

Materials for energy storage and conversion

Joint Chemical Science RSC-CSJ symposium

31 October – 1 November 2024
London, UK and online

Thursday 31 October (timings are GMT)

09.00	Registration and refreshments
10:00	Welcoming remarks Helen Pain, Chief Executive Royal Society of Chemistry
	Welcome on behalf of Chemical Society of Japan Mitsuo Sawamoto, Executive Director, The Chemical Society of Japan
	Introduction May Copsey, Executive Editor, <i>Chemical Science</i>
	Session 1: Materials for energy RSC-CSJ session Introduction and chair: Andrew Cooper, University of Liverpool, Editor-in-Chief, <i>Chemical Science</i>
10:20	Rational design of liquid electrolytes for rechargeable batteries Yuki Yamada <i>SANKEN, Osaka University</i>
10:55	Understanding electrode reaction processes through operando vibrational spectroscopy of interfaces and interphases Laurence Hardwick <i>University of Liverpool</i>
11:30	Development of mesoporous carbon for fuel cell application Akari Hayashi <i>Kyushu University</i>
12:05	Lunch and posters
	Session 2 (Session chair: Sebastian Peter)
13:30	Proton-coupled electrochemistry of metal oxides: from insertion to interfacial phenomena Veronica Augustyn <i>NC State University, USA</i>
14:05	The chemistry of self-assembling molecules as selective contacts in molecular solar cells Emilio Palomares <i>ICIQ, Spain</i>
14:40	Developing photoelectrochemical water splitting devices - from understanding charge carrier behaviour to testing prototypes in the field Andreas Kafizas <i>Imperial College, UK</i>
15:15	Refreshments
	Session 3 (Session chair: Emilio Palomares)
15:45	Carbon and water recycling for sustainable energy: A journey from fundamental chemistry to green technologies Sebastian Peter <i>JNCASR, India</i>
16:20	Flash poster presentations (by invitation) – introduced by May Copsey
16:45	Poster session
18:45	Close of sessions

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	Session 4: Materials for energy RSC-CSJ Session (Session chair: Vincent Artero)
09:05	Nanocatalyst systems for electrochemical upgrading of ubiquitous chemicals Miho Yamauchi <i>Kyushu University, Japan</i>
09:40	Metal halide perovskites for photovoltaic applications Laura Herz <i>University of Oxford, UK</i>
10:15	Organic materials at interfaces for highly efficient perovskite photovoltaics Atsushi Wakamiya <i>Kyoto University, Japan</i>
10:50	Molecular engineering for sustainable intelligence Marina Freitag <i>Newcastle University, UK</i>
11:25	Refreshments
	Session 5 (Session chair: Laura Herz)
11:55	Flexible perovskite solar cells and modules: from fabrication to examples of possible applications Francesca Brunetti <i>University of Rome, Italy</i>
12:30	Project ViTAL: Decarbonise power using integrated solar technology Libby Gibson <i>Newcastle University</i>
13:05	Lunch (and photo)
14:15	Publishing session <ul style="list-style-type: none">• Introduction – May Copsey• Associate Editor panel discussion (<i>Chemical Science</i>, <i>Journal of Materials Chemistry A</i>, <i>Sustainable Energy & Fuels</i>)• RSC Books - Merlin Fox
	Session 6 (Session chair: Marina Freitag)
15:15	Stabilize transition metal chalcogenides as novel intercalation materials by electrolyte engineering approach Alexis Grimaud <i>Boston College, USA</i>
15:50	Light-driven proton-coupled electron transfer reactions at functionalized silicon photoelectrodes for solar fuel production Jillian Dempsey <i>UNC Chapel Hill, USA</i>
16:25	Poster prizes and concluding remarks
16:45	Close of sessions