



2026 Fall Meeting

Symposium X

E-MRS/C-MRS Joint symposium on critical applications of sustainable materials in reducing environmental impact and promoting the circular economy

Sponsors



ELSEVIER



E-MRS / C-MRS Bilateral High Level Forum on

Critical Applications of Sustainable Materials in Reducing Environmental Impact and Promoting the Circular Economy

14–15. September 2026

Venue

Faculty of Materials Science & Engineering
Warsaw University of Technology

Organisers

Sanjay MATHUR, University of Cologne (DE)
Gabriella DI CARLO, CNR - ISMN (IT)
Hyacinthe RANDRIAMAHAZAKA, Université Paris Cité (FR)
Yuzhong WANG, Sichuan University (CN)
Meifang ZHU, Donghua University (CN)

Monday, 14 September

9:20 Welcome Remarks: Sanjay MATHUR, Guangxian Li

Session 1 (Chair: Sanjay Mathur)

9:30 Xun CAO, Chinese Academy of Sciences (CN): Adaptive Radiative Interfaces for Sustainable Thermal Management - From Smart Windows to Smart Thermal-Control Skins

10:00 Alberto VOMIERO, Luleå University of Technology (SE): Advanced composites for solar energy harvesting

10:30 Coffee Break

Session 2 (Chair: Guangxian Li)

11:00 Wenyi HUO, National Centre for Nuclear Research (PL): From Extreme Environments to Clean Energy: High-Entropy Materials Driving the Circular Economy

11:30 Emanuel IONESCU, TU Wien (AT): Compositional Complexity as a Key Enabler of Sustainable Functional Materials and the Circular Economy

12:00 Jyh-Wei LEE, Ming Chi University of Technology (TW): Development of high entropy alloy thin films for harsh-environment applications

12:30 Lunch Break

Session 3 (Chair: Thomas Fischer)

14:00 Yu-Zhong WANG, Sichuan University (CN): Chemical Recycling and Upcycling of Polymeric Materials

14:30 Souad AMMAR, Université Paris Cité, (FR): Enhancing the sustainability of the permanent magnet production cycle by valorizing waste materials as alternative raw sources: from Fe to NdFeB magnets

15:00 Meifang ZHU, Donghua University (CN): Key Applications of Sustainable Materials in Reducing Environmental Impact and Promoting Circular Economy

15:30 Coffee Break

Session 4 (Chair: Emanuel Ionescu)

16:00 Jing-Feng LI, Tsinghua University (CN): Lead-free piezoelectric ceramics based on (K,Na)NbO₃: from bulk materials to thin films

16:30 Thomas FISCHER, University of Cologne (DE): External Fields as a Tool for Materials Design: From Molecular Precursors to Functional Thin Films and Ressource Recovery

17:00 Sen YANG, Xi'an Jiaotong University (CN): Advanced Design Strategies for Stimuli-Responsive Smart Window Materials

19:00 Dinner

Tuesday, 15 September

Session 5 (Chair: Rosaria Ciriminna)

9:00 Weifei FU, Zhejiang University-Hangzhou (CN): Scalable Organic Solar Modules: Mitigating Efficiency Loss during Upscaling and Roll-to-Roll Manufacturing

9:30 Yogendra MISHRA, South Denmark University (DK): Tetrapods based Advanced Materials for Advanced Technologies

10:00 Biswanath DUTTA, GenAI in Scientific Publishing: Recent Developments & Future Directions, Elsevier B.V. (NL)

10:30 Coffee Break

Session 6 (Chair: Yogendra Mishra)

11:00 Rosaria CIRIMINNA, Istituto per lo Studio dei Materiali Nanostrutturati, CNR (IT): CytoCell Nanocellulose Enhanced Membranes for Green Hydrogen

11:30 Wei HUANG, Northwestern Polytechnical University, Chengdu (CN): Flexible Electronics for Future Disruptive Technologies

12:00 Amrita JAIN, Polish Academy of Science (PL): Upcycled Bio-Derived Carbons and Bio-Based Frameworks for Sustainable Electrochemical Energy Storage

12:30 Lunch Break

Session 7 (Chair: Gabriella Di Carlo)

14:00 Xiaogang LIU, National University of Singapore (SG): Beyond the Spectrum: Nanocrystals for Light Manipulation

14:30 Maria BASSO, University of Padua (IT): Nanostructured Metal Oxide Thin Films by Laser Processing for Energy Applications

15:00 Raghvendra YADAV, Tomas Bata University in Zlín (CZ): Hybrid Nanocomposites for High-Performance Electromagnetic Interference Shielding and Microwave Absorption – From Flexible Polymers to Structural Cement

15:30 Concluding Remarks

