



Day 1

11:00	Registration and refreshments
12:00	Lunch
12:45	Welcome and introductions Brinkert & Romero-Calvo, <i>Chairs of Scientific Committee</i>
12:55	Outline of Discussion format <i>Royal Society of Chemistry Publishing Editors</i>
13:00	Introductory Lecture – Spiers Memorial Lecture (Session chair: Romero-Calvo) Michael Hecht <i>MIT, United States</i>
	Session 1 Interfacial processes in electrochemical energy conversion and storage devices I (Session chair: Fernandez Rivas/ Krug)
14:00	Electrocatalytic performance enhancement through coalescence-induced bubble dynamics: the case of the anode Detlef Lohse <i>University of Twente, Netherlands</i>
14:05	Quantification of the effect of ultrasound in PEM water electrolyser with operando neutron imaging and numerical simulations Stratis Trachanias <i>City St George's, University of London, UK</i>
14:10	Decoupling Bouyancy from Magnetic Forces Shows Enhanced Hydrogen Production in Microgravity Ömer Akay <i>ZARM - University of Bremen, Germany</i>
14:15	Discussion
15:30	Refreshments
16:00	Shear Flow-Driven Bubble Growth and Detachment under Microgravity Kerstin Eckert <i>Helmholtz-Zentrum Dresden-Rossendorf, Germany</i>
16:05	Characteristics of gas bubble discharge from different PTLs of PEM water electrolysis in microgravity Mizuo Muraki <i>Hokkaido University, Japan</i>
16:10	Bubble detachment from circular cavities and flat surfaces Ianto Cannon <i>University of Bremen, Germany</i>
16:15	Discussion
17:30	Lightning presentations (by invitation of the Scientific Committee)
18:00	Poster session and wine reception
19:30	Dinner



Day 2

	Session 2 Interfacial processes in electrochemical energy conversion and storage devices II (Session chair: Matsushima)
09:00	Theoretical and Experimental Analysis of Water Mass Transport in Cathode-Vapour-Feed Electrolysers Sören Heizmann <i>Technical University of Munich, Germany</i>
09:05	Coupling Phenomena between Mass Transfer and Microstructural Evolution in Electrochemical Devices Yasuhiro Fukunaka <i>Kyoto University, Japan</i>
09:10	Effects of microgravity on the nucleation and the growth of electrocatalyst nanoparticles Camilla Tossi <i>ZARM University of Bremen, Germany</i>
09:15	Discussion
10:30	Refreshments
11:00	Bubble-regulated resistance evolution in microgravity electrolysis Becker <i>University of Bremen, Germany</i>
11:05	Impact of Ferrofluid-Induced Bubble Removal on Two-Electrode Plate-Electrode Water Electrolysis Ryuto Somiya <i>Nagoya institute of Technology, Japan</i>
11:10	Bubble dynamics on mesh electrodes using novel silicon mesh-analogues Kensei Tsuburaya <i>The University of Tokyo, Japan</i>
11:15	Discussion
12:30	Lunch
	Session 3 Electrolyser designs for terrestrial and space systems I (Session chair: Romero-Calvo)
13:30	The Incidence of Bubble Formation on the Cathode and Anode of a High-Performing, 'Bubble-Free' Capillary-Fed Water Electrolysis Cell at Commercial Operating Temperature Gerry Swiegers <i>University of Wollongong, Australia</i>
13:35	Modelling and simulation of species transport in capillary-fed electrolysis cells Dominik Krug <i>RWTH Aachen, Germany</i>
13:40	Enabling Efficient Water Electrolysis in Reduced Gravity: Performance Analysis of a Gas Diffusion Electrode Zhiyuan Chen <i>VITO, Belgium</i>
13:50	Discussion
15:00	Refreshments
15:30	Static Vapor Feed Electrolyzer Enabling Oxygen Generation without External Phase Separation in Microgravity Zachary Lynn <i>Giner Labs, United States</i>
15:35	Passive Magnetohydrodynamic Bubble Removal for Water Electrolysis Across Gravity Regimes Theo St Francis <i>Georgia Tech, United States</i>
15:40	Fundamental Materials Engineering of Robust Solid Oxide Electrolysis Cells for Terrestrial and Space Applications

**Bridging electrochemical devices
across Earth and space applications**

2-4 November 2026 | London, UK



**Faraday
Discussions**

	Robert Price <i>University of St Andrews, UK</i>
15:45	Discussion
17:00	Close of sessions
18:30	Pre-dinner drinks
19:00	Conference dinner



Day 3

	Session 4 Electrolyser designs for terrestrial and space systems II (Session chair: Brinkert)
09:00	Electrochemical CO₂ Reduction to CO for In-Situ Resource Utilisation on Mars Paulina Govea-Alvarez <i>VITO and Ghent University, Belgium</i>
09:05	Designing electrochemical reactors for long-term space missions Akash Raman <i>ZARM—Center of Applied Space Technology and Microgravity, Germany</i>
09:10	TBC Amy Marschilok <i>Stony Brook University, United States</i>
09:15	Discussion
10:30	Refreshments
	Session 5 Innovations in battery technologies for space applications (Session chair: Matsushima)
11:00	Anode-Free LiNiO₂ Battery: A High Energy Density, Low-Cost Cell Design Louis Piper <i>University of Warwick, UK</i>
11:05	Probing pressure-dependent degradation and safety limits during fast charging of lithium-ion batteries Jinwen Weng <i>Imperial College London, UK</i>
11:10	High-voltage gel polymer electrolyte integrated laser-induced graphene flexible micro-supercapacitors for wearable and sustainable aerospace electronics Apurba Ray <i>German Aerospace Center (DLR), Cologne, Germany</i>
11:15	Discussion
12:30	Concluding Remarks Lecture (Session chair: Matsushima) Hitoshi Naito <i>Japan Aerospace Exploration Agency (JAXA), Japan</i>
13:00	Acknowledgements
13:15	Close of meeting and lunch

Presenting authors are indicated in the programme by an underline. The affiliation is for the presenting author. 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.