

Programme

Thursday 20 June 2024

Time	Room	Programme
8:30 am to 10:30 am	Auditorium	<p>Plenary Talks: Prof. Ian Gilmore (EPS Invited Lecture) and Prof. Zhaofeng Chen Session Chairs: Michael Bryant and Takao Katsura 8:30 am – 9:30 am Professor Ian Gilmore: OrbISIMS – high resolution mass spectrometry imaging with simultaneous chemical identification and localisation with high confidence 9:30 am – 10:30 am Zhaofeng Chen: Vacuum insulation panel and its application in the field of building</p>
9:00 am to 11:30 am	Theatre, Hall Q	VTC6 - Introduction to Mass Spectrometry and Residual Gas Analysis (RGA) Trainer: Graham Cooke
10.30 am to 11:00 am	Hall Q	Morning Break
11:00 am to 1:00 pm	Auditorium	<p>Catalysis and Electrocatalysis Including Single Atom and In Operando Studies 3 - ThPSA: ASS+SS+SE Session Chair: László Óvári Invited Talk: Charles Syke 11.00 am – 11:30 am Charles Sykes: Single-atom alloy catalysts: born in a vacuum, tested in reactors, and understood in silico 11:30 am - 11:45 am Dr. Norton West: Reducing Iridium loading within acidic oxygen evolution catalysts for Green Hydrogen Production 11:45 am - 12:00 pm Safouan Ziat: Selective hydrogenation of butadiene by single metallic atoms anchored on graphene-based catalysts 12:00 pm – 12:15 pm Dr Moyahabo Hellen Chuma: Computational Modelling of CO₂ Reduction to Ethylene over Doped Copper Catalysts 12:15 am – 12:30 pm Mr Aji Alexander: Polarity compensated Perovskite surfaces as a support for single-atom catalysis 12:30 pm - 12:45 pm Stefania Baronio: Dioxygen activation at a biomimetic 2D single metal atom catalyst beyond ultra-high vacuum 12:45 pm - 1:00 pm Dr. Katharina Doblhoff-Dier: Barriers for molecular dissociation: Can correlated electronic structure methods help?</p>
	King's Suite	<p>2D Materials and Van der Waals Heterostructures 2 and Ferroelectric Behaviour - ThPSK: ASS+SS+SE Session Chair: Pawel Kowalczyk Invited Talk: Norbert Koch 11:00 am - 11:30 am Norbert Koch: Energy level alignment and fundamental processes at interfaces between monolayer transition metal dichalcogenides and organic semiconductors 11.30 am - 11:45 am Dr Li Ma: Surface reactivity of Weyl semimetal Co₃Sn₂S₂ from vacuum to water splitting conditions 11:45 am - 12:00 pm Dr David Ward: Seeing hard and soft materials with atoms</p>

		<p>12:00 pm - 12:15 pm Philipp Seiler: Probing molecular diffusion on 2D materials with neutral matter</p> <p>12:15 pm - 12:30 pm Mr Huanyu Zhou: Ab initio Simulation of Molecular Crystal Regrowth from Solution</p> <p>12:30 pm - 12:45 pm Dominik Wrana: Ferroelectricity on as-cleaved perovskite surfaces</p> <p>12:45 pm - 1:00 pm Yasuo Cho: Heat Assisted Ferroelectric Reading for High Speed SNDM Ferroelectric Probe Data Storage</p>
	Queen's Suite - Dewar Room	<p>Spectroscopy and Microscopy of Nanostructures Modelling Nanostructure Properties - ThPSD: NS</p> <p>Session Chair: Jascha Repp</p> <p>Invited Talk: Grażyna Antczak</p> <p>11:00 am - 11:30 am Grażyna Antczak: Identification of chirality of the organic molecular domains in the reciprocal space</p> <p>11:30 am - 11:45 am Paul Philip Schmidt: Diffusion studies of Pb on Si using SFM and KPFM</p> <p>11:45 am - 12:00 am Philip Moriarty: Directing Jahn-Teller Dynamics via Submolecular Resolution Tunneling Spectroscopy</p> <p>12:00 pm - 12:15 pm Dr Michael Hunt: Langmuir-Hinshelwood Kinetics in Atmospheric Pressure CVD Growth of Few-Layer MoS₂ on Silicon</p> <p>12:15 pm - 12:30 pm Sparsh Tyagi: Identification of Metal Centers in a Bimetallic Ni/Co-HITP Metal-Organic Framework</p>
	Queen's Suite - Thomson Room	<p>MS-4: Vacuum Insulation Energy Technologies for Energy Savings - ThPST: MS (EM & VST)</p> <p>Session Chair: Saim Memon</p> <p>Feature Talks: Takao Katsura and Prabhu Selvara</p> <p>11:00 am - 11:15 am Katsuya Saito: Methods to Retrofit Existing Buildings to Net-Zero Energy Buildings and An Actual Insulation Example Using Vacuum Insulation Panels</p> <p>11:15 am - 11:30 am Takao Katsura: Double envelope vacuum insulation panel to contribute the long-term thermal insulation performance</p> <p>11:30 am - 11:45 am Prabhu Selvaraj: A new lead-free low-temperature hermetic edge seal for the fabrication of vacuum glazing</p> <p>11:45 am - 12:00 pm Saim Memon: Vacuum Insulated Energy Saving Materials for Net Zero Energy Buildings</p>
	Queen's Suite - Cockcroft Room	<p>Vacuum Metrology - ThPSC: VST</p> <p>Session Chairs: Martin Wuest, Carlo Scarcia</p> <p>Invited Talk: Matthias Bernien</p> <p>Feature Talk: Tom Rubin</p> <p>11:00 am - 11:30 am Matthias Bernien: Advances in traceable vacuum and outgassing rate measurements</p> <p>11:30 am - 11:45 am Dr. Jay Hendricks: The NIST on a Chip Program, Quantum Based Sensors for the Pressure, Vacuum, and More!</p> <p>11:45 am - 12:00 pm Martyn Green: Comparison of SRG transducer technology to Ion gauge technology in process applications</p> <p>12:00 pm - 12:20 pm Dr. Tom Rubin: Quantum-based realizations of the pascal in Europe</p>
11:45 am to 1:30 pm	Theatre, Hall Q	<p>VTC6 - Demonstration TOF Spectrometry</p> <p>Trainers: Sebastian Hüttli, Vanessa Kirchhoff, Tobias Fischer, VACOM</p>
1:00 pm to 2:00 pm	Hall Q	Lunch
2.00 pm to 6:00 pm	Hall Q	Excursions/Free Time