



European Materials Research Society

2026 Spring Meeting

May 25 - 29
Strasbourg Convention Centre

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SYMPOSIUM X

Cultural Heritage: materials, methods, practice and innovation

Oral sessions : [LEICESTER - FIRST FLOOR](#)

Poster sessions : [ETOILE - FIRST FLOOR](#)

Symposium Organizers:

[Giuseppina PADELETTI](#), CNR - ISMN, Italy

[João Pedro VEIGA](#) (Main organizer), Universidade Nova de Lisboa, Portugal

[Koen JANSSENS](#), University of Antwerp, Belgium

[Wenqiang DONG](#), Northwestern Polytechnical University, China

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Monday May 25
X01 Session 1

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09:00	851	Application of hyperspectral scanning and imaging techniques across diverse spectral ranges for chemical mapping of materials to support multidisciplinary dialogue for the study and conservation of works of art CARTECHINI Laura (Invited)
09:30	1208	Machine Learning and Comparative Analysis: Predictive Models for Provenance Tracing and Ink Authentication in Cultural Heritage. CHIRIU Daniele
09:45	2946	Metal Artifact Reduction in X-Ray CT Images of Cultural Relics Using Structure-Complexity-Driven Deep Generative Models HUANG Jing
10:00	2797	Lightweight multispectral optical microscopy imaging system for rapid extraction of cultural relic map information TANG Xingjia

Monday May 25
X02 Session 2

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10:30	2861	Colloidal Chemistry in the Preservation of Monuments and Works of Art SZAFRAN Mikolaj (Invited)
11:00	2372	In-situ evaluation of consolidants and coatings on historic building materials: NUK case study (Slovenia) ZARKOVIC Zala
11:15	2870	Synthesis of Nanolime via Anion-Exchange for the Consolidation and Weathering Resistance of Sandstone Grottoes ZHANG Wengang
11:30	359	Bio-inspired amphiphilic SiO ₂ nanoparticles-based multi-functional superhydrophobic protective coatings for stone artworks CAO Yijian
11:45	2844	Development characteristics of the scaling off on earthen sites under the spatio-temporal dimensions DU Yumin

Monday May 25
X03 Session 3

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14:30	3382	Sustainable biopolymer-based materials for the protection of metal artworks: from design to museum application DI CARLO Gabriella (Invited)
15:00	3138	Analyses of microstructure and corrosion of gilded silver threads ZYWITZKI Olaf

15:15	1565	Graphene oxide based coatings for the protection of heritage copper alloys: influence of deposition strategy and material properties. ABDELMOHSEN Amir Moustafa Rezk
15:30	274	Recognition of copper mirror corrosion and unmixing of mixed pixels based on super pixel segmentation for hyperspectral imaging data Qu Liang
15:45	98	Fiber optics reflectance spectroscopy (FORS) combined with machine learning methods for identifying "bronze disease" induced corrosion products on ancient bronze artifacts LIU Wei

Monday May 25
X04 Joint Session X/F

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16:30	1002	New challenges for cultural heritage preservation facing the climate crisis PALLOT FROSSARD Isabelle(Invited)
17:00	1975	Energy challenges from a materials perspective ROSEI Federico (Invited)

Tuesday May 26
X05 Session 5

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08:30	1013	ATLAS: Studying symbiotic scenarios linking Heritage assets and green areas to prepare Andalusian Historic Cities to face Climate Changes ORTIZ Pilar (Invited)
09:00	1011	Emergency preparedness in Cultural Heritage ORTIZ Rocio
09:30	799	A New Way to Study Historical Pigments: Insights from 3D Fluorescence Mapping PORCU Stefania
09:45	62	Effect of NaCl solutions on the discoloration of azurite pigments MA Xiao

Tuesday May 26
X06 Session 6

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10:30	1706	A Cu, Fe, Ag- micro XANES study on the formation mechanisms of Islamic polychrome lusters PRADELL Trinitat (Invited)
11:00	2594	In situ near-infrared spectroscopy of prehistoric black drawings: insights into biochar structure and archaeological implications BOULARD Yohan
11:15	1602	Effect of Graphene Oxide as an innovative additive on the microstructure of NHL restoration mortars CONTRERAS MARTINEZ Maria Dolores

- 11:30 64 Using nanoindentation to study the aging of cellulose acetate in cinematographic films
CORDILL Megan
- 11:45 324 Analysis and Research on the Window Glass of Lingzhao Xuan in the Forbidden City
DUAN Hongying

Tuesday May 26
X07 Session 7

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- 13:45 2320 Pigment for paintings and reaction intermediate for opacified glazes: re-exploring PbSnO₃
WALLEZ Gilles (Invited)
- 14:15 1318 How humidity alters blue ultramarine's chemistry in Henri Matisse's gouaches
TRAVERSON Ayoub
- 14:30 1848 From Colour to Composition: Investigating al-Andalus Engobe Variability at the Castle of Palmela (Setúbal, Portugal)
SARAIVA Ana S.
- 14:45 1810 Preliminary Study on the Adhesive Performance of Multi-Source Starches for Silicate Cultural Relics
LUO Yanbing
- 15:00 2437 Development of a New-Generation Multifunctional Biopolymer-Based ZnO/CuO Nanostructured Coating for the Protection of Cultural Heritage
DAS Karabi
- 15:15 656 Smart Packaging Solution: Na₂B₈O₁₃·4H₂O-Loaded QCS/PAM Double-Network Hydrogel for Microbial Control in Paper Heritage Preservation
JING Cao
- 15:30 657 Research on the Antibacterial Mechanism of Environmentally Adaptive Anti-Mold Protein Coating Materials for Paper Cultural Relics
CAO Jing
- 15:45 1384 Depth-programmable and multifunctional vapor-phase protection for paper artifacts
WANG Xingzhi
- 16:00 2688 Quantitative Analysis of Paintings on Paper Using Fiber Optics Reflectance Spectroscopy
VICENTE ROJAS Ricardo Pedro

Tuesday May 26
XPO2 Poster session 1

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- 16:30 01_1524 Combined EPR, Raman and synchrotron XANES study of photo-induced processes in blue ultramarine gouaches in Henri Matisse cut-outs
TRAVERSON Ayoub
- 16:30 02_1757 Assessing the suitability of portable X-Ray Fluorescence for the analysis of archeological artefacts through a comparative study with Proton Induced X-Ray Emission: a case study of ceramics from Tyre
TABBAL Malek

- 16:30 03_2623 Reading Historic Glazes In-Situ: Portable Multianalytical Characterisation of Portuguese Azulejos and Iznik Tiles
VEIGA Joao
- 16:30 04_2941 Study on the Deterioration Effects of Different Environmental Factors on the Properties of Palm Leaf Manuscripts
ZHANG Wenjie
- 16:30 05_802 Advanced Multi-Analytical Approach for the Diagnostic Assessment of Earthen Wall Paintings: The Case of the Templo Pintado
PORCU Stefania
- 16:30 06_848 Deterioration Mechanism Study of the Architectural Glazed Components Preserved in the Palace Museum
ZHU Meng