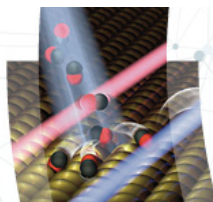


Bridging the gap from surface science to heterogeneous catalysis

20–22 April 2026 | London, UK



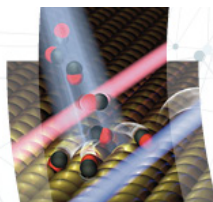
Faraday Discussions

Monday 20 April 2026 (all timings are BST)

11:00	Registration and refreshments
12:00	Lunch
12:45	Welcome and introductions Alec Wodtke and Matthias Scheffler, <i>Co-chairs of Scientific Committee</i>
12:55	Outline of Discussion format Konoya Das and Chloe Wallace, <i>Royal Society of Chemistry Publishing Editors</i>
13:00	Introductory lecture – Spiers Memorial Lecture (Session chair: Alec Wodtke) Jens Norskov <i>Technical University of Denmark, Denmark</i>
	Session 1: Chemical mechanisms and system analysis in heterogeneous catalysis (Session chair: Zdenek Dohnalek)
14:00	Microcalorimetric Quantification of Hydrogen Adsorption Thermodynamics in Water-Solvated Systems on Pt/C David Flaherty <i>Georgia Technical University, USA</i>
14:05	What can Raman spectroscopy really say about the adsorbed CO on roughened Cu electrodes in CO₂ electroreduction conditions? Anastassia Alexandrova <i>UCLA, USA</i>
14:10	Disentangling multistep kinetics by combining electrochemical Arrhenius analysis with micro-kinetic modelling Mathieu Lizée <i>Fritz-Haber Institut of the Max Planck Society, Germany</i>
14:15	Discussion
15:30	Refreshments
16:00	Critical Assessment of Theoretical Modelling of Single-Atom Catalysts Gianfranco Pacchioni <i>Università Milano-Bicocca, Italy</i>
16:05	Compensation effects between the apparent activation energy and pre-exponential factor in simple models of electrocatalytic hydrogen evolution Jan Fingerhut <i>Leiden University, Netherlands</i>
16:10	Thermophysical properties of adsorbates with beyond-DFT accuracy from DFT data through error cancellation Bjarne Kreitz <i>Georgia Institute of Technology, USA</i>
16:15	Discussion
17:30	Poster session and wine reception
19:30	Close

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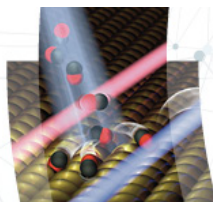
Faraday Discussions

Tuesday 21 April 2026 (all timings are BST)

	Session 1 (cont.): Chemical mechanisms and system analysis in heterogeneous catalysis (Session chair: Alec Wodtke)
09:00	Competing reaction pathways in decomposition of 2-propanol over V-doped Co₃O₄(111) model catalyst: a mechanistic study Swetlana Schaueremann <i>Kiel University, Germany</i>
09:05	The effect of adsorbate induced surface strain on oxygen island formation on platinum surfaces Florian Nitz <i>Georg-August University of Göttingen, Germany</i>
09:10	CO on a Rh/Fe₃O₄ single-atom catalyst: high-resolution infrared spectroscopy and near-ambient-pressure scanning tunnelling microscopy Gareth Parkinson <i>TU Wien, Austria</i>
09:15	Discussion
10:30	Refreshments
	Session 2: Impact of Artificial Intelligence on Heterogeneous Catalysis (Session chair: Judit Zador)
11:00	Rethinking Catalysis: Interpretable AI and Description of Real-World Conditions via Materials Genes Lucas Foppa <i>Fritz Haber Institute of the Max Planck Society and MS1P e.V., Germany</i>
11:05	Size-dependent kinetic restructuring of catalyst active sites: A MACE-APE study of fluxional Pd_n/MgO (n=3-11) clusters Patricia Poths <i>Fritz Haber Institute of the Max Planck Society, Germany</i>
11:10	Interpretable Bayesian Optimization for Catalyst Discovery Akhil S. Nair <i>Fritz-Haber Institute of the Max-Planck Society, Freie University Berlin, Germany</i>
11:15	Carbon Dioxide Hydrogenation on Copper and Nickel Catalysts via a Conformal Sampling Approach Alessandro Fortunelli <i>CNR, Italy</i>
11:20	Discussion
13:00	Lunch
	Session 2 (cont): Impact of Artificial Intelligence on Heterogeneous Catalysis (Session chair: Judit Zador)
14:00	A consistent dynamics view on nanoporous catalysts in action across length and time scales Veronique Van Speybroeck <i>Ghent University, Belgium</i>
14:05	Role of monodentate formate in product selectivity for CO₂ hydrogenation on Pd-based alloy catalysts Igor Kowalec <i>Cardiff University, UK</i>
14:10	An Interpretable Machine Learning Framework for Prediction of Adsorption Energies and Generative Design of Active Sites on Arbitrary Catalysts Matthew Johnson <i>Sandia National Laboratories, USA</i>
14:15	Discussion
15:30	Refreshments
	Session 3: New experimental methods for observing catalysts in action (Session chair: Beatriz Roldan-Cuenya)

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heterogeneous catalysis**

20–22 April 2026 | London, UK

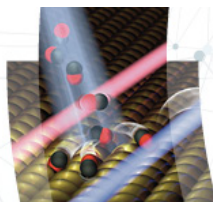


**Faraday
Discussions**

16:00	Catalytic hot-spots in CO oxidation resolved by operando electron microscopy Stig Helveg <i>Technical University of Denmark, Denmark</i>
16:05	Surface orientation-dependent electro-oxidation of a polycrystalline gold electrode Edvin Lundgren <i>Lund University, Sweden</i>
16:10	Structure-Controlled Sulfur Poisoning and Hydrogen-Induced Regeneration in Single Pd Nanoparticles Probed by Nanospectroscopy Elad Gross <i>The Hebrew University of Jerusalem, Israel</i>
16:15	Discussion
17:30	Close of sessions
18:30	Pre-dinner drinks
19:00	Conference dinner

Bridging the gap from surface science to heterogeneous catalysis

20–22 April 2026 | London, UK



Faraday Discussions

Wednesday 22 April 2026 (all timings are BST)

	Session 3 (cont.): New experimental methods for observing catalysts in action (Session chair: Beatriz Roldan-Cuenya)
09:00	The Ever-Evolving Active Site: Transformation of Single Atoms to Extended Structures during Rh-catalyzed Reverse Water-Gas Shift Reaction Simon Bare <i>SLAC, USA</i>
09:05	Operando XPS Studies of precisely size-selected Pd nano-catalysts for methane oxidation Georg Held <i>Diamond Light Source, UK</i>
09:10	Discussion
10:00	Refreshments
	Session 4: Rational Design of Dynamic and Self-repairing Active Sites (Session chair: Justin Hargreaves)
10:30	Evolution of Size-Selected Pt Cluster Catalysts on Prototypical Oxide Supports Barbara Lechner <i>TU Munich, Germany</i>
10:35	Developing the Science of Self-Healing Catalysts Abhaya Datye <i>University of New Mexico, USA</i>
10:40	Ionic Liquid Overlayers Stabilize Ligand-coordinated Oxide-supported Single-atom Pd Heterogeneous Catalysts for Partial Hydrogenation of Acetylene Steven Tait <i>Rensselaer Polytechnic Institute, USA</i>
10:45	Correlating binding energies of adsorbed CO and H on model surfaces with CO/H₂ selectivity from co-electrolysis of CO₂ and H₂O over copper-palladium bimetallic catalysts Jingguang Chen <i>Columbia University, USA</i>
10:50	Discussion
12:30	Concluding remarks lecture (Session chair: Matthias Scheffler) Simon Beaumont <i>Durham University, UK</i>
13:00	Acknowledgements
13:15	Close of meeting and lunch

If the presenting author of your paper has changed since abstract selection please email events@rsc.org. Please note that this is a draft programme and timings may change.