tue-12:10-O-CAT      Tuesday, August 29      12:10 / 20 min      Regular talk  
**Justine Dorival**  
CEA (LITEN)/ ENSL (Laboratoire de chimie)  
*Mixed Non Noble/Noble Catalytic Interfaces for Ammonia Decomposition at Lower Temperature*
  
17. Tue-14:00-I-CAT      Tuesday, August 29      14:00 / 40 min      Invited speaker  
**Yoshitada Morikawa**  
Osaka University  
*Machine Learning Molecular Dynamics Simulation of CO-driven Formation of Cu Clusters on Cu(111) Surface*
  
18. Tue-14:40-O-CAT      Tuesday, August 29      14:40 / 20 min      Regular talk  
**Jan Knudsen**  
Division of Synchrotron Radiation Research, The MAX IV Laboratory, and Nano Lund, Lund University  
*Probing minority sites and their activity using chemical perturbations and Fast Fourier Transformed Ambient Pressure X-ray Photoelectron Spectroscopy*

# CAT

## Catalysis

21 talks

19. Tue-15:00-O-CAT      Tuesday, August 29      15:00 / 20 min      Regular talk  
**Francesco Presel**  
University of Graz  
*An STM investigation on the CO<sub>2</sub> activation and conversion on Au/MgO(001) ultrathin film*
  
20. Tue-15:20-O-CAT      Tuesday, August 29      15:20 / 20 min      Regular talk  
**Aji Alexander**  
Department of Surface and Plasma Science, Charles University, Prague, Czech Republic  
*Perovskites as supports for single-atom catalysis*
  
21. Tue-15:40-O-CAT      Tuesday, August 29      15:40 / 20 min      Regular talk  
**Jing Guo**  
College of Chemistry, Beijing Normal University  
*Probing the surface chemistry of CO<sub>2</sub> by qPlus-AFM*

# ECH

## Electrochemistry on Surfaces

15 talks

1. Thu-10:30-I-ECH Thursday, August 31 10:30 / 40 min Invited speaker  
**Julia Kunze-Liebhäuser** *The nature of the electrified solid/liquid interface during CO(2) and water electro-activation*  
Institute of Physical Chemistry, University of Innsbruck, Innrain 52c, Innsbruck, Austria
2. Thu-11:10-O-ECH Thursday, August 31 11:10 / 20 min Regular talk  
**Olaf Brummel** *Controlling Selectivity in Electrocatalysis by Ionic Liquids: Oxidation of 2,3-Butanediol on Pt(hkl) Electrodes Modified by [C2C1Im][OTf]*  
Interface Research and Catalysis, Friedrich-Alexander-Universität (FAU) Erlangen-Nürnberg, Germany
3. Thu-11:30-O-ECH Thursday, August 31 11:30 / 20 min Regular talk  
**Ivan Khalakhan** *Composition-Activity-Stability Relationship in Bimetallic Pt-Au Oxygen Reduction Reaction Catalyst*  
Charles University
4. Thu-11:50-O-ECH Thursday, August 31 11:50 / 20 min Regular talk  
**Anders Vestergaard** *Investigating the stability of covalent metal-porphyrin network under oxygen evolution/reduction reaction*  
Aarhus University, iNano
5. Thu-14:00-I-ECH Thursday, August 31 14:00 / 40 min Invited speaker  
**Sara Barja** *Atomistic Studies of the Electrode-Electrolyte Interface*  
University of the Basque Country UPV/EHU
6. Thu-14:40-O-ECH Thursday, August 31 14:40 / 20 min Regular talk  
**Edvin Lundgren** *The Effect of the Oxygen Evolution Reaction on Corrosion: Ni-Cr-Mo Alloy*  
Lund University, Division of Synchrotron Radiation Research, Lund, Sweden
7. Thu-15:00-O-ECH Thursday, August 31 15:00 / 20 min Regular talk  
**Merve TANER CAMCI** *Capturing the Local Potential Variations of Ionic Liquid Devices by XPS under DC and/or AC Modulations*  
Turkish Energy Nuclear and Mineral Research Agency, Rare Earth Elements Research Institute, 06980 Kahramankazan, Ankara, Turkey
8. Thu-15:20-O-ECH Thursday, August 31 15:20 / 20 min Regular talk  
**Oleksandr Bondarchuk** *Electrowetting of [EMIm][FSI] ionic liquid on HOPG: In-situ Electrochemical XPS probing*  
International Iberian nanotechnology Laboratory (INL)
9. Thu-15:40-O-ECH Thursday, August 31 15:40 / 20 min Regular talk  
**Leszek Zaraska** *Electrochemical methods for the synthesis of nanostructured semiconductors – recent advances, challenges, and perspectives*  
Jagiellonian University

# ECH

## Electrochemistry on Surfaces

15 talks

10. Thu-16:30-O-ECH Thursday, August 31 16:30 / 20 min Regular talk  
**Filippo Longo** *Giant magneto-electrocatalytic effect in Ni-based electrodes*  
Laboratory for Advanced Analytical Technologies, Empa
11. Thu-16:50-O-ECH Thursday, August 31 16:50 / 20 min Regular talk  
**Isabela Man (Traistaru)** *Exploring the activity of the zigzag graphene nanoribbon edges and of the graphene quantum dots for the electrochemical Oxygen Reduction Reaction using DFT*  
Institute of Organic and Supramolecular Chemistry "C.D. Nenitescu of Romanian Academy, Bucharest, Romania
12. Thu-17:10-O-ECH Thursday, August 31 17:10 / 20 min Regular talk  
**Kacper Polus** *Understanding functionalised carbon catalysts for oxygen reduction reaction*  
University of Manchester
13. Thu-17:30-O-ECH Thursday, August 31 17:30 / 20 min Regular talk  
**Yuzu Kobayashi** *Development of New Methods for Single-Molecule Measurements under Electrochemical Environment*  
University of Tokyo/RIKEN
14. Thu-17:50-O-ECH Thursday, August 31 17:50 / 20 min Regular talk  
**Filip Grajkowski** *Exploring tuneable ethylene production via the electrochemical oxidative coupling of methane (EOCM): a case study of doped titanates*  
Department of Chemistry, Massachusetts Institute of Technology
15. Thu-18:10-O-ECH Thursday, August 31 18:10 / 20 min Regular talk  
**Andrea Grespi** *Probing The Electrode-Liquid Interface Using Operando Total-Reflection X-ray Absorption Spectroscopy*  
Lund University

# ENM

## Energy Materials

5 talks

1. Wed-10:30-O-ENM Wednesday, August 30 10:30 / 20 min Regular talk  
**Ibrahima Gueye** *Operando Hard X-ray Photoelectron Spectroscopy Analysis of Halide Transport and Metal Corrosion in Perovskite Solar Cells*  
Japan Synchrotron Radiation Research Institute (JASRI)
2. Wed-10:50-O-ENM Wednesday, August 30 10:50 / 20 min Regular talk  
**Andreas Siebert** *CO<sub>2</sub> absorption of aqueous MEA and DEA solutions studied by Ambient Pressure X-ray Photoelectron Spectroscopy*  
Lawrence Berkeley National Laboratory
3. Wed-11:10-O-ENM Wednesday, August 30 11:10 / 20 min Regular talk  
**Paul Valerian Möllers** *Exploring the Electron Spin Polarization in Chiral Oxide Layers Employed as Spin-Selective Catalysts*  
Center for Soft Nanoscience (SoN), Universität Münster, 48149 Münster, Germany
4. Wed-11:30-O-ENM Wednesday, August 30 11:30 / 20 min Regular talk  
**Ryan Walden** *Effects of plasma gases on the electrical properties of polyester fabric for application in Textile - Triboelectric Nanogenerators*  
Atlantic Technological University - Sligo
5. Wed-11:50-O-ENM Wednesday, August 30 11:50 / 20 min Regular talk  
**Letizia Ferbel** *Platinum-covered graphene as hydrogen storage medium*  
NEST, Istituto Nanoscienze-CNR and Scuola Normale Superiore, Piazza San Silvestro 12, Pisa, 56127, Italy

# FNS

## Functional Surface Nanostructures, Plasmonics, and Sensors

9 talks

1. Thu-14:00-I-FNS Thursday, August 31 14:00 / 40 min Invited speaker  
**Michael Morris** *Surface engineering of surfaces using polymer brushes*  
AMBER, Trinity College Dublin
2. Thu-14:40-O-FNS Thursday, August 31 14:40 / 20 min Regular talk (EPS Travel Grant)  
**Yevgen Borshchagivsky** *Ordered lattices of plasmonic nanoparticles investigated by microellipsometry*  
V Lashkarev Institute of Semiconductor Physics of NAS of Ukraine, pr. Nauki 41, 03028 Kyiv, Ukraine
3. Thu-15:00-O-FNS Thursday, August 31 15:00 / 20 min Regular talk  
**Oisín McCormack** *High Q-factor all-dielectric metasurface for refractive index sensing*  
Trinity College Dublin
4. Thu-15:20-O-FNS Thursday, August 31 15:20 / 20 min Regular talk  
**Semir El-Ahmar** *Two-dimensional and thin-film active layers for magnetic field detection in extreme temperature range*  
Poznan University of Technology
5. Thu-15:40-O-FNS Thursday, August 31 15:40 / 20 min Regular talk  
**Marcin Łapiński** *Thermally driven disintegration of the thin metallic films*  
Gdańsk University of Technology
6. Thu-16:30-I-FNS-ONLINE Thursday, August 31 16:30 / 40 min Invited speaker (Online)  
**Alexei A. Kornyshev** *Electrochemical Photonics*  
Imperial College London
7. Thu-17:10-O-FNS Thursday, August 31 17:10 / 20 min Regular talk  
**Michael Vorochta** *Gas-sensing properties of metal oxide-based chemiresistors studied by near-ambient pressure XPS*  
Charles University
8. Thu-17:30-O-FNS Thursday, August 31 17:30 / 20 min Regular talk  
**Carla Bittencourt** *Hydrogen Sensing Mechanism of WS<sub>2</sub> Gas Sensors Analyzed with NAP-XPS*  
UMONS
9. Thu-17:50-O-FNS Thursday, August 31 17:50 / 20 min Regular talk  
**Weronika Andrzejewska** *Development of SARS-CoV-2 Virus Like Particles*  
NanoBioMedical Centre, Adam Mickiewicz University, Poznań, Poland

# ISI

## *Ion Surface Interactions*

5 talks

1. Mon-16:30-I-ISI Monday, August 28 16:30 / 40 min Invited speaker  
**Zbigniew Postawa** *Processes Stimulated in Organic Samples by Cluster Projectile Bombardment*  
Jagiellonian University, Faculty of Physics, Astronomy and Applied Computer Science, Smoluchowski Institute of Physics, Łojasiewicza 11, 30-348 Kraków, Poland
2. Mon-17:10-O-ISI Monday, August 28 17:10 / 20 min Regular talk  
**Taoufiq Mouhib** *Molecular Dynamics Simulations of P3HT Multilayer under Low-Energy Monoatomic Projectile Bombardment*  
Hassan First University of Settat, Ecole Nationale des Sciences Appliquées, LISA Laboratory, 26103 Berrechid, Morocco
3. Mon-17:30-O-ISI Monday, August 28 17:30 / 20 min Regular talk  
**Michał Kański** *The Projectile Effect in Sputtering of Ice and Liquid Water – Molecular Dynamics Simulations*  
Jagiellonian University, Faculty of Physics, Astronomy and Applied Computer Science, Smoluchowski Institute of Physics
4. Mon-17:50-O-ISI Monday, August 28 17:50 / 20 min Regular talk  
**Masaki Tanemura** *Controllable fabrication of ion-induced Au-nanoprotrusion arrays for energy- and bio-applications*  
Nagoya Institute of Technology
5. Mon-18:10-O-ISI Monday, August 28 18:10 / 20 min Regular talk  
**Pinar Aydoğan Gokturk** *Towards Understanding the Fundamentals of the Membrane Interfaces for Water Purification*  
Koc University

# MAG

## *Magnetism*

8 talks

1. Tue-10:30-I-MAG Tuesday, August 29 10:30 / 40 min Invited speaker  
**Andrea Locatelli** *Magnetism in graphene capped ultra-thin cobalt*  
Elettra - Sincrotrone Trieste S.C.p.A.
2. Tue-11:10-O-MAG Tuesday, August 29 11:10 / 20 min Regular talk  
**Miroslaw Dudek** *2D nanoprinting on elastic thin films through self-assembly of magnetic nanoparticles*  
Institute of Physics, University of Zielona Gora
3. Tue-11:30-O-MAG Tuesday, August 29 11:30 / 20 min Regular talk  
**Paweł Nita** *Ferri-/Antiferromagnetic Heterostructures: a case study of Fe3O4/NiO interface*  
Faculty of Physics, Astronomy and Applied Computer Science, Jagiellonian University, ul. Stanisława Łojasiewicza 11, 30-348 Cracow, Poland
4. Tue-11:50-O-MAG Tuesday, August 29 11:50 / 20 min Regular talk  
**Alex Fétida** *Mapping magnetism with a molecule*  
University of Strasbourg
5. Tue-14:00-O-MAG Tuesday, August 29 14:00 / 20 min Regular talk  
**Jan Dreiser** *Organometallic Lanthanide Single-Ion Magnets on Surfaces*  
Paul Scherrer Institut
6. Tue-14:20-O-MAG Tuesday, August 29 14:20 / 20 min Regular talk  
**Magdalena Birowska** *Magnetic fingerprints of 2D antiferromagnetic crystals*  
University of Warsaw
7. Tue-14:40-O-MAG Tuesday, August 29 14:40 / 20 min Regular talk  
**Marta Przychodnia** *Comprehensive studies of Gd-Pt surface alloys grown on Pt(111)*  
Institute of Physics, Poznan University of Technology
8. Tue-15:00-O-MAG Tuesday, August 29 15:00 / 20 min Regular talk  
**Karol Szałowski** *Proximity-induced spin-orbit and exchange coupling in graphene/1T-TaS2 van der Waals heterostructure controlled with charge density wave and electric field*  
University of Łódź

# OPN

## Optical Properties at the Nanoscale

6 talks

- Wed-16:30-O-OPN** Wednesday, August 30 16:30 / 20 min Regular talk  
**Roberto Otero** *Plasmon Strengthening by Coupling with Molecular Excitons at Metal-Vacuum-Metal Nanocavities*  
Dep. de Física de la Materia Condensada, Universidad Autónoma de Madrid
- Wed-16:50-O-OPN** Wednesday, August 30 16:50 / 20 min Regular talk  
**Alberto Martín-Jiménez** *Selectively Addressing Plasmonic Modes and Excitonic States in a Nanocavity Hosting a Quantum Emitter*  
IMDEA Nanoscience
- Wed-17:10-O-OPN** Wednesday, August 30 17:10 / 20 min Regular talk  
**Rania Zaier** *Strong plasmon-molecule interactions at the nanoscale: hot carrier generation and impact of microstructure*  
Faculty of physics, Warsaw
- Wed-17:30-O-OPN** Wednesday, August 30 17:30 / 20 min Regular talk  
**Yang Luo** *Imaging and Controlling Coherent Phonon Wave Packets in Single Graphene Nanoribbons*  
Max Planck Institute for Solid State Research
- Wed-17:50-O-OPN** Wednesday, August 30 17:50 / 20 min Regular talk  
**David Mateos Roncero** *Optical Properties of Monoatomic Step Edges in Noble Metals Studied by STM*  
IMDEA Nanoscience
- Wed-18:10-O-OPN** Wednesday, August 30 18:10 / 20 min Regular talk  
**Jiří Doležal** *Time-resolved spectromicroscopy of individual phthalocyanine molecules*  
EPFL, Switzerland

# MOL

## Organic Molecules & Molecular Architectures on Surfaces

48 talks

- Mon-10:30-I-MOL** Monday, August 28 10:30 / 40 min Invited speaker  
**Wulf Wulfhekel** *Tripodal molecules as switches, rotors and single photon sources*  
KIT
- Mon-11:10-O-MOL** Monday, August 28 11:10 / 20 min Regular talk  
**Tobias Weiss** *Self-assembly of intrinsically saddle-shaped molecules on noble metals*  
Technical University of Munich, TUM School of Natural Sciences, Physics Department, Garching, Germany
- Mon-11:30-O-MOL** Monday, August 28 11:30 / 20 min Regular talk  
**Suchetana Sarkar** *LT-STM induced reversible switching of thiophene based molecule on Au (111)*  
Technische Universität Dresden
- Mon-11:50-O-MOL** Monday, August 28 11:50 / 20 min Regular talk  
**Sofia Parreiras** *Engineering of a 2D Metal-organic Network Featuring a Large Unquenched Orbital Magnetic Moment*  
IMDEA Nanoscience
- Mon-12:10-O-MOL** Monday, August 28 12:10 / 20 min Regular talk  
**Wun-Chang Pan** *Molecular Architectures and electronic properties of 5,14-ol-5,14-diborapentacyclo on noble metal surfaces*  
Physikalisches Institut, Experimentelle Physik II, Universität Würzburg, Am Hubland, D-97074 Würzburg, Germany
- Mon-14:00-I-MOL** Monday, August 28 14:00 / 40 min Invited speaker  
**Szymon Godlewski** *On-Surface Synthesis of Higher Acenes and Nanographenes*  
Jagiellonian University
- Mon-14:40-O-MOL** Monday, August 28 14:40 / 20 min Regular talk  
**Daniel Ebeling** *On-surface synthesis of organic nanostructures and molecules via scanning probe manipulation*  
Institute of Applied Physics, Justus Liebig University Giessen, Germany
- Mon-15:00-O-MOL** Monday, August 28 15:00 / 20 min Regular talk  
**Rafał Zuzak** *On-surface synthesis with atomic hydrogen*  
Centre for Nanometer-Scale Science and Advanced Materials, NANOSAM, Faculty of Physics, Astronomy and Applied Computer Science, Jagiellonian University, Łojasiewicza 11, PL 30-348 Kraków, Poland
- Mon-15:20-O-MOL** Monday, August 28 15:20 / 20 min Regular talk  
**Wangwei Xu** *Substrate-dependent magnetic properties of a non-hexagonal low-bandgap nanographene*  
EMPA

# MOL

## Organic Molecules & Molecular Architectures on Surfaces

48 talks

10. Mon-15:40-O-MOL Monday, August 28 15:40 / 20 min Regular talk  
**Alisson Ceccatto** *On-Surface Synthesis of Two-Dimensional Coordinated Nanoporous Networks*  
Instituto de Física Gleb Wataghin - Unicamp - Brazil
11. Mon-16:30-O-MOL Monday, August 28 16:30 / 20 min Regular talk  
**Piotr Cyganik** *Electron irradiation of N-heterocyclic carbenes SAMs on gold*  
Jagiellonian University
12. Mon-16:50-O-MOL Monday, August 28 16:50 / 20 min Regular talk  
**Dariusz Günder** *Patterned Growth of Organic Semiconductor Films by Electron Irradiation Induced F-Centers on Alkali Halide Substrates*  
Philipps-University Marburg
13. Mon-17:10-O-MOL Monday, August 28 17:10 / 20 min Regular talk  
**Martin Franz** *Influence of the defect density on the ordering of an NHC monolayer on a silicon surface*  
Technische Universität Berlin, Institut für Festkörperphysik, Berlin, Germany
14. Mon-17:30-O-MOL Monday, August 28 17:30 / 20 min Regular talk  
**Ki-jeong Kim** *Direct observation of chemical structure changes of butyl tin oxo cluster thin films upon extreme ultraviolet irradiation*  
Pohang Accelerator Laboratory, POSTECH
15. Mon-17:50-O-MOL Monday, August 28 17:50 / 20 min Regular talk  
**Daria M. Cegiełka** *Molecular engineering of technologically relevant surfaces - Carboxylic acids on naturally oxidized aluminum*  
Jagiellonian University, Faculty of Physics, Astronomy and Applied Computer Science, Smoluchowski Institute of Physics
16. Mon-18:10-O-MOL Monday, August 28 18:10 / 20 min Regular talk  
**Yunjun Cao** *Electrophilic activation of water at a carbene-metal interface*  
Physical Chemistry I, Ruhr-Universität Bochum, Germany
17. Tue-10:30-I-MOL Tuesday, August 29 10:30 / 40 min Invited speaker  
**Tadahiro Komeda** *Electron Spin Resonance Measurement of an Adsorbed Single Molecule Magnet Terbium Phthalocyanine (TbPc2)*  
Tohoku University
18. Tue-11:10-O-MOL Tuesday, August 29 11:10 / 20 min Regular talk  
**Anna Roślawska** *Submolecular-scale control of phototautomerization*  
Université de Strasbourg, CNRS, IPCMS, UMR 7504, 67000 Strasbourg, France/Max Planck Institute for Solid State Research, 70569 Stuttgart, Germany

# MOL

## Organic Molecules & Molecular Architectures on Surfaces

48 talks

19. Tue-11:30-O-MOL Tuesday, August 29 11:30 / 20 min Regular talk  
**Olga Molodtsova** *Study of In-CuPcF4 nanocomposite by millisecond dynamic XPS and traditional PES and TEM*  
DESY Hamburg
20. Tue-11:50-O-MOL Tuesday, August 29 11:50 / 20 min Regular talk  
**Luca Persichetti** *AlPc synthesis by spontaneous crossmetalation of ZnPc on Al(100)*  
Dipartimento di Fisica, Università di Roma "Tor Vergata"
21. Tue-12:10-O-MOL Tuesday, August 29 12:10 / 20 min Regular talk  
**Grażyna Antczak** *Molecular Growth and Attenuation of Photoelectron Emission by a Single Organic Layer*  
University of Wrocław
22. Tue-14:00-O-MOL Tuesday, August 29 14:00 / 20 min Regular talk  
**Viachelsav Kalinovich** *Bonding and Stability of the Phosphonate Group on the Polycrystalline Cerium Oxide: Effect of the Deposition Technique, Non-functional Group and Temperature*  
Charles University, Faculty of Mathematics and Physics, Department of Surface and Plasma Science, V Holešovičkách 2, Prague, 18000, Czech Republic
23. Tue-14:20-O-MOL Tuesday, August 29 14:20 / 20 min Regular talk  
**Sascha Mehl** *Bonding of thymidine monophosphate on polycrystalline cerium oxide thin films studied by surface sensitive techniques*  
Elettra Sincrotrone Trieste
24. Tue-14:40-O-MOL Tuesday, August 29 14:40 / 20 min Regular talk  
**Luca Camilli** *Chalcogen bond at work on surface*  
University of Rome Tor Vergata
25. Tue-15:00-O-MOL Tuesday, August 29 15:00 / 20 min Regular talk  
**Carolina Mishell Ibarra-Barreno** *Towards two-dimensional BNC architectures on metal surfaces from self-assembled monolayers*  
University of Groningen
26. Tue-15:20-O-MOL Tuesday, August 29 15:20 / 20 min Regular talk  
**Zdeněk Jakub** *Atomically-defined, air-stable 2D metal-organic frameworks on graphene: how the support defines the system properties*  
CEITEC - Central European Institute of Technology, Brno University of Technology, Czechia
27. Tue-15:40-O-MOL Tuesday, August 29 15:40 / 20 min Regular talk  
**Óscar Jover Arrate** *Fullerene and Nanotube-like electronic states experimentally observed in [5,5]-C90 fullertube molecules.*  
Universidad Autónoma de Madrid (UAM)



# MOL

## Organic Molecules & Molecular Architectures on Surfaces

48 talks

28. Wed-10:30-I-MOL Wednesday, August 30 10:30 / 40 min Invited speaker  
**Willi Auwärter**  
Technical University of Munich  
*On-Surface Synthesis of Extended and Heteroatom-Doped Polycyclic Molecules*
29. Wed-11:10-O-MOL Wednesday, August 30 11:10 / 20 min Regular talk  
**Tomasz Grzela**  
Poznan University of Technology  
*On-surface metalation of salophene molecules with Dy on Au(111) substrate*
30. Wed-11:30-O-MOL Wednesday, August 30 11:30 / 20 min Regular talk  
**Maria Tenorio**  
IMDEA Nanociencia  
*On-surface synthesis of bis(benzenehexol)lanthanide sandwiches: chemical, electronic, and magnetic properties.*
31. Wed-11:50-O-MOL Wednesday, August 30 11:50 / 20 min Regular talk  
**Bartosz Handke**  
AGH University of Krakow  
*Surface-induced self-organization of phenyl silsesquioxane thin film as a template for metal/oxide nanostructures growth*
32. Wed-12:10-O-MOL Wednesday, August 30 12:10 / 20 min Regular talk  
**Agata Hochół**  
Department of Physical Chemistry, Faculty of Chemistry, Rzeszow University of Technology, Al. Powstańców Warszawy 6, 35-959 Rzeszów, Poland  
*Designing polyelectrolyte nanolayers formed by complex architecture polymers via surface initiated atom transfer radical polymerization*
33. Wed-14:00-O-MOL Wednesday, August 30 14:00 / 20 min Regular talk  
**Yuji Kuwahara**  
Osaka University, Department of Precision Engineering  
*Stereochemical Recognition of thiaheterohelicene derivatives Investigated by STM and Raman scattering spectroscopy*
34. Wed-14:20-O-MOL Wednesday, August 30 14:20 / 20 min Regular talk  
**Takuma Hattori**  
Department of Precision Engineering, Graduate School of Engineering, Osaka Univ.  
*Optical properties of chiral PTCDI molecules investigated by STM-induced luminescence*
35. Wed-14:40-O-MOL Wednesday, August 30 14:40 / 20 min Regular talk  
**Vipin Mishra**  
Department of Chemistry, KU LEUVEN  
*Large-scale prochiral 2D Covalent Organic Framework at the Solution-graphite surface*
36. Wed-15:00-O-MOL Wednesday, August 30 15:00 / 20 min Regular talk  
**Changqing Ye**  
Department of Precision Engineering, Graduate School of Engineering, Osaka University  
*Theoretical study on stereo recognition of thiaheterohelicene on Ag(111)*

# MOL

## Organic Molecules & Molecular Architectures on Surfaces

48 talks

37. Wed-15:20-O-MOL Wednesday, August 30 15:20 / 20 min Regular talk  
**Piotr Ślęczkowski**  
International Centre for Research on Innovative Biobased Materials (ICRI-BioM) – International Research Agenda, Lodz University of Technology  
*Control of chiral nanostructures in thin films of supramolecular polymers for applications in optoelectronics*
38. Wed-16:30-O-MOL Wednesday, August 30 16:30 / 20 min Regular talk  
**Shabnam Naseri**  
Lulea university of technology  
*Density-functional theory study of porphyrin adsorbed on Ag(111) surface*
39. Wed-16:50-O-MOL Wednesday, August 30 16:50 / 20 min Regular talk  
**Damian Niekarcz**  
Maria Curie-Skłodowska University  
*Triangular X3 Halogen-Bonded Synthons at Play - Insights From Computer Simulations*
40. Wed-17:10-O-MOL Wednesday, August 30 17:10 / 20 min Regular talk  
**Jakub Planer**  
Central European Institute of Technology  
*Ab-initio study of heteromolecular layers: 4,4'-biphenyl dicarboxylic acid with pentacene on Ag(100)*
41. Wed-17:30-O-MOL Wednesday, August 30 17:30 / 20 min Regular talk  
**Emil Sierda**  
Institute for Molecules and Materials, Radboud University, Nijmegen, The Netherlands  
*Quantum simulator to emulate lower dimensional molecular structure*
42. Wed-17:50-O-MOL Wednesday, August 30 17:50 / 20 min Regular talk  
**Paweł Szabelski**  
Maria Curie-Skłodowska University  
*Ullmann Coupling on Surfaces: Structure and Bonding from Computer Simulations*
43. Wed-18:10-O-MOL Wednesday, August 30 18:10 / 20 min Regular talk  
**Xiaocui Wu**  
University of Warwick  
*Characterisation of Polymerisation Defects in Rigid Rod Conjugated Polymers: Electrospray Deposition Combined with High-Resolution Scanning Tunnelling Microscopy*
44. Thu-10:30-I-MOL Thursday, August 31 10:30 / 40 min Invited speaker  
**Remy Pawlak**  
University of Basel  
*Probing charge-state, spin and vibrational excitations of radical molecules by low-temperature scanning probe microscopy*
45. Thu-11:10-O-MOL Thursday, August 31 11:10 / 20 min Regular talk  
**Min Hui Chang**  
Korea university  
*Controlling Localized States of Magnetic Molecules on Au(111) by Metallic Adsorbates*

# MOL

## Organic Molecules & Molecular Architectures on Surfaces

48 talks

46. Thu-11:30-O-MOL Thursday, August 31 11:30 / 20 min Regular talk  
**Jan Čechal**  
CEITEC - Central European Institute of Technology, Brno University of Technology, Czech Republic  
*Tunable Work Function and Energy-Level Alignment by Partially Deprotonated Carboxylic Acid Layers on Silver*
47. Thu-11:50-O-MOL Thursday, August 31 11:50 / 20 min Regular talk  
**Noriyuki Tsukahara**  
National Institute of Technology, Gunma College and The Institute for Solid State Physics, The University of Tokyo  
*Element-dependent growth of metal clusters on the 2D metal organic framework*
48. Thu-12:10-O-MOL Thursday, August 31 12:10 / 20 min Regular talk  
**Katarzyna Gajos**  
Jagiellonian University in Kraków  
*TOF-SIMS examination of the dominant orientation of surface immobilized IgG antibodies: pH and surface density dependent studies*

# OXY

## Oxide Surfaces

21 talks

1. Mon-10:30-I-OXY Monday, August 28 10:30 / 40 min Invited speaker  
**Christian Rodenbücher**  
Forschungszentrum Jülich  
*Preferential reduction of extended defects in perovskite surfaces*
2. Mon-11:10-O-OXY Monday, August 28 11:10 / 20 min Regular talk  
**Martin Setvin**  
Charles University, Prague  
*Cleaved cubic perovskites: Tuning the surface morphology by ferroelectricity and doping*
3. Mon-11:30-O-OXY Monday, August 28 11:30 / 20 min Regular talk  
**Dominik Wrana**  
Institute of Physics, Jagiellonian University  
*Manipulating single polarons on oxide surfaces*
4. Mon-11:50-O-OXY Monday, August 28 11:50 / 20 min Regular talk  
**Luca Fabbri**  
University of Bologna  
*Accurate determination of band tail properties in amorphous oxide semiconductors with Kelvin Probe Force Microscopy*
5. Mon-12:10-O-OXY Monday, August 28 12:10 / 20 min Regular talk  
**Aleksandra Nadolska**  
University of Lodz  
*Nanoscale electrical characterisation and nanomanipulation of MoO<sub>3</sub>-x monolayer*
6. Mon-14:00-I-OXY Monday, August 28 14:00 / 40 min Invited speaker  
**Lindsay Richard Merte**  
Malmö University  
*Oxide formation and structure at platinum-tin alloy surfaces*
7. Mon-14:40-O-OXY Monday, August 28 14:40 / 20 min Regular talk  
**Martin Allen**  
University of Canterbury  
*Unusual 2-D Electron Gas at the Surface of Square SnO<sub>2</sub> Nanotubes*
8. Mon-15:00-O-OXY Monday, August 28 15:00 / 20 min Regular talk  
**Linus Pleines**  
Institute of Solid State Physics, University of Bremen, Bremen, Germany  
*In situ study of the identification of the active sites during oxidation of Ce<sub>2</sub>O<sub>3</sub> on Ru(0001) by CO<sub>2</sub>*
9. Mon-15:20-O-OXY Monday, August 28 15:20 / 20 min Regular talk  
**Aman Baunthiyal**  
Institute of Solid-State Physics, University of Bremen, Germany  
*Growth and Structural Analysis of Gallium Oxide Films on Ru(0001)/Al<sub>2</sub>O<sub>3</sub>(0001) for Low-Power Electronics*
10. Mon-15:40-O-OXY Monday, August 28 15:40 / 20 min Regular talk  
**Wilson Agerico Dino**  
Osaka University  
*Probing Copper and Copper-Gold Surfaces with Space-Quantized Oxygen Molecular Beams*

# OXY

## Oxide Surfaces

21 talks

11. Tue-10:30-I-OXY      Tuesday, August 29      10:30 / 40 min      Invited speaker  
**Rossitza Pentcheva**      *Role of surface orientation, termination and transformation on the OER activity of spinel and perovskite anode materials*  
University of Duisburg-Essen
12. Tue-11:10-O-OXY      Tuesday, August 29      11:10 / 20 min      Regular talk  
**Abner De Siervo**      *A New Stabilization Mechanism for the Polar ZnO(0001)-(2×2) Through Hydrogen Trapping on Zn-vacancies*  
Institute of Physics Gleb Wataghin, University of Campinas
13. Tue-11:30-O-OXY      Tuesday, August 29      11:30 / 20 min      Regular talk  
**Jan Balajka**      *Atomic structure of the reconstructed Al<sub>2</sub>O<sub>3</sub>(0001) surface*  
TU Wien
14. Tue-11:50-O-OXY      Tuesday, August 29      11:50 / 20 min      Regular talk  
**Krisztián Palotás**      *Revised Chen's derivative rules for efficient simulations of STM: Recent results on surface oxides*  
Wigner Research Center for Physics
15. Tue-12:10-O-OXY      Tuesday, August 29      12:10 / 20 min      Regular talk  
**Andrea Conti**      *Ab-initio investigations of the order of K<sup>+</sup> ions on cleaved muscovite mica*  
Institute of Applied Physics, Technical University of Vienna (Austria)
16. Tue-14:00-O-OXY      Tuesday, August 29      14:00 / 20 min      Regular talk  
**Piotr Polak**      *Ultrathin ALD films and nanolaminates based on Al<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub> and ZnO*  
Lukasiewicz Research Network - Institute of Microelectronics and Photonics
17. Tue-14:20-O-OXY      Tuesday, August 29      14:20 / 20 min      Regular talk  
**Corrado Garlisi**      *Characterization and photoelectrochemical behavior of mono- and co-doped sodium tantalate deposited by a combinatorial approach*  
Materials Research and Technology (MRT) Department, Luxembourg Institute of Science and Technology (LIST)
18. Tue-14:40-O-OXY      Tuesday, August 29      14:40 / 20 min      Regular talk  
**Aleksandra Przybyła**      *Temperature – induced tuning of chemical and electron properties in low-cost alumina thin layers*  
Institute of Physics – Centre for Science and Education, Silesian University of Technology, S. Konarskiego Str. 22B, 44-100 Gliwice, Poland
19. Tue-15:00-O-OXY      Tuesday, August 29      15:00 / 20 min      Regular talk  
**Magdalena Sobota**      *Investigation of anti-corrosion properties of Fe-Cr-Si alloys studied by XPS and Mössbauer Spectroscopy*  
Institute of Experimental Physics, University of Wrocław, pl. Maxa Borna 9, 50-204 Wrocław, Poland

# OXY

## Oxide Surfaces

21 talks

20. Tue-15:20-O-OXY      Tuesday, August 29      15:20 / 20 min      Regular talk  
**Camille Ferris**      *Investigation of dry corrosion performance in multi-component alloys using CSAFs.*  
Université de Pau et des Pays de l'Adour, E2S UPPA, CNRS, IPREM, Pau, France
21. Tue-15:40-O-OXY      Tuesday, August 29      15:40 / 20 min      Regular talk  
**Tatiana Ivanova**      *Application of Mössbauer spectroscopy for surface investigation of 316L stainless steel after temperature treatment*  
Palacký University Olomouc

# S&A

## Surfaces & Their Applications

19 talks

1. Wed-14:00-O-S&A Wednesday, August 30 14:00 / 20 min Regular talk  
**Zaheer Ud Din Babar** *Ti3C2Tx MXene-ink modified gold screen-printed electrodes as an efficient transducer for (bio)sensing applications*  
Scuola Superiore Meridionale (SSM), The University of Naples Federico II, Naples, Italy
2. Wed-14:20-O-S&A Wednesday, August 30 14:20 / 20 min Regular talk  
**Ali Jamaati Kenari** *Comparative investigation of BOPP foil surface treatment using various atmospheric-pressure plasma sources*  
Department of Physical Electronics, CEPLANT, Faculty of Science, Masaryk University,
3. Wed-14:40-O-S&A Wednesday, August 30 14:40 / 20 min Regular talk  
**Małgorzata Sroka** *Grafting of multifunctional polymer brushes from a glass surface via surface-initiated atom transfer radical polymerization*  
Department of Physical Chemistry, Faculty of Chemistry, Rzeszów University of Technology
4. Wed-15:00-O-S&A Wednesday, August 30 15:00 / 20 min Regular talk  
**Sylvia Magdziar** *Influence of the cross-linking process on obtaining innovative hybrid materials with hydrophilic-hydrophobic properties for tissue regeneration*  
Institute of Organic Chemistry, Faculty of Chemistry, Lodz University of Technology, Zeromskiego 116, 90-924 Lodz, Poland
5. Wed-15:20-O-S&A Wednesday, August 30 15:20 / 20 min Regular talk  
**Anna Baranowska-Korczyk** *Surface modification of electrospun fibers with silk fibroin*  
Lukasiewicz Research Network – Lodz Institute of Technology
6. Wed-16:30-I-S&A Wednesday, August 30 16:30 / 40 min Invited speaker  
**Hannes Jönsson** *Rethinking the criterion for layer-by-layer metal growth*  
Faculty of Physical Sciences, University of Iceland
7. Wed-17:10-O-S&A Wednesday, August 30 17:10 / 20 min Regular talk  
**Tom Weinert** *Bottom-up Fabrication of FeSb<sub>2</sub> Nanowires on Crystalline GaAs Substrates with Ion-induced Pre-patterning*  
Helmholtz-Zentrum Dresden-Rossendorf
8. Wed-17:30-O-S&A Wednesday, August 30 17:30 / 20 min Regular talk  
**Kurt Hingerl** *Thermodynamic Model for Plasma Assisted Wafer Bonding*  
Univ. Linz
9. Wed-17:50-O-S&A Wednesday, August 30 17:50 / 20 min Regular talk  
**Paul Philip Schmidt** *Triggering the ring growth by manipulating Pb-islands*  
Institute of Physics and Astronomy, University of Potsdam

# S&A

## Surfaces & Their Applications

19 talks

10. Thu-14:00-O-S&A Thursday, August 31 14:00 / 20 min Regular talk  
**Alessandro Corozzi** *Icephobic properties of anti-wetting slippery liquid-infused porous ceramic coatings for aeronautical applications*  
ISSMC-CNR
11. Thu-14:20-O-S&A Thursday, August 31 14:20 / 20 min Regular talk  
**Omid Sharifahmadian** *Design and development of highly robust hydrophobic plasma polymer film on glass substrate*  
Centre for Functional and Surface Functionalized Glass, Alexander Dubček University of Trenčín, Trenčín, Slovakia
12. Thu-14:40-O-S&A Thursday, August 31 14:40 / 20 min Regular talk  
**Floryan Romain** *Development of a glass surface structuring process for the collection of water vapor from seawater*  
Université des Antilles / ETH-Z
13. Thu-15:00-O-S&A Thursday, August 31 15:00 / 20 min Regular talk  
**Indira Husic** *Modification of paper surface with hydrophobic biobased nanocomposite coatings polymerized with UV-light and plasma*  
WOOD K plus - Competence Center for Wood Composites and Wood Chemistry, Altenberger Strasse 69, A-4040 Linz, Austria
14. Thu-15:20-O-S&A Thursday, August 31 15:20 / 20 min Regular talk  
**Markus Ostermann** *From Characterization to Application: Modelling 2D material-based conductive de-icing layers*  
CEST GmbH, Centre for Electrochemical Surface Technology
15. Thu-16:30-O-S&A Thursday, August 31 16:30 / 20 min Regular talk  
**Hidehito Asaoka** *Anisotropic surface stress in one-dimensional Si(110)-“16×2”*  
Advanced Science Research Center, Japan Atomic Energy Agency
16. Thu-16:50-O-S&A Thursday, August 31 16:50 / 20 min Regular talk  
**Changzhi Gu** *The fabrication and properties of nanocone arrays on diamond surface*  
Institute of Physics, Chinese Academy of Sciences, China
17. Thu-17:10-O-S&A Thursday, August 31 17:10 / 20 min Regular talk  
**Eunji Sim** *Oxygen Induced Intra- and Inter-layers Modification of  $\beta$ -InSe: Formation of Pseudo-heterojunction*  
Sungkyunkwan University / Department of Energy Science
18. Thu-17:30-O-S&A Thursday, August 31 17:30 / 20 min Regular talk  
**Hyejun Son** *Effect of each plasma parameter on the high aspect ratio oxide etching process at low-frequency bias power using an inductively coupled plasma system*  
Korea university

# S&A

## Surfaces & Their Applications

19 talks

- 
19. Thu-17:50-O-S&A      Thursday, August 31      17:50 / 20 min      Regular talk  
**Gilyoung Choi**  
Korea university      *A study on the high-aspect-ratio oxide etching characteristics using a Hexafluoroisobutylene with a low global warming potential*

# WES

## Water & Environmental Surfaces

3 talks

- 
1. Wed-17:10-O-WES      Wednesday, August 30      17:10 / 20 min      Regular talk  
**Hiroyuki Koshida**  
Institute of Industrial Science, The University of Tokyo      *Coverage-dependent desorption kinetics of ice on a well-ordered alumina thin film surface*
2. Wed-17:30-O-WES      Wednesday, August 30      17:30 / 20 min      Regular talk  
**Enrico Gnecco**  
Jagiellonian University in Krakow      *Controlled Plowing-Induced Nanostructuring and Particle Release on Polystyrene Surfaces*
3. Wed-17:50-O-WES      Wednesday, August 30      17:50 / 20 min      Regular talk  
**Paul Ryan**  
TU Wien      *The Surface Tension of Pure-Water in its Pure-Vapour*

# ONR

The U.S. Office of Naval Research

1 talks

1. Tue-16:30-F-ONR Tuesday, August 29 16:30 / 30 min Featured speaker  
**Richard Meyer** *Funding Opportunities with the U.S. Office of Naval Research*  
U.S. Office of Naval Research Global, Prague

# MS01

Surface Astrochemistry

6 talks

1. Mon-16:30-K-MS01 Monday, August 28 16:30 / 40 min Keynote speaker  
**Liv Hornekar** *Interstellar Catalysis – a Route to Molecular Complexity in Space*  
Center for Interstellar Catalysis, Dept. Physics and Astronomy, Aarhus University
2. Mon-17:10-O-MS01 Monday, August 28 17:10 / 15 min Regular talk  
**Gerard Pareras Niell** *Computational Studies on Fischer-Tropsch Catalysis in Astrophysical Environments*  
Universitat Autònoma de Barcelona
3. Mon-17:25-O-MS01 Monday, August 28 17:25 / 15 min Regular talk  
**Xavier Michaut** *Impact of nuclear spin conversion of H<sub>2</sub> on Amorphous Solid Water (ASW) on the chemistry of the interstellar medium*  
LERMA - Sorbonne Université
4. Mon-17:40-O-MS01 Monday, August 28 17:40 / 15 min Regular talk  
**Lionel Amiaud** *Quantifying non-thermal desorption from molecular ices - Comparative study of photon and electron irradiation in the valence- and core-shell energy ranges*  
ISMO, Université Paris-Saclay, CNRS
5. Mon-17:55-O-MS01 Monday, August 28 17:55 / 15 min Regular talk  
**Steffen Holleufer** *Synthesising Silica and Silicate from Atomic Constituents: Steps Toward a Model System for Experimental Studies of Interstellar Silicates at the Atomic Level*  
Aarhus University
6. Mon-18:10-F-MS01 Monday, August 28 18:10 / 15 min Featured speaker  
**Dario Campisi** *Super-Oxygenation of Naphthalene: The break-Down Reaction*  
University of Stuttgart



# MS02

## Surface Reactions on 2D Materials and Ultrathin Oxide Films

18 talks

1. Wed-14:00-K-MS02 Wednesday, August 30 14:00 / 40 min Keynote speaker  
**Talat Rahman** *Defects in 2D Materials & Single Atoms on Oxide Surfaces: possible catalysts for a sustainable future*  
Department of Physics, University of Central Florida, Orlando, FL 32816, USA
2. Wed-14:40-O-MS02 Wednesday, August 30 14:40 / 20 min Regular talk  
**Hannes Herrmann** *Reversible switching of the 2D electron gas of SrTiO<sub>3</sub>(001) studied by HREELS and XPS*  
Martin-Luther-Universität Halle-Wittenberg
3. Wed-15:00-O-MS02 Wednesday, August 30 15:00 / 20 min Regular talk  
**Stefania Benedetti** *Role of Cu dopant in H<sub>2</sub> dissociation on Cu:CeO<sub>2</sub> surface*  
CNR NANO Modena
4. Wed-15:20-O-MS02 Wednesday, August 30 15:20 / 20 min Regular talk  
**Sabine Auras** *Pathways across the barrier: CO<sub>2</sub> adsorption and dissociation on vicinal Cu surfaces*  
Centro de Física de Materiales / Universidad del País Vasco
5. Wed-16:30-K-MS02 Wednesday, August 30 16:30 / 40 min Keynote speaker  
**Claudine Noguera** *Stability and mixing behavior of vanadium-iron oxide monolayers on Pt(111) and Ru(0001) substrates*  
CNRS/ INSP
6. Wed-17:10-O-MS02 Wednesday, August 30 17:10 / 20 min Regular talk  
**Johan Gustafson** *Unexpected oxide structures on PtRh(100) during CO oxidation*  
Lund University
7. Wed-17:30-O-MS02 Wednesday, August 30 17:30 / 20 min Regular talk  
**Nika Spiridis** *Gold nanoparticles on periodic self-organized iron oxide templates.*  
Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences Niezapominajek 8, 30-239 Kraków, POLAND
8. Wed-17:50-O-MS02 Wednesday, August 30 17:50 / 20 min Regular talk  
**Michael Furlan** *Oxide honeycomb monolayers: Ti<sub>2</sub>O<sub>3</sub> and Nb<sub>2</sub>O<sub>3</sub> (2 × 2) on Au(111)*  
University of Oxford
9. Wed-18:10-O-MS02 Wednesday, August 30 18:10 / 20 min Regular talk  
**Friederike Elisa Wührl** *Oxide quasicrystal approximants in the Ba-Ti-O system on Pd(111): A LEED and STM study*  
Institute of Physics/ Martin-Luther Universität Halle-Wittenberg

# MS02

## Surface Reactions on 2D Materials and Ultrathin Oxide Films

18 talks

10. Thu-14:00-K-MS02 Thursday, August 31 14:00 / 40 min Keynote speaker  
**Christian Papp** *Covalent Chemistry of small molecules on supported 2D Materials*  
FU Berlin
11. Thu-14:40-O-MS02 Thursday, August 31 14:40 / 20 min Regular talk  
**Sam M Lambrick** *Advancements in Atom Scattering Techniques for Characterizing 2D Materials*  
University of Cambridge
12. Thu-15:00-O-MS02 Thursday, August 31 15:00 / 20 min Regular talk  
**Giovanni Carraro** *CO intercalation and Boudouard reaction under graphene cover on Ni(111)*  
IMEM-CNR, Genova, Italy
13. Thu-15:20-O-MS02 Thursday, August 31 15:20 / 20 min Regular talk  
**Marco Sacchi** *Molecular Diffusion and Reaction on 2D Materials: a First-Principles Perspective*  
University of Surrey
14. Thu-15:40-O-MS02 Thursday, August 31 15:40 / 20 min Regular talk  
**Anton Tamtögl** *Fundamental processes at 2D materials: From in-situ growth studies to a single-molecular perspective of water dynamics.*  
Graz University of Technology
15. Thu-16:30-K-MS02 Thursday, August 31 16:30 / 40 min Keynote speaker  
**Martin Sterrer** *Assembly and reactions of porphyrins on oxide thin film surfaces*  
Institute of Physics, University of Graz
16. Thu-17:10-O-MS02 Thursday, August 31 17:10 / 20 min Regular talk  
**Lars Mohrhuseen** *The impact of water on 2D MoS<sub>2</sub>-based catalysts for hydrodeoxygenation of organic feedstocks: A combined NAP-XPS and NAP-STM study*  
Interdisciplinary Nanoscience Center (iNano), Aarhus University
17. Thu-17:30-O-MS02 Thursday, August 31 17:30 / 20 min Regular talk  
**Jijin Yang** *FeO Interaction with Water from UHV Condition to Ambient and in Electrolyte*  
University of Padua
18. Thu-17:50-O-MS02 Thursday, August 31 17:50 / 20 min Regular talk  
**Enrico Gneco** *Nanolithography-induced exfoliation of multilayered materials*  
Jagiellonian University in Krakow

# MS03

## Response of the Surface on the Ions` Bombardment: Experiments, Theoretical Models and Simulations

6 talks

1. Mon-14:00-K-MS03 Monday, August 28 14:00 / 40 min Keynote speaker  
**Stefan Facsko**  
Institute of Ion Beam Physics and Materials Research, Helmholtz-Zentrum Dresden-Rossendorf  
*Emergence of nanostructures and nanopatterns under ion induced non-equilibrium conditions*
2. Mon-14:40-O-MS03 Monday, August 28 14:40 / 15 min Regular talk  
**Denise J. Erb**  
1 Ion Beam Center, Institute of Ion Beam Physics and Materials Research, Helmholtz-Zentrum Dresden-Rossendorf, Germany  
*Morphological transitions in the patterning of the crystalline Ge(001) surface induced by ion irradiation*
3. Mon-14:55-O-MS03 Monday, August 28 14:55 / 15 min Regular talk  
**Dariusz Banaś**  
Jan Kochanowski University  
*Formation of nanostructures on metals surface using slow highly charged xenon ions*
4. Mon-15:10-O-MS03 Monday, August 28 15:10 / 15 min Regular talk  
**Miguel Sequeira**  
Helmholtz-Zentrum Dresden-Rossendorf  
*Gallium Nitride's Behavior under Strongly Ionising Irradiation: from Bulk to Surface*
5. Mon-15:25-O-MS03 Monday, August 28 15:25 / 15 min Regular talk  
**Aleksi Leino**  
University of Helsinki  
*Insights into swift heavy ion induced-modification processes in a-SiO<sub>2</sub> and a-Ge from molecular dynamics simulations*
6. Mon-15:40-O-MS03 Monday, August 28 15:40 / 15 min Regular talk  
**Milena Majkić**  
Faculty of Technical Sciences, University of Priština, Knjaža Milosa 7, 38220 Kosovska Mitrovica, Serbia  
*Theoretical model for the nanohillocks and nanocraters formation on the metal surface by an impact of slow highly charged ions*

# MS04

## MXenes and Related Materials

5 talks

1. Thu-10:30-K-MS04 Thursday, August 31 10:30 / 40 min Keynote speaker  
**Maohmoud Khaled**  
Hamad Bin Khalifa University  
*Applications of Two-Dimensional Metal Carbides (MXenes) for the removal of emerging contaminants from water*
2. Thu-11:10-F-MS04 Thursday, August 31 11:10 / 20 min Featured speaker  
**Zdenek Sofer**  
Dept. of Inorganic Chemistry, University of Chemistry and Technology Prague, Technicka 5, 166 28 Prague 6  
*MXene surface chemistry and topochemical conversions*
3. Thu-11:30-F-MS04 Thursday, August 31 11:30 / 20 min Featured speaker  
**Magdalena Birowska**  
University of Warsaw  
*Recent Advances in Thermoelectric properties of MXenes-based nanomaterials and beyond*
4. Thu-11:50-O-MS04 Thursday, August 31 11:50 / 20 min Regular talk  
**Yubin Huang**  
Institute of Condensed Matter and Nanosciences, Université catholique de Louvain (UCLouvain), 1348 Louvain-la-Neuve, Belgium  
*Mapping Local Thermal and Thermoelectric Properties of MXenes Via Scanning Thermal Microscopy*
5. Thu-12:10-O-MS04 Thursday, August 31 12:10 / 20 min Regular talk  
**Niels Kubitz**  
Technische Universität Darmstadt  
*Wet-chemical assisted synthesis of nitride and carbonitride MAX phases as potential MXene precursors*

# MS05

## Optical, Vibrational, and Magnetic Properties of van der Waals Materials

5 talks

1. Thu-10:30-K-MS05 Thursday, August 31 10:30 / 40 min Keynote speaker  
**Antonio Polimeni**  
Physics Department, Sapienza University of Rome, Rome, Italy  
*Heterostructuring in mechanically deformed van der Waals materials*
2. Thu-11:10-O-MS05 Thursday, August 31 11:10 / 20 min Regular talk  
**Aurelian Catalin Galca**  
National Institute of Materials Physics, Romania  
*2D Chalcogenides: Anharmonic Phonon Behavior, Cryogenic Sensors, and Energy-Efficient Memristors*
3. Thu-11:30-O-MS05 Thursday, August 31 11:30 / 20 min Regular talk  
**Konrad Wilczyński**  
Faculty of Physics, Warsaw University of Technology, Koszykowa 75, 00-662 Warsaw, Poland  
*Temperature-dependent asymmetric shapes of Raman bands in transition metal dichalcogenides and their heterostructures*
4. Thu-11:50-O-MS05 Thursday, August 31 11:50 / 20 min Regular talk  
**Łucja Kipczak**  
Faculty of Physics University of Warsaw  
*Multidimensional sensing of proximity magnetic fields via intrinsic activation of dark excitons in WSe<sub>2</sub>/CrCl<sub>3</sub> heterostructure*
5. Thu-12:10-O-MS05 Thursday, August 31 12:10 / 20 min Regular talk  
**Jakub Iwański**  
Faculty of Physics, University of Warsaw, Pasteura 5, 02-093 Warsaw, Poland  
*Temperature induced anomalous vibrational properties of epitaxial boron nitride*

# MS06

## Xenes: Two-Dimensional Artificial Materials

5 talks

1. Wed-10:30-K-MS06 Wednesday, August 30 10:30 / 40 min Keynote speaker  
**Zdenek Sofer**  
University of Chemistry and Technology Prague  
*Chemistry of Xenes – 2D silicon and germanium*
2. Wed-11:10-O-MS06 Wednesday, August 30 11:10 / 20 min Regular talk  
**Sara Ghomi**  
CNR-IMM, Politecnico di Milano  
*Growth of ultrathin tellurium films on gold and dielectric substrates*
3. Wed-11:30-F-MS06 Wednesday, August 30 11:30 / 20 min Featured speaker  
**Emiliano Bonera**  
Università di Milano-Bicocca, Italy  
*Optothermal Raman Spectroscopy of 2D materials on metal substrates.*
4. Wed-11:50-O-MS06 Wednesday, August 30 11:50 / 20 min Regular talk  
**Laurita Florean**  
INSP, Sorbonne University  
*Molecular adsorption on Dumbbell Silicene*
5. Wed-12:10-F-MS06 Wednesday, August 30 12:10 / 20 min Featured speaker  
**Christina Birkel**  
School of Molecular Sciences, Arizona State University  
*Expanding the family of MAX phases: Synthesis of exotic layered solids*

# MS07

## Orbital Angular Momentum-Based Phenomena in Quantum Materials and Their Surfaces

5 talks

1. Thu-10:30-K-MS07 Thursday, August 31 10:30 / 40 min Keynote speaker  
**Domenico Di Sante** *The Orbital Angular Momentum to shed light onto the Topology of Quantum Materials*  
Alma Mater Studiorum University of Bologna
2. Thu-11:10-O-MS07 Thursday, August 31 11:10 / 20 min Regular talk  
**Arnab Bose** *Efficient generation of transverse orbital currents by light metals*  
Johannes Gutenberg University of Mainz
3. Thu-11:30-O-MS07 Thursday, August 31 11:30 / 20 min Regular talk  
**Mengyu Yao** *Observation of pressure-induced Weyl state and superconductivity in a chirality-neutral Weyl semimetal candidate SrSi<sub>2</sub>*  
Max-Planck-Institute for Chemical Physics of Solids
4. Thu-11:50-O-MS07 Thursday, August 31 11:50 / 20 min Regular talk  
**Jakub Schusser** *Assessing Nontrivial Topology in Weyl Semimetals by Dichroic Photoemission*  
Exp. Physik VII and Würzburg-Dresden Cluster of Excellence ct.qmat, IMU Würzburg
5. Thu-12:10-O-MS07 Thursday, August 31 12:10 / 20 min Regular talk  
**Lukasz Plucinski** *Geometrical Spin Filtering in Spin-ARPES Maps from WTe<sub>2</sub>*  
Peter Grünberg Institut (PGI-6), FZ Jülich GmbH, 52428 Jülich, Germany

# MS08

## State-of-the-Art ARPES Measurements at Synchrotron

5 talks

1. Wed-10:30-O-MS08 Wednesday, August 30 10:30 / 30 min Regular talk  
**Natalia Olszowska** *Research capabilities and ongoing research of the electron structure at NSRC SOLARIS*  
National Synchrotron Radiation Centre SOLARIS, Jagiellonian University, Czerwone Maki 98, 30-392 Kraków
2. Wed-11:00-K-MS08 Wednesday, August 30 11:00 / 30 min Keynote speaker  
**Valentyn Volobuiev** *Photoemission of Topological Material Epilayers Based on IV-VI Semiconductors and ?-Sn*  
International Research Centre MagTop, Institute of Physics, Polish Academy of Sciences, Aleja Lotników 32/46, PL-02668 Warsaw, Poland
3. Wed-11:30-O-MS08 Wednesday, August 30 11:30 / 20 min Regular talk  
**Ewa Młyńczak** *Surface state on Fe(001)/Au(001) investigated by high-resolution angle-resolved spectroscopy*  
Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Kraków, Poland
4. Wed-11:50-O-MS08 Wednesday, August 30 11:50 / 20 min Regular talk  
**Ashutosh Wadge** *Investigation of topological nodal line semimetal: ZrAs<sub>2</sub>*  
International Research Centre MagTop, Institute of Physics, Polish Academy of Sciences, Aleja Lotników 32/46, PL-02668 Warsaw, Poland
5. Wed-12:10-O-MS08 Wednesday, August 30 12:10 / 20 min Regular talk  
**Honey Boban** *Circular dichroism in Cr<sub>2</sub>Ge<sub>2</sub>Te<sub>6</sub> valence bands*  
Forschungszentrum Jülich (PGI-6)

# MS09

## Single-Molecule Devices: Beyond Electronic Transport

3 talks

1. Thu-14:00-O-MS09 Thursday, August 31 14:00 / 20 min Regular talk  
**Satoshi Kaneko**  
Tokyo Institute of Technology  
*Geometrical Analysis of the Single-?-Stacked Dimer using SERS and Electron Transport Measurement*
2. Thu-14:20-O-MS09 Thursday, August 31 14:20 / 20 min Regular talk  
**Sandra Rodriguez Gonzalez**  
Universidad Autónoma de Madrid  
*Unraveling the transport properties through diradical molecules for elec- and spin-tronics*
3. Thu-14:40-O-MS09 Thursday, August 31 14:40 / 20 min Regular talk  
**Serhii Volosheniuk**  
Kavli Institute of Nanoscience, Delft University of Technology, The Netherlands  
*Thermocurrent spectroscopy of Yu-Shiba-Rusinov states in single-molecule junctions*

# MS10

## Exploring Structure-Properties Correlation in Nanostructured Materials

6 talks

1. Tue-14:00-K-MS10 Tuesday, August 29 14:00 / 40 min Keynote speaker  
**Tommaso A. Salamone**  
Department of Chemistry, Sapienza University of Rome  
*Thiol functionalised gold nanoparticles loaded with methotrexate for cancer treatment: synthesis, characterisation, and in vitro studies*
2. Tue-14:40-F-MS10 Tuesday, August 29 14:40 / 15 min Featured speaker  
**Lionel Amiaud**  
ISMO, Université Paris-Saclay, CNRS  
*Tuning the properties of molecular organic layers at the micron-scale using low-energy electrons*
3. Tue-14:55-O-MS10 Tuesday, August 29 14:55 / 15 min Regular talk  
**María Sánchez-Loredo**  
Universidad Autónoma de San Luis Potosí  
*Role of the surface and structure in the bactericide properties of Cellulose acetate/Ag nanoparticles asymmetric membranes*
4. Tue-15:10-O-MS10 Tuesday, August 29 15:10 / 15 min Regular talk  
**Juliusz Chojenka**  
Institute of Nuclear Physics Polish Academy of Sciences  
*Controlling the photoactivity of nanopatterned titanium oxide*
5. Tue-15:25-O-MS10 Tuesday, August 29 15:25 / 15 min Regular talk  
**Martina Mercurio**  
Department of Chemistry, Sapienza University of Rome, P.le A. Moro 5, 00185 Rome, Italy  
*TiO<sub>2</sub>NPs-AgNPs hybrids: synthesis and characterization of tailored nanosystems for gas sensors applications*
6. Tue-15:40-O-MS10 Tuesday, August 29 15:40 / 15 min Regular talk  
**Marcin Kisiel**  
Department of Physics, University of Basel, Klingelbergstrasse 82, CH-4056 Basel, Switzerland  
*Energy dissipation on magic angle twisted bilayer graphene*

# MS11

## Photoemission Tomography as a Tool for Studying Molecular Interfaces, Applications and Future Perspectives

5 talks

1. Mon-10:30-K-MS11 Monday, August 28 10:30 / 40 min Keynote speaker  
**Stefan Tautz**  
Peter Grünberg Institute  
*Photoemission Orbital Tomography: Imaging Molecular Wave Functions in Reciprocal and Real Space*
2. Mon-11:10-O-MS11 Monday, August 28 11:10 / 20 min Regular talk  
**Benjamin Stadtmüller**  
Department of Physics and OPTIMAS, RPTU Kaiserslautern-Landau, Germany  
*Imaging valence and excited states of fullerenes in momentum space*
3. Mon-11:30-O-MS11 Monday, August 28 11:30 / 20 min Regular talk  
**Ralf Hemm**  
RPTU Kaiserslautern-Landau and Research Center OPTIMAS, Erwin-Schrödinger-Str. 46, 67663 Kaiserslautern, Germany  
*Structural Reorientation of Organic Molecules on Surfaces by Alkali Metal Doping*
4. Mon-11:50-O-MS11 Monday, August 28 11:50 / 20 min Regular talk  
**Martin Sterrer**  
Institute of Physics, University of Graz  
*Charge transfer at metal/oxide/organic interfaces revealed by photoemission orbital tomography and scanning tunneling microscopy*
5. Mon-12:10-O-MS11 Monday, August 28 12:10 / 20 min Regular talk  
**Wiebke Bennecke**  
I. Physikalisches Institut, Georg-August-Universität Göttingen  
*Photoemission orbital tomography of excitons in organic semiconductors*

# MS13

## Nanostructured Materials for Enhancing Light-Matter Interactions

5 talks

1. Wed-10:30-F-MS13 Wednesday, August 30 10:30 / 20 min Featured speaker  
**Krzysztof Bienkowski**  
University of Warsaw  
*Fundamental effect of electrolyte composition over photoelectrochemical processes*
2. Wed-10:50-O-MS13 Wednesday, August 30 10:50 / 20 min Regular talk  
**Aleksandra Szkudlarek**  
AGH University of Krakow, Academic Centre for Materials and Nanotechnology  
*CuO-Fe<sub>2</sub>O<sub>3</sub> nanoheterojunctions for photoelectrochemical energy conversion*
3. Wed-11:10-O-MS13 Wednesday, August 30 11:10 / 20 min Regular talk  
**Aleksandra Szymańska**  
University of Warsaw / Faculty of Physics  
*Nanogap plasmonic structures for biosensing applications*
4. Wed-11:30-O-MS13 Wednesday, August 30 11:30 / 20 min Regular talk  
**Alexander Korneluk**  
University of Warsaw  
*Carrier density modulation and ionic effects in electrically reconfigurable MOS stack*
5. Wed-11:50-O-MS13 Wednesday, August 30 11:50 / 20 min Regular talk  
**Olga Kochanowska**  
Faculty of Physics, University of Warsaw  
*Optical response of finite hyperbolic metamaterials*



# MS14

## Atomic Scale Mineral-Water Interfaces

7 talks

1. Wed-14:00-K-MS14 Wednesday, August 30 14:00 / 40 min Keynote speaker  
**Angelika Kühnle** *Atomic-resolution imaging at mineral-water interfaces*  
Bielefeld University
2. Wed-14:40-F-MS14 Wednesday, August 30 14:40 / 20 min Featured speaker  
**Kersti Hermansson** *Water and hydroxides at interfaces – similar and different*  
Uppsala University
3. Wed-15:00-O-MS14 Wednesday, August 30 15:00 / 20 min Regular talk  
**Franziska Sabath** *Insights into the Interface between K-Feldspars and Water with Two- and Three-Dimensional Atomic Force Microscopy*  
Bielefeld University
4. Wed-15:20-F-MS14 Wednesday, August 30 15:20 / 20 min Featured speaker  
**Philipp Rahe** *Water adsorption on the calcite(104)-(2×1) surface*  
Fachbereich Mathematik/Informatik/Physik, Universität Osnabrück, Germany
5. Wed-15:40-O-MS14 Wednesday, August 30 15:40 / 20 min Regular talk  
**Tobias Dickbreder** *Investigating the (001) Surface of K-rich Feldspar Minerals on the Atomic Scale*  
Bielefeld University
6. Wed-16:30-F-MS14 Wednesday, August 30 16:30 / 20 min Featured speaker  
**David E. Starr** *Solid-liquid interfaces studied with synchrotron-based ambient pressure X-ray photoelectron spectroscopy*  
Institute for Solar Fuels, Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Hahn-Meitner-Platz 1, 14109 Berlin, Germany
7. Wed-16:50-F-MS14 Wednesday, August 30 16:50 / 20 min Featured speaker  
**Marek Kosmulski** *Gresham's law in pH-dependent surface-charging*  
Lublin University of Technology

# MS15

## At the Junction between Surface Chemistry and Physics: the Complementary Application of Surface Zeta Potential and Kelvin Probe Force Microscopy

3 talks

1. Tue-10:30-O-MS15 Tuesday, August 29 10:30 / 20 min Regular talk  
**Piotr Warszyński** *Various aspects of surface charge and zeta potential relationship in the area of nanocrystals, colloids, emulsions and foams*  
Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences
2. Tue-10:50-O-MS15 Tuesday, August 29 10:50 / 20 min Regular talk  
**Silvia Spriano** *The use of electrokinetic zeta potential and KPFM measurements in the functionalization of biomaterials*  
Politecnico di Torino
3. Tue-11:10-O-MS15 Tuesday, August 29 11:10 / 20 min Regular talk  
**Joanna Knapczyk-Korczak** *Surface potential and charges measured by Kelvin probe force microscopy and Zeta potential of polymer fibers and meshes*  
AGH University of Krakow

# PCAM

## Summer School

8 talks

1. Mon-10:30-O-PCAM Monday, August 28 10:30 / 120 min PCAM Lecture  
**Ioannis Deretzis** *Introduction to the Density Functional Theory*
2. Mon-14:00-O-PCAM Monday, August 28 14:00 / 120 min PCAM Lecture  
**Ioannis Deretzis** *Applications of the DFT in surface science and 2D materials*
3. Tue-10:30-O-PCAM Tuesday, August 29 10:30 / 120 min PCAM Lecture  
**Benedykt Jany** *Applications of ML Based Techniques for Material Characterization at Nano and Atomic Scale*
4. Tue-14:00-O-PCAM Tuesday, August 29 14:00 / 120 min PCAM Lecture  
**Enrico Gnecco** *Layered materials as solid lubricants*
5. Wed-10:30-O-PCAM Wednesday, August 30 10:30 / 120 min PCAM Lecture  
**Lindsay Richard Merte** *Catalysis*
6. Wed-14:00-O-PCAM Wednesday, August 30 14:00 / 120 min PCAM Lecture  
**Beatriz Roldán-Cuenya** *Catalysis*
7. Thu-10:30-O-PCAM Thursday, August 31 10:30 / 120 min PCAM Lecture  
**Joel Cox** *2D materials*
8. Thu-14:00-O-PCAM Thursday, August 31 14:00 / 120 min PCAM Lecture  
**Fei Ding** *2D materials*

# Posters Monday

52 posters

1. Mon-PP-1 Monday, August 28 18:30 / 90 min Poster  
**Katsuyoshi Kobayashi** *Theoretical Study on Magnetic Structures of VSe<sub>8</sub> Thin Films*  
Ochanomizu University
2. Mon-PP-2 Monday, August 28 18:30 / 90 min Poster  
**Jazmín Aragón Sánchez** *Scanning tunneling microscopy study of Ag fluorination*  
Department of Physics, University of Rome Tor Vergata, via della Ricerca Scientifica 1, Rome, Italy
3. Mon-PP-3 Monday, August 28 18:30 / 90 min Poster  
**Natalie J. Waleska-Wellenhofer** *Nano-SMSI on bimetallic FePt clusters*  
Friedrich-Alexander-Universität Erlangen-Nürnberg
4. Mon-PP-4 Monday, August 28 18:30 / 90 min Poster  
**Masahiro Haze** *Monte Carlo based method for fitting of a superconducting spectrum measured by low temperature STM*  
University of Tokyo
5. Mon-PP-5 Monday, August 28 18:30 / 90 min Poster  
**Daniel Rothhardt** *Atomically thin transition metal halide NiBr<sub>2</sub> grown on Au(111)*  
Institute of Physics and Astronomy, University of Potsdam, 14476 Potsdam-Golm, Germany
6. Mon-PP-6 Monday, August 28 18:30 / 90 min Poster  
**Katarzyna Kwiecień** *Morphology and electric properties of oxidized HfSe<sub>2</sub> surface*  
Institute of Physics, Poznań University of Technology, Piotrowo Street 3, 60-965 Poznań
7. Mon-PP-7 Monday, August 28 18:30 / 90 min Poster  
**Piotr Dziawa** *Investigations of MBE grown Pb<sub>1-x</sub>Sn<sub>x</sub>Te(110) layers*  
Institute of Physics, Polish Academy of Sciences, Warsaw, Poland
8. Mon-PP-8 Monday, August 28 18:30 / 90 min Poster  
**Patryk Szymczak** *Crafting Mesoporous Nanocrystalline Titania Thin Films on a Self-Assembling Phenyl Silsesquioxane Scaffold*  
AGH University of Krakow
9. Mon-PP-9 Monday, August 28 18:30 / 90 min Poster  
**Satoshi Katano** *Atomic Scale Observation of NaCl Thin Crystal Growth on Au(111) by Scanning Tunneling Microscopy*  
Toyo University

# Posters Monday

52 posters

10. Mon-PP-10 Monday, August 28 18:30 / 90 min Poster  
**Wendell Simões e Silva** *Probing the electronic structure of Bi<sub>4</sub>Te<sub>3</sub>*  
Brazilian Synchrotron Light Laboratory
11. Mon-PP-11 Monday, August 28 18:30 / 90 min Poster  
**Beatrice Ferrari** *Ultrafast Electron Diffraction Reveals Phononic Excitations in Indirect Excitons of MoS<sub>2</sub>*  
Milano Bicocca
12. Mon-PP-12 Monday, August 28 18:30 / 90 min Poster  
**Vladimir Ivanovski** *IR ratio-reflectance spectra in the analysis of siloxane coatings on glass*  
Ss. Cyril and Methodius University in Skopje, Faculty of Natural Sciences and Mathematics, Institute of Chemistry, Arhimedova 5, 1000 Skopje, Macedonia
13. Mon-PP-13 Monday, August 28 18:30 / 90 min Poster  
**Aleksandra Marszał** *Low Friction h-BN/Inconel 617 Metal-Ceramic Composite for High-Temperature Applications*  
Lodz University of Technology
14. Mon-PP-14 Monday, August 28 18:30 / 90 min Poster  
**Masanori Kaku** *Surface modification of polyethylene terephthalate by deep-ultraviolet LED irradiations*  
University of Miyazaki
15. Mon-PP-15 Monday, August 28 18:30 / 90 min Poster  
**Jiayi Lu** *On-Surface Construction of Two-dimensional Metal–Organic Framework Glasses by a High-throughput Method*  
Materials Genome Institute, Shanghai University, China
16. Mon-PP-16 Monday, August 28 18:30 / 90 min Poster  
**Fengru Zheng** *Predicting molecular self-assembly on metal surfaces using graph networks with experimental dataset*  
Materials Genome Institute, Shanghai University
17. Mon-PP-17 Monday, August 28 18:30 / 90 min Poster  
**Michael Furlan** *The influence of surface structure and reconstructions on NHeterocyclic Carbene self-assembly*  
Queen's University
18. Mon-PP-18 Monday, August 28 18:30 / 90 min Poster  
**Kejian Hou** *Adsorption of Tyr-Ala and Tryptophan on rutile TiO<sub>2</sub> (110): A Photoemission and Near Edge X-ray Absorption Fine Structure Study*  
The University of Manchester

# Posters Monday

52 posters

19. Mon-PP-19 Monday, August 28 18:30 / 90 min Poster  
**Leonard Neuhaus** *On-Surface Reaction of Tetraphenylporphyrin with Caesium*  
Philipps-Universität Marburg
20. Mon-PP-20 Monday, August 28 18:30 / 90 min Poster  
**Olga Molodtsova** *Non-reactive metal nanoparticles embedded in organic matrix*  
DESY Hamburg
21. Mon-PP-21 Monday, August 28 18:30 / 90 min Poster  
**Anna Kurowska** *Dicyanoanthracene self-assembly on the topological insulator Bi<sub>2</sub>Se<sub>3</sub>(0001) surface*  
CEITEC BUT Brno
22. Mon-PP-22 Monday, August 28 18:30 / 90 min Poster  
**Agata Kordek** *Operando DRS UV-vis as the versatile tool for silver speciation*  
Faculty of Chemistry, Jagiellonian University in Kraków
23. Mon-PP-23 Monday, August 28 18:30 / 90 min Poster  
**Thanh Dung Hoang** *Transition-Metal-Ion-Doped rGO Nanocomposites with Enhanced Photocatalytic Activities*  
Sookmyung Women's University
24. Mon-PP-24 Monday, August 28 18:30 / 90 min Poster  
**Mateusz Suchodół** *Probing the mechanism of facile water dissociation on oxygen covered Cu(111) by Reflection Absorption Infrared Spectroscopy (RAIRS)*  
EPFL
25. Mon-PP-25 Monday, August 28 18:30 / 90 min Poster  
**Yu Kwon Kim** *Thermocatalytic approaches for the simultaneous production of hydrogen and solid carbon from hydrocarbon-based raw materials employing molten liquid catalysts*  
Ajou University
26. Mon-PP-26 Monday, August 28 18:30 / 90 min Poster  
**Robert Peter** *Photocatalytic activity of Cu-doped ZnO thin films grown by atomic layer deposition*  
Faculty of Physics and Center for Micro- and Nanosciences and Technologies, University of Rijeka, Croatia
27. Mon-PP-27 Monday, August 28 18:30 / 90 min Poster  
**Ewelina Frątczak** *Electronic properties of thin-film CoO-C nanocatalysts deposited in cold plasma with self-assembled heterojunctions*  
Department of Molecular Engineering, Faculty of Process and Environmental Engineering, Lodz University of Technology, Wólczajska 213, 93-005 Lodz, Poland

# Posters Monday

52 posters

28. Mon-PP-28 Monday, August 28 18:30 / 90 min Poster  
**Aoussaj Sbai**  
Gdansk university of technology  
*Singlet and triplet excited states properties of a series of BODIPY dyes as calculated by TDDFT and STEOM-DLPNO-CCSD methods*
29. Mon-PP-29 Monday, August 28 18:30 / 90 min Poster  
**Henryk Szramowski**  
Nicolaus Copernicus University in Toruń / Boryszew Automotive Plastics  
*New primers for polyolefins based on PP-g-MAH*
30. Mon-PP-30 Monday, August 28 18:30 / 90 min Poster  
**Shiva Moradmand**  
CNRS, Sorbonne Université, Institut des NanoSciences de Paris  
*Tuning Electronic Properties in Nanoparticles of Gold*
31. Mon-PP-31 Monday, August 28 18:30 / 90 min Poster  
**Paulina Musolf**  
Institute of Physical Chemistry, Polish Academy of Sciences, Warsaw (Poland)  
*Development of a fiber-optic sensor for detecting inflammatory markers. Modification of oxide surfaces.*
32. Mon-PP-32 Monday, August 28 18:30 / 90 min Poster  
**Ester Pérez Penco**  
Advanced Research Center for Nanolithography (ARCNL), Science Park 106, 1098 XG Amsterdam, The Netherlands (NL)  
*Growth and identification of thin Ru silicide films*
33. Mon-PP-33 Monday, August 28 18:30 / 90 min Poster  
**Alenka Vesel**  
Josef Stefan Institute  
*Ammonia Production for Hydrogen Storage*
34. Mon-PP-34 Monday, August 28 18:30 / 90 min Poster  
**Adam Dziwoki**  
Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences  
*Sample holders and adapters for Magnetic Field Assisted Epitaxial Growth of Magnetite Films*
35. Mon-PP-35 Monday, August 28 18:30 / 90 min Poster  
**Hadeel Hussain**  
Diamond Light Source  
*Beamline I07: Surface X-ray Scattering Beamline at Diamond Light Source*
36. Mon-PP-36 Monday, August 28 18:30 / 90 min Poster  
**Pavel Dudin**  
Synchrotron SOLEIL  
*Electronic structure of 2D materials determined with ANTARES nanoARPES facility.*

# Posters Monday

52 posters

37. Mon-PP-37 Monday, August 28 18:30 / 90 min Poster  
**Pol Torres-Vila**  
École Polytechnique Fédérale de Lausanne - Microsystems Laboratory 1  
*Towards few ions silicon doping using monolayer doping*
38. Mon-PP-38 Monday, August 28 18:30 / 90 min Poster  
**Patryk Krempieński**  
University of Łódź  
*Computer simulation of the magnetocaloric effect in a cluster containing  $S = 7/2$  gadolinium ions*
39. Mon-PP-39 Monday, August 28 18:30 / 90 min Poster  
**Krzysztof Warda**  
Solid State Physics Department, University of Łódź  
*The ultra-fast demagnetization process in magnetic materials*
40. Mon-PP-40 Monday, August 28 18:30 / 90 min Poster  
**Wojciech Pawlak**  
Łódź University of Technology  
*SiC/Inconel 617 Metal-Ceramic Composites for High-Temperature Friction*
41. Mon-PP-41 Monday, August 28 18:30 / 90 min Poster  
**Jan Smyczek**  
Institute for Physical Chemistry  
*Epitaxial growth of ultrathin CoOx films and their interaction water*
42. Mon-PP-42 Monday, August 28 18:30 / 90 min Poster  
**Marcin Pisarek**  
Institute of Physical Chemistry, Polish Academy of Sciences  
*Active photoanodes in the UV-Vis light range based on N-doped TiO<sub>2</sub> nanotubes*
43. Mon-PP-43 Monday, August 28 18:30 / 90 min Poster  
**Kinga Freindl**  
Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences  
*Oxidation Resistance of Fe on Ru(0001) – the Role of the Substrate and Preparation Conditions*
44. Mon-PP-44 Monday, August 28 18:30 / 90 min Poster  
**Emanuel Alberto Martínez**  
GFMC, Departamento de Física de Materiales, Universidad Complutense de Madrid, 28040, Madrid, Spain  
*Anisotropic Electronic Structure of the Two-Dimensional Electron Gas at the AlOx/KTaO<sub>3</sub>(110) interface*
45. Mon-PP-45 Monday, August 28 18:30 / 90 min Poster  
**Lucyna Grządziel**  
Institute of Physics – Centre for Science and Education, Silesian University of Technology  
*Defect utilization in technology: post-deposition thermal treatment impact on morphological, chemical and electronic structure of sol-gel ZnO thin films*

# Posters Monday

52 posters

46. Mon-PP-46 Monday, August 28 18:30 / 90 min Poster  
**Jerzy Kubacki**  
University of Silesia  
*Modification of the surface layer of (100) KTaO<sub>3</sub> single crystal at low of oxygen partial pressure at elevated temperature.*
47. Mon-PP-47 Monday, August 28 18:30 / 90 min Poster  
**Kanji Homma**  
Tokyo Tech.  
*Effect of Charge Transfer on Electron Transport in the Naphthalene Single-Molecule Junction Revealed by SERS*
48. Mon-PP-48 Monday, August 28 18:30 / 90 min Poster  
**Harunari Okura**  
Tokyo Institute of Technology  
*Electron transport through single DNA molecule with Covalently Modified Strand*
49. Mon-PP-49 Monday, August 28 18:30 / 90 min Poster  
**Jae-sung Kim**  
Sook-Myung Women's University  
*Nanoscale pattern formation on Si surfaces bombarded with a Kr ion beam -revisted*
50. Mon-PP-50 Monday, August 28 18:30 / 90 min Poster  
**Aishwarya Sudhama**  
Department of Chemistry-Ångström Laboratory, Uppsala University, Lägerhyddsvägen 1, BOX 538, Uppsala, 75121, Sweden  
*Unrevealing the relationship between protonic double layer and surface acidity from density functional theory-based molecular dynamics simulations*
51. Mon-PP-51 Monday, August 28 18:30 / 90 min Poster  
**Arkadiusz Foks**  
Jan Kochanowski University  
*Production of various surface nanostructures in collisions of highly charged xenon ions with gold single crystal*
52. Mon-PP-52 Monday, August 28 18:30 / 90 min Poster  
**Michał Piskorski**  
Department of Solid State Physics, Faculty of Physics and Applied Informatics, University of Lodz  
*Construction of a Raman spectrometer for surface mapping in an inert gas atmosphere in a glove-box*

# Posters Wednesday

53 posters

1. Wed-PP-1 Wednesday, August 30 18:30 / 90 min Poster  
**Victor Aristov**  
Deutsches Elektronen-Synchrotron DESY  
*Synchrotron-based study of graphene on cubic-SiC(001): covalent functionalization by Neutral red dye*
2. Wed-PP-2 Wednesday, August 30 18:30 / 90 min Poster  
**Muthu Prasath Thirugnanasambandam Masilamani**  
Experimentelle Physik VII and Würzburg-Dresden Cluster of Excellence ct.qmat, Universität Würzburg, Würzburg, Germany  
*One-Step Model Photoemission Calculations of Type-II Dirac Semimetal PtTe<sub>2</sub>*
3. Wed-PP-3 Wednesday, August 30 18:30 / 90 min Poster  
**Sylvester Sahayaraj Masilamani Leo**  
Centrum Badań i Rozwoju Technologii dla Przemysłu S.A., ul. L. Waryńskiego 3A, 00-645 Warszawa, Poland  
*The influence of annealing on electronic properties of ALD grown Ge:ZnO thin films*
4. Wed-PP-4 Wednesday, August 30 18:30 / 90 min Poster  
**Piotr Drózd**  
Institute of Physics, Maria Curie-Skłodowska University, Poland  
*From pure alpha phase to isolated islands of alpha and beta phases antimonene on W(110)*
5. Wed-PP-5 Wednesday, August 30 18:30 / 90 min Poster  
**Mariusz Florek**  
Research and Development Division, PREVAC sp. z o.o., Raciborska 61, 44-362 Rogów, Poland  
*Innovative vacuum manipulator of substrates for deposition of selected nanomaterials of controlled surface properties*
6. Wed-PP-6 Wednesday, August 30 18:30 / 90 min Poster  
**Jun Nara**  
National Institute for Materials Science  
*Geometric and Electronic Structures of MoTe<sub>2</sub> Monolayer Grown on GaAs(111)B Surface*
7. Wed-PP-7 Wednesday, August 30 18:30 / 90 min Poster  
**Kei Hosomi**  
Shizuoka University  
*Intense Luminescence of Gd<sup>3+</sup>-doped YAlO<sub>3</sub>/LaAlO<sub>3</sub> Thin Film for High-resolution Biological Imaging by EXA Microscopy*
8. Wed-PP-8 Wednesday, August 30 18:30 / 90 min Poster  
**Agnieszka Stępnia-Dybala**  
Institute of Physics, Maria Curie-Skłodowska University, Pl. M. Curie-Skłodowskiej 1, Lublin 20-031, Poland  
*Effect of the Si stepped surface anisotropy on Si-Au structures.*
9. Wed-PP-9 Wednesday, August 30 18:30 / 90 min Poster  
**Thibault Léchevin**  
Umons / KU Leuven  
*Modelling Chiral Expression in Paracyclophanes Self-Assemblies*

# Posters Wednesday

53 posters

10. Wed-PP-10 Wednesday, August 30 18:30 / 90 min Poster  
**Richa Arjariya**  
Indian Institute of Technology Kanpur  
*Dynamic Polymorph Formation of a Trimesic Acid Derivative at Solid-Liquid Interface*
11. Wed-PP-11 Wednesday, August 30 18:30 / 90 min Poster  
**Álvaro Miranda**  
Instituto Politécnico Nacional, ESIME-Cuahuacán  
*Theoretical calculations of transition metal functionalized siligene for NO sensing*
12. Wed-PP-12 Wednesday, August 30 18:30 / 90 min Poster  
**Błażej Gołyśny**  
University of Wrocław, Faculty of Physics and Astronomy, Wrocław, Poland  
*Physical vapor deposition of ultrathin F16CuPc films on Ag(100) surfaces.*
13. Wed-PP-13 Wednesday, August 30 18:30 / 90 min Poster  
**Lukasz Walczak**  
Research and Development Division, PREVAC sp. z o.o., Raciborska 61, 44-362 Rogów, Poland  
*Biomaterials studies using PES research platform*
14. Wed-PP-14 Wednesday, August 30 18:30 / 90 min Poster  
**Lee Gannon**  
School of Physics, Trinity College Dublin, College Green, Dublin 2, Ireland  
*X-ray spectroscopic studies of the on-surface synthesis of 1D cyclodehydrogenated porphyrin chains*
15. Wed-PP-15 Wednesday, August 30 18:30 / 90 min Poster  
**Masahiro Shibuta**  
Osaka Metropolitan Univ.  
*Two-Photon Photoemission Spectroscopy and Microscopy for Electronic and Plasmonic Characterizations of Molecularly Designed Organic Surfaces*
16. Wed-PP-16 Wednesday, August 30 18:30 / 90 min Poster  
**Shukichi Tanaka**  
National Institute of Information and Communications Technology  
*Mesh structures formed by hexabromo-triphenylene on Cu(111) and Au(111)*
17. Wed-PP-17 Wednesday, August 30 18:30 / 90 min Poster  
**Wojciech Kamiński**  
University of Wrocław  
*Apparent height of the metal atom in phthalocyanine: Co vs. Cu*
18. Wed-PP-18 Wednesday, August 30 18:30 / 90 min Poster  
**Martin Hedevang**  
Aarhus University  
*Studying the structure of MoS<sub>2</sub>-based catalysts in ambient pressure hydrodeoxygenation-relevant conditions*

# Posters Wednesday

53 posters

19. Wed-PP-19 Wednesday, August 30 18:30 / 90 min Poster  
**Karolina Gałęziowska**  
Cracow University of Technology  
*Nickel – Based Monolithic Catalysts with Segmented Construction for CO<sub>2</sub> Methanation*
20. Wed-PP-20 Wednesday, August 30 18:30 / 90 min Poster  
**Vy Ngoc Pham**  
Sookmyung Women's University  
*In-situ XPS study for Photocatalytic Oxidation of HMF molecules using ZnxCd1-xS Nanoparticles Depending on Irradiation Wavelength*
21. Wed-PP-21 Wednesday, August 30 18:30 / 90 min Poster  
**Agata Kordek**  
Faculty of Chemistry, Jagiellonian University in Kraków  
*Oxygen splitting in Fe-mordenite: a promising route for methane to methanol oxidation at room temperature*
22. Wed-PP-22 Wednesday, August 30 18:30 / 90 min Poster  
**Kamil Zawadziński**  
Faculty of Chemistry, Jagiellonian University in Kraków  
*On the origin of nickel sites in zeolites: operando DRS UV-vis investigations*
23. Wed-PP-23 Wednesday, August 30 18:30 / 90 min Poster  
**Vladyslav Virchenko**  
Leiden Institute of Science/Leiden University  
*Oxygen-induced reconstruction of Cu and chemical activity toward CO oxidation*
24. Wed-PP-24 Wednesday, August 30 18:30 / 90 min Poster  
**Eva Marie Freiburger**  
Friedrich-Alexander-Universität Erlangen-Nürnberg  
*Adsorption and Thermal Evolution of Bromine on Rh(111): A combined XPS, LEED and DFT Study*
25. Wed-PP-25 Wednesday, August 30 18:30 / 90 min Poster  
**Andrea Sartori**  
ESRF  
*High Energy X-ray Characterization of Interfaces in Complex Materials for Quantum Applications*
26. Wed-PP-26 Wednesday, August 30 18:30 / 90 min Poster  
**Richard Gubo**  
SynCat@Beijing, Synfuels China Technology Co. Ltd., Leyuan South Street II, No. 1, Huairou District, 101407 Beijing, China, National Energy Center for Coal to Liquids, Synfuels China Co., Ltd., Beijing 101400, China  
*Atomistic understanding of the formation, structure, and decomposition of an Fe<sub>4</sub>C iron carbide phase*
27. Wed-PP-27 Wednesday, August 30 18:30 / 90 min Poster  
**Michał Cichomski**  
University of Łódź  
*Self-assembled monolayers as modifiers of titanium-doped diamond-like coatings.*



# Posters Wednesday

53 posters

28. Wed-PP-28 Wednesday, August 30 18:30 / 90 min Poster  
**Ian Shuttleworth** *Non-linear moments modelling of metal, oxygen and hydrogen binding to metallic surfaces*  
 Nottingham Trent University
29. Wed-PP-29 Wednesday, August 30 18:30 / 90 min Poster  
**Irmína Zawieja-Bartosíńska** *How Accurate are Lattice Models of Physical Processes in Disordered Solids? Charge-Carrier Transport and Recombination in Organic Semiconductors.*  
 Institute of Applied Radiation Chemistry, Lodz University of Technology
30. Wed-PP-30 Wednesday, August 30 18:30 / 90 min Poster  
**Tomasz Tarnawski** *Growth of PtNi Nanoparticle Films: correlation between in-situ Liquid Cell Transmission Electron Microscopy and bulk Experiments*  
 Institute of Nuclear Physics Polish Academy of Sciences, PL-31-342 Krakow, Poland
31. Wed-PP-31 Wednesday, August 30 18:30 / 90 min Poster  
**Sylwia Smarzewska** *Interdisciplinary Characterization of Electrochemical Working Electrode Surface Modification with Graphene-Based Electrocatalysts*  
 Department of Inorganic and Analytical Chemistry, Faculty of Chemistry, University of Lodz
32. Wed-PP-32 Wednesday, August 30 18:30 / 90 min Poster  
**Raluca-Ioana Jalbă** *The ORR activity of undoped and N-doped triangle shaped graphene quantum dots using DFT*  
 #ARGI
33. Wed-PP-33 Wednesday, August 30 18:30 / 90 min Poster  
**Karolina Kowalewska** *Synthesis and characterization of polyamide materials at micro – ITIES*  
 University of Lodz, Faculty of Chemistry, Department of Inorganic and Analytical Chemistry, Electrochemistry@Soft Interfaces team (E@SI)
34. Wed-PP-34 Wednesday, August 30 18:30 / 90 min Poster  
**Laurens De Jong** *Modelling the electric double layer under UHV conditions: Cations and Hydrogen at the Electrochemical Interface of Pt and H<sub>2</sub>O*  
 Leiden University (Leiden Institute of Chemistry)
35. Wed-PP-35 Wednesday, August 30 18:30 / 90 min Poster  
**Katarzyna Płacheta** *Surface and bulk defect states in TiO<sub>x</sub> thin film photoanodes for water splitting*  
 AGH University of Krakow, Faculty of Materials Science and Ceramics, al. A. Mickiewicza 30, 30-059 Kraków, Poland
36. Wed-PP-36 Wednesday, August 30 18:30 / 90 min Poster  
**Miguel Cruz Irisson** *Theoretical modelling of germanium nanowires as anode materials in rechargeable batteries*  
 Instituto Politécnico Nacional, ESIME Culhuacán

# Posters Wednesday

53 posters

37. Wed-PP-37 Wednesday, August 30 18:30 / 90 min Poster  
**Lucia G Arellano** *Hydrogen storage on tin carbide monolayers with transition metal adatoms*  
 Instituto Politécnico Nacional, ESIME Culhuacán
38. Wed-PP-38 Wednesday, August 30 18:30 / 90 min Poster  
**Max Trouton** *Surface morphology and crystallography of the hybrid organic-inorganic perovskite (HOIP) methylammonium lead bromide MAPbBr<sub>3</sub> (001)*  
 UCL
39. Wed-PP-39 Wednesday, August 30 18:30 / 90 min Poster  
**Jac Davies** *Ultrafast Photodynamics of N3 Dye on TiO<sub>2</sub>*  
 UCL
40. Wed-PP-40 Wednesday, August 30 18:30 / 90 min Poster  
**Stanislav Čampelj** *Synthesis of Janus Ba-hexaferrite nanoplatelets with Pickering emulsions*  
 Jožef Stefan Institute
41. Wed-PP-41 Wednesday, August 30 18:30 / 90 min Poster  
**Aoshi Yamane** *Structures and charge transport properties of higher fullerene single-molecule junctions*  
 Tokyo Institute of Technology
42. Wed-PP-42 Wednesday, August 30 18:30 / 90 min Poster  
**Michał Kamiński** *Simultaneous real-time GISAXS and substrate curvature measurements probing the impact of nitrogen on early growth stages of Ag*  
 KIT IPS
43. Wed-PP-43 Wednesday, August 30 18:30 / 90 min Poster  
**Sima Alvani Alamdari** *Hybrid multifunctional magnetic nanoparticles as efficient materials for cancer cell thermo-ablation*  
 Institute of Organic Chemistry, Faculty of Chemistry, Lodz University of Technology
44. Wed-PP-44 Wednesday, August 30 18:30 / 90 min Poster  
**Raichel J. Abraham** *Self-Assembly of Metal Atoms, Confined by Organic On-Surface Synthesized Nanochains in UHV for Electrocatalysis*  
 University of Padova, Italy
45. Wed-PP-45 Wednesday, August 30 18:30 / 90 min Poster  
**Ireneusz Piwoński** *Preparation of advanced plasmonic nanostructures on semiconductor substrates for SERS and PIERS applications*  
 University of Lodz, Faculty of Chemistry, Department of Materials Technology and Chemistry

# Posters Wednesday

53 posters

- 
46. Wed-PP-46 Wednesday, August 30 18:30 / 90 min Poster  
**Péter Petrik**  
Centre for Energy Research  
*Investigation of combinatorial and periodic structures for interface monitoring by ellipsometry*
47. Wed-PP-47 Wednesday, August 30 18:30 / 90 min Poster  
**Krzysztof Warda**  
Solid State Physics Department, University of Łódź  
*An influence of the size effect on magnetization in ultra-thin films generated by very short laser pulse of high power.*
48. Wed-PP-48 Wednesday, August 30 18:30 / 90 min Poster  
**Govar Muayad Abdullah Abdullah**  
1 Affiliation 1 Dipartimento di Scienze Matematiche e Informatiche, Scienze Fisiche e Scienze della Terra (MIFT), Università di Messina Viale Ferdinando Stagno d'Alcontres, 31 98166 Messina, Italy ,  
 2 Affiliation 2 Department of Physics, College of Educa  
*Photocatalytic activity of TiO<sub>2</sub>-xNx nanostructures prepared by pulsed laser ablation in water.*
49. Wed-PP-49 Wednesday, August 30 18:30 / 90 min Poster  
**Shingo Takezawa**  
Tokyo University of Science  
*Development of high-temperature high-vacuum furnace and synthesis of layered ternary MAX phases for MXene*
50. Wed-PP-50 Wednesday, August 30 18:30 / 90 min Poster  
**Grzegorz Krasucki**  
Institute of Experimental Physics, Faculty of Physics, University of Warsaw  
*Magneto-phonon interaction in layered Cr<sub>2</sub>Ge<sub>2</sub>Te<sub>6</sub> ferromagnet*
51. Wed-PP-51 Wednesday, August 30 18:30 / 90 min Poster  
**Agata Zdyb**  
Department of Renewable Energy Engineering, Faculty of Environmental Engineering, Lublin University of Technology, Nadbystrzycka 40B, 20-618 Lublin, Poland  
*Metal-free Organic Dyes Adsorbed on the Surface of TiO<sub>2</sub> Nanoparticles as Sensitizers in Solar Cells*
52. Wed-PP-52 Wednesday, August 30 18:30 / 90 min Poster  
**Arkadiusz Foks**  
Jan Kochanowski University  
*Analysis of TiO<sub>2</sub> and Ti nanolayers irradiated with low-energy Xeq+ ions using XRR and GIXRF methods with synchrotron radiation excitation.*
53. Wed-PP-53 Wednesday, August 30 18:30 / 90 min Poster  
**Hafiz Muhammad Sohail**  
Linköping University  
*Binary (In-Pb) surface alloys on Si(111) and Ge(111): ARPES, LEED and STM results*