

2026 E-MRS Spring Symposium (Strasbourg, France)

Interdisciplinary Approaches in Materials Science for Addressing Energy/Environmental Challenges (Tentative Program)

Plenary talk: 35 min +10 min (Q&A)=45 min
 Invited talk: 25 min + 5 min (Q&A)=30 min

Day 1- May. 25th 2026 (Mon.)									
Shin-ichi Orimo (AIMR, Tohoku University)									
	Presenter		Tentative title	Chair					
13:30-13:35	Opening speech								
13:35-14:20	Plenary talk	P1-A. Züttel (EPFL, Switzerland)	The role of hydrogen in the global energy transition	S. Orimo					
14:20-14:50	Invited talk	I1-P. Trtik (PSI, Switzerland)	Neutron imaging - an indispensable tool for research addressing energy/environmental challenges						
14:50-15:35	Plenary talk	P2-M. Hirscher(MPI-IS, Germany)	25 Years of Metal-Organic Frameworks for Cryo-Adsorption Hydrogen Storage						
15:35-16:05	Invited talk	I2-E. J. Cheng (CRC-MS, Tohoku University, Japan)	Novel lithium-conducting phosphate solid electrolytes						
16:05-16:30	Group photo and Coffee break								
16:30-18:30	Poster Session								
Day 2-May 26th 2026 (Tue.)									
Kick-off meeting for Empa-AIMR JRC									
9:00-9:15	Opening speech		Introduction of Empa-AIMR JRC, S. Orimo and A. Borgschulte						
9:15-10:00	Plenary talk	P3-A. Kuhn (ISM, University of Bordeaux, France)	Unconventional approaches for electrochemical energy conversion	R. Oda					
10:00-10:30	Coffee break								
10:30-11:00	Invited talk	I3-C. Pistidda (Hereon, Geesthacht, Germany)	Recycling materials for complex material combination storage materials	R. Oda					
11:00-11:30	Invited talk	I4-H. Li (AIMR, Tohoku University, Japan)	Turing Scheme for Materials and DigCat 4.0 – An Intelligent Digital Platform Powered by Ultra-Large-Scale Exp + Comput Data						
11:30-12:00	Invited talk	I5-C. Zlotea (Univ Paris Est Creteil, CNRS, ICMPE, France)	Tuning functional properties of high entropy hydrides						
12:00-13:30	Lunch								
13:30-14:00	Invited talk	I6-A. J. Knorpp (Empa, Switzerland)	High-Entropy Oxides as Tailorable Catalysts for CO ₂ Conversion	A. Pundt					
14:00-14:30	Invited talk	I7-S. Korneychuk (KIT, Germany)	Local Hydrogen detection by STEM-EELS						
14:30-15:00	Invited talk	I8-S. Wagner (KIT, Germany)	Impact of constraint conditions on M-H thermodynamic properties						
15:00-15:30	Invited talk	I9-K. Akagi (AIMR, Tohoku University, Japan)	Structural analysis and design of energy related materials based on persistent homology						
15:30-16:00	Invited talk	I10-H. Kakinuma (IMR, Tohoku University)	Advanced hydrogen sensors for real-time 2D visualization of hydrogen diffusion in metals						
16:00-16:30	Coffee break								
16:30-18:30	Booth exhibition								
Day 3- May. 27th 2025(Wed.)									
8:30-9:15	Plenary talk	P4-H. Yabu (AIMR, Tohoku University, Japan)	Biomass-derived electrocatalysts for energy/material conversion	A. Borgschulte					
9:15-9:45	Invited talk	I11-Y. Zhang (CRC-MS, Tohoku University, Japan)	Facile Preparation of High Temperature, Nanostructured Polymeric Membrane Fuel Cells with High Phosphoric Acid Retention from Plant-derived Soybean Oil						
9:45-10:15	Invited talk	I12- H. Nishihara (AIMR, Tohoku University, Japan)	Multiscale structural design in carbon materials: Unlocking new frontiers in energy, catalysis, and biology						
10:15-10:30	Coffee break								
10:30-11:00	Invited talk	I13-A. Hirano (AIMR, Tohoku University, Japan)	Synthetic Neurosystems: Rebuilding and Analyzing Neuronal Circuits and Molecules	A. Borgschulte					
11:00-11:30	Invited talk	I14-S. Deebansok (CRC-MS, Tohoku University, Japan)	In-situ Nanoscale Imaging of Electrochemical Interfaces for Energy Storage Applications						
11:30-12:00	Invited talk	I15-H. Ando (AIMR, Tohoku University, Japan)	Mathematical Foundations for Carbon-Neutral Mobility Systems: Unleashing the Potential of Harvested Reservoir Computing						
12:00-12:10	Closing (A. Borgschulte; A. Pundt)								