

## TIMETABLE

	07 May	08 May	09 May	10 May	11 May	12 May
08h30		Registration				
09h00		Opening session	Invited speaker	Invited speaker	Invited speaker	
09h20		Invited speaker				
10h00		OP	OP	OP	OP	Visit to MNAz
10h30						
11h00		Coffee break	Coffee break	Coffee break	Coffee break	
11h30		OP	OP	OP	OP	
12h30						
13h00		Lunch break	Lunch break	Lunch break	Lunch break	
13h30						
14h00	Registration					
14h30		Invited speaker	Invited speaker	Invited speaker	Invited speaker	
15h00						
16h00		OP	OP & CS	OP	OP	
16h30		Coffee break	Coffee break	Coffee break	Coffee break	
17h00	Welcome reception	Poster Session 1	Poster Session 2	Poster Session 3	Poster Session 4	
18h00						
18h30					Closing session	
20h00				Conference dinner		

OP Oral Presentations

CS Commercial session

## THEMATIC SESSIONS

SESSION A	ANALYTICAL METHODS	PAGE	2   5   7   10   11
SESSION B	CERAMICS	PAGE	3
SESSION C	GLASS AND RELATED MATERIALS	PAGE	3   7
SESSION D	SUSTAINABLE CONSERVATION	PAGE	3   12
SESSION E	ARCHAEOLOGICAL MATERIALS AND SITES	PAGE	12
SESSION F	LEATHER	PAGE	3
SESSION G	EASEL PAINTINGS	PAGE	3   4
SESSION H	TEXTILES	PAGE	4
SESSION I	GRAPHIC DOCUMENTS	PAGE	6   9
SESSION J	PIGMENTS AND DYES	PAGE	8
SESSION K	VARNISHES AND RESINS	PAGE	8
SESSION L	MURAL PAINTINGS	PAGE	9
SESSION M	POLYMERS	PAGE	10
SESSION N	SCIENTIFIC AND TECHNOLOGICAL HERITAGE	PAGE	10
SESSION O	MODERN MATERIALS AND CONTEMPORARY ART	PAGE	10
SESSION P	METALS	PAGE	11
SESSION Q	PAINTS	PAGE	11
SESSION R	STONE	PAGE	12
SESSION S	WOOD	PAGE	13

## ORAL COMMUNICATIONS | PROGRAMME

## SUNDAY 7TH | BUILDING C3 - HALL

14h00	Registration
17h00	Welcome reception
18h00	

## MONDAY 8TH | BUILDING C3 - AUDITORIUM 3.2.14

08h30	Registration
09h00	Opening Session

## SESSION A - ANALYTICAL METHODS | CHAIRED BY KOEN JANSSENS

09h20		António Candeias <i>Non-invasive and imaging techniques for the study and conservation of cultural heritage - the HERCULES Lab experience</i>
10h00	441	Sebastian Schöder, Katharina Müller, Emilie Bérard, Angélique Rouquié, Laurent Tranchant, Pierre Gueriau, Mathieu Thoury, Serge Cohen and Loïc Bertrand <i>First results from the PUMA synchrotron beamline, dedicated to heritage studies</i>
10h15	1082	Maria Eugenia Villafane, Nathan Daly, Christine Kimbriel, Catherine Higgitt and Pier Luigi Dragotti <i>Registration of multimodal images of artworks: an approach based on mutual information</i>
10h30	891	Giuseppe Capobianco, Lucilla Pronti, Martina Romani, Simone Di Filippo, Giuseppe Bonifazi, Mariangela Cestelli Guidi and Silvia Serranti <i>Multi-sensor imaging coupled with chemometric techniques for the characterization of pictorial materials</i>
11h00		Coffee break

## SESSION A - ANALYTICAL METHODS | CHAIRED BY ANTÓNIO CANDEIAS

11h30	1597	Kalliopi Tsampa, Effrosyni Androulakaki, Panagiotis Assiouras, Pawel Wrobel and Andreas Germanos Karydas <i>Development and characterization of a modular MA-XRF spectrometer for Cultural Heritage applications</i>
11h45	1883	Francesca Assunta Pisu, Stefania Porcu, Pier Carlo Ricci, Carlo Maria Carbonaro, Carla Cannas, Valentina Mameli, Rita Teresa Melis, Stefano Naitza and Daniele Chiriu <i>Innovative method for provenance study: a new algorithm based on observables from high-resolution Raman spectra</i>
12h00	1403	Francesco Paolo Romano, Costanza Miliani, Claudia Caliri, Claudia Giuseppina Fatuzzo, Giulia Maria Privitera, Eva Luna Ravan, Dario Zappalà and Zdenek Preisler <i>A novel MA-XRD/MA-XRF scanner for pigment-specific mapping of paintings</i>
12h15	6005	Candida Moffa, Fernando Jr. Piamonte Magboo, Luigi Palumbo, Anna Candida Felici and Massimo Petrarca <i>Non-invasive identification of coloring materials based on terahertz continuous-waves (THz-CW) spectroscopy</i>
12h30	6281	Claudia Conti, Alessandra Botteon, Alberto Lux, Marco Realini, Pavel Matousek and Pietro Strobbia <i>Evolution of Raman Spectroscopy for Cultural Heritage: advanced prototypes</i>
13h00		Lunch break (Building C7)

## SESSION A - ANALYTICAL METHODS | CHAIRED BY FRANCESCO GRAZZI

14h30		Matthias Alfeld <i>Integrated Multi-modal approaches for Imaging of Cultural Heritage Objects</i>
15h00	6459	Giulia Maruccci, Antonella Scherillo and Daniela Di Martino <i>Advances in neutron resonance absorption imaging for material characterisation</i>
15h15	6566	Eugenia Geddes da Filicaia, David Peggie and Richard Evershed <i>Direct inlet pyrolysis GC-QToF-MS for the study of organic materials in cultural heritage</i>
15h30	7153	Claudia Caliri, Claudia Giuseppina Fatuzzo, Danilo Paolo Pavone, Giulia Maria Privitera, Eva Luna Ravan, Zdenek Preisler, Costanza Miliani and Francesco Paolo Romano <i>A novel mobile MA-XRF scanner based on a hodoscopic multi-detector system for application in the cultural heritage field</i>
15h45	7475	Loïc Bertrand, Sebastian Schoeder, Ineke Joosten, Samuel Webb, Mathieu Thoury, Thomas Calligaro, Étienne Anheim and Aliz Simon <i>Ten years of practical advances towards safer analysis of heritage samples and objects</i>
16h00	7802	Matteo Cataldo, Adrian D. Hillier, Katsu Ishida, Massimiliano Clemenza, Oliviero Cremonesi, Francesco Grazzi and Simone Porcinai <i>Using negative muons for the characterization of thin layers in cultural heritage science</i>
16h15	9580	Vasiliki Kantarelou, Timofej Chagovets, Nina Gamaiunova, Maksym Tryus, Filip Grepl, Francesco Schillaci, Daniele Margarone and Lorenzo Giuffrida <i>Optimization of a laser-driven X-ray source for X-ray Fluorescence applications on Cultural Heritage</i>
16h30		Coffee break
17h00		Poster session 1
18h30		

**MONDAY 8TH | BUILDING C3 - AUDITORIUM 3.2.15**

**SESSION B - CERAMICS | CHAIRED BY MARCIA RIZZUTTO**

- 10h00** 2340 Weronika Patrycja Polańska, Lavinia de Ferri, Knut Ivar Austvoll and Calin Constantin Steindal  
*A multi-method approach to Bronze Age ceramics from Hunn, Eastern Norway*
- 10h15** 4502 Luís Filipe Vieira Ferreira, Isabel Ferreira Machado, Manuel Francisco Costa Pereira and Celso Mangucci  
*Archaeometry of 16th to 18th c. tiles produced in the Lisbon area*
- 10h30** 5808 Mario Bandiera, Umberto Veronesi, Marta Manso, Alexandre Pais, Lurdes Esteves, Andrea Ruivo, Marcia Vilarigues and Susana Coentro  
*Unveiling the colours of the 17th-18th century azulejos using a multi-analytical non-invasive approach*
- 11h00** Coffee break

**SESSION B + C - CERAMICS + GLASS AND RELATED MATERIALS | CHAIRED BY FRANCESCA ROSI**

- 11h30** 6445 Paolo d'Imporzano, Haske Reiling, Jolanda van Iperen, Isabelle Garachon, Katrien Keune and Gareth Davies  
*Lead Isotope Analysis of Delftware via Portable Laser Ablation*
- 11h45** 7645 David Butti, Claudia Caliri, Brenda Doherty, Davide Domenici, Giulia Privitera, Donata Magrini, Costanza Miliani, Loretta Paderni, Aldo Romani, Francesco Paolo Romano, Francesca Sabatini and Francesca Rosi  
*Mesoamerican Mosaics from the collection of Museo delle Civiltà (MUCIV): A Multi-analytical scientific study*
- 12h00** 9268 Maria Labate, Maurizio Aceto, Mauro Palumbo, Lorenza Operti and Angelo Agostino  
*Predictions by pXRF raw spectra: classification of medieval enamels by machine learning*
- 12h15** 4756 George Karagiannis, Theodoros Karagiannis, Evdoxios Mimis, Thomas Mafredas, Chrysafenia Pardalidou, Mattheos Koutsoumanis and Emmanuel Karagiannis  
*A holistic in-situ non-destructive approach for supporting the conservation on archaeological sites. The case of conservation of mosaics from ancient Plotinopoli, Didymoteicho, Greece.*
- 13h00** Lunch break (Building C7)

**SESSION D + E + F - SUSTAINABLE CONSERVATION + ARCHAEOLOGICAL MATERIALS + LEATHER**

**CHAIRED BY ILARIA COSTANTINI**

- 15h00** 1053 Martina Romani, Simone Lemmers, Lucilla Pronti, Gihan Kamel, Kirsi Lorentz and Mariangela Cellisti Guidi  
*Optimization of the methodology for the FT-IR spectroscopic characterization of archaeological human long bone samples*
- 15h15** 1263 Laura Giuliani, Chiara Genova, Valeria Stagno, Alessandro Ciccola, Silvia Capuani and Gabriele Favero  
*HVPD-hydrogel as a smart cleaning solution for removal of corrosion patinas on carbonate stone materials*
- 15h30** 2718 Noemi Proietti, Valeria Di Tullio, Cristina Carsote, Iliaria Quaratesi and Elena Badea  
*NMR spectroscopy and micro-analytical techniques for studying the corami (gilt and painted leather) wall coverings from Chigi Palace, Italy*
- 15h45** 3545 Federica Nardella, Marco Mattonai, Riccardo Andreozzi and Erika Ribechini  
*Long-lasting flavor compounds of myrtle and helichrysum from ancient Egyptian tombs: a study by multi-shot analytical pyrolysis*
- 16h00** 2283 Mingrui Zhang, Zonghui Zhang, Fang Wang, Jie Liu, Yong Lei and Keyong Tang  
*Pyrolysis Kinetics and Product Analysis of Vegetable-tanned Leather by TG and TG-FTIR-MS*
- 16h30** Coffee break
- 17h00** Poster session 1
- 18h30**

**MONDAY 8TH | BUILDING C3 - AUDITORIUM 3.2.13**

**SESSION G - EASEL PAINTINGS | CHAIRED BY IDOIA ETXEBARRIA**

- 10h00** 146 Catherine Defeyt, Kevin Thomas, Dominique Marchal and David Strivay  
*Jean-Auguste-Dominique Ingres' pictorial praxis by a multi-analytical approach*
- 10h15** 880 Marcella Loele, Alessandro Ciccola and Paolo Postorino  
*The Deposition by Raffaello Sanzio, analytical insights on cross sections for the characterization of pictorial palette*
- 10h30** 1354 Giulia Sara de Vivo, Francesca Gabrieli and Annelies van Loon  
*New findings on the Rijksmuseum Holy Family attributed to Giovanni Larciani. The role of complementary non-invasive analytical techniques such as MA-XRF and RIS.*
- 10h45** 1858 Francesco Caruso, Tine Frøysaker, Silvia Garrappa, Noëlle L.W. Streeton, Jan Dariusz Cutajar, Lena Porsmo Stoveland, Thierry Ford and Maite Maguregui  
*Non-destructive vibrational spectroscopy study of Edvard Munch's monumental Aula Paintings*
- 11h00** Coffee break

**SESSION G - EASEL PAINTINGS | CHAIRED BY ANA LUÍSA SILVA**

11h30	2875	Anna Mazzinghi, Chiara Ruberto, <u>Lisa Castelli</u> , Pier Andrea Mandò, Lorenzo Giuntini and Francesco Taccetti <b><i>The Portrait of Leo X by Raffaello: characterisation of the painting materials and techniques by means of MA-XRF</i></b>
11h45	2936	<u>Guusje Hartevelde</u> , Francesca Gabrieli, Kathrin Pilz, Muriel Geldof, Inez van der Werf, Luc Megens, Maarten van Bommel, Lars Maxfield, Dominique van Berkum, Anna Vilanova and Ana Martins <b><i>Multi-scale and multi-technical survey of Van Gogh's Small Pear Tree in Blossom to create a digital twin</i></b>
12h00	3468	<u>Frederik Vanmeert</u> , Elke Oberthaler, Sabine Penot, Katharina Uhler, Annelies van Loon, Anna Krekeler, Ige Verslype, Abbie Vandivere, Carol Pottash, Katrien Keune and Koen Janssens <b><i>An investigation into the materials of Vermeer's The Art of Painting using MA-XRF and MA-XRPD</i></b>
12h15	4550	<u>Elvira Scialla</u> , Jessica Brocchieri, Marianna Merolle, Palma Maria Recchia, Roberto Della Rocca, Antonio D'Onofrio and Carlo Sabbarese <b><i>Study of the 'Adoration of the Magi' by Artemisia Gentileschi with multispectral imaging and XRF analysis</i></b>
12h30	6842	<u>Raphael Moreau</u> , Svetlana Gasanova, Nikolas Bakirtzis and Sorin Hermon <b><i>New insights on Titian's Ecce Homo materiality by coupled MA-XRF, RIS and LIS scanning</i></b>
12h45	7402	<u>Dafne Cimino</u> , Angelo Agostino, Paola Artoni, Claudia Daffara and Monica Molteni <b><i>Beyond the youth smile: investigating techniques and materials in Caroto's paintings</i></b>
13h00		Lunch break (Building C7)

**SESSION G - EASEL PAINTINGS | CHAIRED BY SOFIA PESSANHA**

15h00	7633	<u>Steven De Meyer</u> , Victor Gonzalez, Letizia Monaco, Iryn Bijker, Sara Carboni Marri, Francesca Gabrieli, Mathieu Thoury, Roald Tagle, Michele Girona, Loïc Bertrand and Koen Janssens <b><i>Casting light on Robert Delaunay's palette: a multimodal approach using MA-XRPD/XRF</i></b>
15h15	7660	<u>Marcia de Almeida Rizzutto</u> , Renata D.F.M. Rocco, Julia Schenatto, Juliana Bittencourt Bovolenta, Wanda Gabriel Pereira Engel, Marcia Sampaio Barbosa and Ana G. Magalhães <b><i>Massimo Campigli, an Italian painter, studied with non-invasive and portable analytical techniques</i></b>
15h30	7844	<u>Ana Machado</u> , Sara Valadas, Peter Vandenaabeele, António Candeias, Ana Teresa Caldeira, Luís Piorro and Teresa Reis <b><i>Combining in situ Elemental and Molecular Analysis: the Vice-Roys Portraits in Old Goa, India</i></b>
15h45	8384	<u>Frédérique Broers</u> , Annelies van Loon, Victor Gonzalez, Francesca Gabrieli, Jorien Duivenvoorden, Jan Garrevoet, Petria Noble, Koen Janssens, Florian Meirer and Katrien Keune <b><i>Correlative X-ray Fluorescence and Ptychography Tomography at the Nanoscale Elucidate Different Smalt Mixtures used in The Night Watch</i></b>
16h00	8765	<u>Kostas Hatziannakis</u> , Kristalia Melessanaki, Anna Moutsatsou, Agni Terlixi, Elina Kavalieratou, Kalliopi Tsampa, Effrossyni Androulakaki, Panagiotis Assiouras, Demetrios Anglos and Andreas Germanos Karydas <b><i>Evaluation of the combined application of elemental and imaging spectroscopies for the non-invasive analytical characterization of 19th century paintings</i></b>
16h15	6635	<u>Francesca Gabrieli</u> , Annelies Van Loon, Anna Krekeler, Ige Verslype and Katrien Keune <b><i>Johannes Vermeer under different wavelengths</i></b>
16h30		Coffee break
17h00		Poster session 1
18h30		

**TUESDAY 9TH | BUILDING C3 - AUDITORIUM 3.2.14**

**SESSION H - TEXTILES | CHAIRED BY PAULA NABAIS**

09h00		<u>Diego Tamburini</u> <b><i>From Europe to Asia: on the introduction of early synthetic dyes in traditional dyeing practice</i></b>
09h30	1288	<u>Ludovico Geminiani</u> , Cristina Corti, Moira Luraschi, Sila Motella and Laura Rampazzi <b><i>Analytical investigation into cellulosic materials from traditional Japanese samurai armours</i></b>
09h45	1470	<u>Alessia Melelli</u> , Camille Goudenhooff, Loren Morgillo, Sylvie Durand, Johnny Beaugrand, Anita Quiles, Timm Weitkamp, Mario Scheel, Frédéric Jamme and Alain Bourmaud <b><i>Cutting-edge techniques for the investigation of ancient flax textiles</i></b>
10h00	1682	<u>Constantina Vlachou-Mogire</u> , Moira Bertasa, John R Gilchrist, Jon Danskin and Kathryn Hallett <b><i>Historic tapestry dye analysis with hyperspectral imaging</i></b>
10h15	3848	<u>Hortense de La Codre</u> , Rémy Chapoulié, Laurent Servant and Aurélie Mounier <b><i>A comprehensive methodology for the characterisation of 18th-century tapestry dyeing materials: between point analyses and hyperspectral imaging</i></b>
10h30	5773	<u>Pauline Claisse</u> , Francesca Galluzzi, Floréal Daniel, Rémy Chapoulié, Mohamed Dallel and Aurélie Mounier <b><i>SWIR hyperspectral imaging to unveil the numerous restorations of the Lady and the Unicorn tapestry (15th C, Musée de Cluny)</i></b>

10h45	9005	<u>Mila Crippa</u> , Paula Nabais, João Carlos Lima and Dominique Cardon <b><i>New insight into lac dye reds: optimization of portable molecular fluorescence for the characterization of dyed textiles</i></b>
11h00		Coffee break
<b>SESSION A - ANALYTICAL METHODS   CHAIRED BY FRANCESCO PAOLO ROMANO</b>		
11h30	3322	<u>Zdenek Preisler</u> , Rosario Andolina, Andrea Busacca, Claudia Caliri, Costanza Milianni and Romano Paolo <b><i>MA-XRF imaging of paintings: comparative studies by using classical analysis and artificial intelligence</i></b>
11h45	3373	<u>Lauren Dalecky</u> , Simo Huotari, Jean-Pascal Rueff, Christoph Sahle, Alessandro Mirone, Laure Cazals, Agnès Desolneux, Ilaria Bonaduce, Uwe Bergmann, Aurélia Chevalier and Loïc Bertrand <b><i>Inelastic X-ray Scattering: A new probe to identify and image artists' materials</i></b>
12h00	5251	<u>Amelia Suzuki</u> , Cristiano Riminesi and Haida Liang <b><i>Assessment of synchrotron X-ray alteration on paintings with time and spatially resolved VIS-NIR Hyperspectral imaging</i></b>
12h15	5756	<u>Emanuela Grifoni</u> , Emma Vannini, Irene Lunghi, Petra Farioli, Andrea Santacesaria, Marina Ginanni and Raffaella Fontana <b><i>Multi-sensor points cloud Data Fusion for metrological analysis and monitoring of a Renaissance panel paintings</i></b>
12h30	4133	<u>Clément de Mecquenem</u> , Myriam Eveno, Katharina Müller, Sebastian Schoeder, Marine Cotte and Ina Reiche <b><i>Investigation of the influence of lead white on the alteration mechanism of smalt in paintings by SR <math>\mu</math>XRD and <math>\mu</math>XANES</i></b>
12h45	8874	<u>Tiago Veiga</u> , Paula Nabais, Andreia Ruivo, João Carlos Lima, Vanessa Otero and Márcia Vilarigues <b><i>Improving the identification of red lake pigments on historical hand-painted magic lantern glass slides</i></b>
13h00		Lunch break (Building C7)
<b>SESSION A - ANALYTICAL METHODS   CHAIRED BY MATTHIAS ALFELD</b>		
14h30		Francesca Rosi <b><i>Strengthening the MOLAB platform of E-RIHS through advanced hyperspectral chemical imaging at the macro-scale</i></b>
15h00	3394	<u>Maximilian Kiss</u> , Francien G. Bossema, Paul van Laar, Suzan Meijer, Tristan van Leeuwen, K. Joost Batenburg and Felix Lucka <b><i>Object-tailored CT scans for cultural heritage objects</i></b>
15h15	3699	<u>Miriana Marabotto</u> , Leila Es Sebar, Sabrina Grassini, Oleh Yatsuk, Monica Gulmini, Leandro Sottili, Alessandro Lo Giudice and Alessandro Re <b><i>Characterization of portable X-Ray Fluorescence instruments for non-invasive analyses in archaeometry</i></b>
15h30	9941	<u>Francien Bossema</u> , Paul van Laar, Daniel O'Flynn, Joanne Dyer, Tristan Van Leeuwen, Suzan Meijer, Erma Hermens and K. Joost Batenburg <b><i>Fusing 3D imaging modalities for the interior and external investigation of cultural heritage objects</i></b>
15h45	9948	<u>Alessia Di Benedetto</u> , Marta Ghirardello, Daniela Comelli and Gianluca Valentini <b><i>A novel multi-modal optical microscope combining Raman and photoluminescence mapping</i></b>
16h00	2953	<u>Vaclav Krupicka</u> , Florent Grelard, Landry Blanc, Julie Arslanoglu, Nicolas Desbenoit and Caroline Tokarski <b><i>Paint cross-section layer composition identification and prediction using MALDI-MSI</i></b>
16h30		Coffee break
17h00		Poster Session 2
18h30		

## TUESDAY 9TH | BUILDING C3 - AUDITORIUM 3.2.15

## SESSION I - GRAPHIC DOCUMENTS | CHAIRED BY JOÃO CRUZ

09h30	431	<u>Floriana Coppola</u> , Luca Frigau, Jernej Markelj, Jasna Malešič, Claudio Conversano and Matija Strlič <i>Machine learning and NIR spectroscopy for dating of books</i>
09h45	1313	<u>Jacek Bagniuł</u> , Dominika Pawcenis, Monika Koperska, Adriano Mosca Conte, Mauro Missori and Joanna Profic-Paczkowska <i>Characterization of ancient paper degradation state – micro- and noninvasive multimethod approach</i>
10h00	1610	<u>Catarina Miguel</u> , Sílvia Bottura-Scardina, Ana Teresa Caldeira, Pedro Flor and António Candeias <i>To be or not to be – what can material analysis say about the so-called Infante D. Henrique in the Crónica Geral da Guiné?</i>
10h15	1728	<u>Marc Vermeulen</u> , Claudia Conti and Alessandra Botteon <i>Seeing through the surface –micro-Spatially Offset Raman Spectroscopy Imaging on paper-based archival documents</i>
10h30	1885	<u>Lucile Brunel-Duverger</u> , Laurence de Viguerie, Victorien Georges, Jeremy Le Bellego, Leila Sauvage and Emeline Pouyet <i>In-situ multimodal study of 18th c. pastels</i>
10h45	9150	<u>Raphaël Moreau</u> , Charlotte Denoël, Laurent Pichon and Thomas Calligaro <i>Investigating the polychromy of the Saint-Sever Beatus illuminated manuscript by exploiting spatially coupled XRF/RIS/LIS mappings</i>
11h00		Coffee break

## SESSION I - GRAPHIC DOCUMENTS | CHAIRED BY OLIVER HAHN

11h30	2120	<u>Ekaterina Pasnak</u> , Sílvia Sequeira and Jasna Malešič <i>Multi-analytical survey of the Norwegian Sea Trade Archive collection of manuscripts with iron-gall ink</i>
11h45	2324	<u>Linguan Cao</u> , Xinyan Jiang, Chunsheng Yan and Hui Zhang <i>Research on Near-infrared Spectroscopy and Raman Spectroscopy of Handmade Paper Based on Machine Learning</i>
12h00	2357	<u>Márcia Vieira</u> , Maria João Melo and Paula Nabais <i>Going green: The secret behind a fragile yet remarkable medieval color</i>
12h15	3045	<u>Zina Cohen</u> , Till Hennings, Oliver Hahn, Philippe Depreux and Ira Rabin <i>Ink Analysis in Carolingian Manuscripts: A Study in black and red</i>
12h30	3504	<u>Gael Latour</u> , Margaux Schmeltz, Laurianne Robinet, Sylvie Heu-Thao, Giulia Galante and Marie-Claire Schanne-Klein <i>Non-invasive quantitative assessment of collagen degradation in parchments by polarization-resolved SHG microscopy</i>
12h45	3948	<u>Luís Manuel de Almeida Nieto</u> , Lukasz G. Migas, Joris Dik, Matthias Alfeld and Raf Van de Plas <i>Advancing the Analysis of Historical Manuscripts by Combining Machine Learning with Reflectance Imaging Spectroscopy</i>
13h00		Lunch break (Building C7)

## SESSION I - GRAPHIC DOCUMENTS | CHAIRED BY CÁTARINA MIGUEL

15h00	4507	<u>Gianluca Pastorelli</u> , Annette S. Ortiz Miranda, Ermanno Avranovich Clerici, Paolo d'Imporzano, Koen Janssens, Gareth R. Davies and Niels Borring <i>A multi-analytical study of lead white darkening in old master drawings at the National Gallery of Denmark</i>
15h15	5343	<u>Fabiana Di Gianvincenzo</u> , Hassan Ebeid, Irena Kralj Cigić and Matija Strlič <i>Chromatographic analysis of natural dyes used in Islamic paper manufacture</i>
15h30	5578	<u>Arthur Gestels</u> , Thomas De Kerf, Frederik Vanmeert, Francesca Gabrieli, Koen Janssens, Gunther Steenackers and Steve Vanlanduit <i>Calibration of reflectance imaging spectroscopy using MA-XRPD for 16th century illuminated manuscript</i>
15h45	5757	<u>Barbara Wagner</u> , Jakub Karasiński, Ludwik Halicz, Piotr Targowski, Dorota Jutrzenka-Supryń, Ewa Chlebus, Paulin Pludra-Żuk, Monika Opalińska and Zofia Stos-Gale <i>Pb isotope-based studies of manuscripts' origin: non-invasive tracing of parchment fragments to the 11th century</i>
16h00	6022	<u>Natércia Teixeira</u> , Hugo Cruz, André Neto E Silva, Luís Cunha-Silva, Paula Nabais, Fernando Pina, Victor de Freitas and Maria João Melo <i>Medieval writing: the chemistry behind iron gall inks</i>
16h15	6086	<u>Grzegorz Nehring</u> , Oliver Hahn and Ira Rabin <i>Exotic writing inks and how to identify them</i>
16h30		Coffee break
17h00		Poster Session 2
18h30		

## TUESDAY 9TH | BUILDING C3 - AUDITORIUM 3.2.13

## SESSION C - GLASS AND RELATED MATERIALS | CHAIRED BY SOPHIE WOLF

09h30	2651	<u>Emma Paolin</u> , Fabiana Di Gianvincenzo, Irena Kralj Cigić and Matija Strlič <b><i>Chemical and sensory analysis of a perfume flask with gas chromatography-olfactometry</i></b>
09h45	1743	<u>Victoria Corregidor</u> , Luís C. Alves, Inês I. Mendes da Silva, Ana L. Rodrigues, António P. Gonçalves, Luís Ferreira, Miguel Reis, Cristina Chaves, Dulce Russo and Rosa Marques <b><i>Non-destructive characterization of colored mineral glazed beads</i></b>
10h00	2284	<u>Grégoire Chêne</u> , Bernard Gratuze, Patrick Degryse, David Strivay and Line Vanwersch <b><i>Early medieval age glass production techniques studies : an Inter-laboratory and multi-analytical techniques intercomparison campaign</i></b>
10h15	5939	<u>Francesca Gherardi</u> , Marine Cotte, Ewan Campbell, Rachel Tyson and Sarah Paynter <b><i>Investigating the role of iron and manganese oxides in colouring late antique glass by XANES and micro-XRF spectroscopies</i></b>
10h30	5718	<u>Carla Machado</u> , Mohamed Oujja, Marina Martínez-Weinbaum, Laura Maestro-Guijarro, Marta Castillejo, Márcia Vilarigues and Teresa Palomar <b><i>Laser-based techniques for the characterization of historically accurate grisaille paint reproductions</i></b>
10h45	6015	<u>Hon Wen Chen</u> and Chin Ssu Cheng <b><i>Nondestructive XRD (X-ray Diffraction) crystallization and XRF (X-ray fluorescence) analysis of Taiwan indigenous glass beads</i></b>
11h00		Coffee break

## SESSION C + A - GLASS AND RELATED MATERIALS + ANALYTICAL METHODS | CHAIRED BY ANDREAS KARYDAS

11h30	6341	Sophie Wolf, <u>Alessandra Vichi</u> and Francesco Caruso <b><i>Unveiling the secrets of 'verre églomisé' paintings: potential and limits of a non-destructive analysis</i></b>
11h45	8160	<u>Oleh Yatsuk</u> , Sabrina Molinaro, Patrizia Davit, Anzhelika Kolesnychenko, Stanislav Zadnikov, Iryna Shramko, Lorena Carla Giannossa, Annarosa Mangone, Giulia Berruto, Roberto Giustetto and Monica Gulmini <b><i>Analysis of vitreous beads from the Iron Age site of Bilsk hillfort (Ukraine): an insight into glass-making technology and trade networks.</i></b>
12h00	9426	<u>Stefania Martiniello</u> , Claudia Sciuto, Antonella Capitanio, Giulia Lorenzetti, Stefano Legnaioli, Filippo Sala, Paolo Torriti and Simona Raneri <b><i>Portable XRF and Raman spectroscopies to outline the story of Medieval precious objects</i></b>
12h15	1573	<u>Alexandra Rodrigues</u> , Mario Bandiera, Paul van Laar, Erma Hermens and Márcia Vilarigues <b><i>Blue enamels. A preliminary non-invasive study of the blue enamels in objects from the Fitzwilliam Museum</i></b>
12h30	4474	Joana Palmeirão, Margarida Nunes, Ana Manhita, Maria Coutinho, Eduarda Vieira and <u>Teresa Ferreira</u> <b><i>The ceroplastic simulacra of Vitoria, Eleonora and Martian</i></b>
13h00		Lunch break (Building C7)

## COMERCIAL SESSION | CHAIRED BY MAURO GUERRA

15h00		Emilien Leonhardt, Hirox <b><i>100 billion pixel 3D color scan of Vermeer's Girl with a Pearl Earring using the Hirox digital microscope</i></b>
15h15		Marta Ghirardello, NIREOS <b><i>HERA: a novel hyperspectral camera for cultural heritage analysis</i></b>
15h30		Michele Girona, Bruker Nano Analytics <b><i>Bruker Nano Analytics, Iconic Instruments for Art</i></b>
15h45		Hannah Conway-Laws, Opus Instruments <b><i>An Introduction to Opus Instruments: Leaders in Art &amp; Analysis</i></b>
16h00		Jani Santos, XpectraCAM <b><i>Optimization of Art Analysis methods based on the XpeCAM Solution</i></b>
16h30		Coffee break
17h00		Poster Session 2
18h30		

WEDNESDAY 10TH   BUILDING C3 - AUDITORIUM 3.2.14	
SESSION J - PIGMENTS AND DYES   CHAIRED BY KOSTAS HATZIGIANNAKIS	
09h00	Victor Gonzalez <i>Investigating the synthesis, use and alteration of historical pigments at the multi-scale</i>
09h30	4352 <u>Sanne Berbers</u> , Rika Pause, Inez van der Werf, Klaas Jan van den Berg and Maarten van Bommel <i>Fanal® pigments in the spotlight</i>
09h45	4366 <u>Silvia Garrappa</u> , Valentina Pintus, Anthony J. Baragona, David Hradil, Ferenc Szabo and Katja Sterflinger <i>Different shades of cadmium soaps in mock-up oil paints: first multi-analytical investigation</i>
10h00	6025 <u>Nina Deleu</u> , Steven De Meyer, Frederik Vanmeert, Geert Van der Snickt, Jana Sanyova and Koen Janssens <i>Combined in situ MA-XRPD and cross-section SR-<math>\mu</math>-XRPD imaging for the study of copper sulfates: an overlooked group of green copper pigments in Flemish Renaissance art</i>
10h15	6174 <u>Paula Nabais</u> , Mara Santo, Natércia Teixeira, Mila Crippa and Dominique Cardon <i>Molecular fluorescence: disclosing the dyeing formulations of weld yellows from 18th-century recipe books</i>
10h30	7057 <u>Cyrielle Messenger</u> , <u>Lucile Beck</u> , Dominique Blamart, Patricia Richard, Katarina Batur, Victor Gonzalez and Eddy Foy <i>Carbon isotopes in lead white: absolute dating and manufacturing process identification of the pigment</i>
10h45	8529 <u>Camilla Tartaglia</u> , Maria Pia Riccardi, Gianlorenzo Bussetti and Alberto Grimoldi <i>Micromorphological observations as a potential method to study indigo blues</i>
11h00	Coffee break
SESSION J - PIGMENTS AND DYES   CHAIRED BY VICTOR GONZALEZ	
11h30	1349 <u>Giovanni Cavallo</u> , Mariapia Riccardi and Roberto Zorzin <i>A mineralogical and geochemical database of Fe-bearing mineral pigments from North-Eastern Italy</i>
11h45	1820 <u>Marta Magalini</u> , Alessandro Lo Giudice, Alessandro Re, Laura Guidorzi, Alessandro Borghi, Massimo Vidale, Dennys Frénez, Toshi Nozaka, Leonardo La Torre, Laurent Pichon, Quentin Lemasson, Brice Moignard and Claire Pacheco <i>New light on the provenance of lapis lazuli found in Shahr-i Sokhta site using Ion Beam Analysis.</i>
12h00	5131 <u>Corentin Cou</u> , Hortense de la Codre, Xavier Granier and Aurélie Mounier <i>Pearson correlation-based method on hyperspectral images for the study of similarity of pigments and dyes</i>
12h15	6901 <u>Lucia Burgio</u> <i>The Renaissance of Indigenous American Lacquer – a Review of Current Research</i>
12h30	7462 <u>Ekaterina Morozova</u> , Irina Kadikova and Svetlana Pisareva <i>Titanium dioxide-based paints produced in the USSR: a study of archival materials and reference samples</i>
12h45	8288 <u>Jorien Duivenvoorden</u> , Federico Caporaletti, Sander Woutersen, Katrien Keune and Joen Hermans <i>DSC and cryo-FTIR indicate presence of water clusters in zinc-white oil paint</i>
13h00	Lunch break (Building C7)
SESSION K - VARNISHES AND RESINS   CHAIRED BY DEMETRIOS ANGLÓS	
14h30	<u>Stamatis C. Boyatzis</u> <i>Non-invasive infrared spectroscopy of varnishes on artworks</i>
15h00	2243 <u>Victoria Beltran</u> , Andrea Marchetti, Patricio Guerrero, Ferenc Borondics, Christophe Sandt, Mario Scheel, Wim Dewulf, Ligia Maria Moretto and Karolien De Wael <i>The interaction between geranium lake particles and drying oil assessed by SR-<math>\mu</math>FTIR and SR-XCT</i>
15h15	3633 <u>Chiara Chillè</u> , Charis Theodorakopoulos and Marianne Odlyha <i>Further studies on the breakdown of selected natural and synthetic artists' varnishes upon Er:YAG laser irradiation</i>
15h30	8131 <u>Valentina Pintus</u> , Carlotta Cozzani, Silvia Miklin, Paula Gassmann and Katja Sterflinger <i>Mind the cracks! Chemical and physical changes of blended Thitsiol/Urushiol Asian lacquers elucidated through a novel multi-analytical study</i>
15h45	5207 <u>Elisabet Serrat</u> , Javier Becerra, Anna Vila and Aleix Barberà <i>Use of 3D Scanning to the study of craquelures on Joan Miró's "Pintura"</i>
16h30	Coffee break
17h00	Poster session 3
20h00	Dinner at <i>Casa do Alentejo</i>



## WEDNESDAY 10TH | BUILDING C3 - AUDITORIUM 3.2.15

## SESSION L - MURAL PAINTINGS | CHAIRED BY MAITE MAGUREGUI

- 09h30** 2586 Alice Dal Fovo, Jana Striova, Enrico Pampaloni, Irene Lunghi, Marco Raffaelli and Raffaella Fontana  
*Revealing unseen evidence of the hand of Masolino, Masaccio and Lippi in the Brancacci Chapel frescoes*
- 09h45** 2623 Iliaria Costantini, Idoia Etxebarria, Iñaki Vázquez de la Fuente, Julene Aramendia, Gorka Arana, Irantzu Martinez-Arkarazo, Juan Manuel Madariaga, Macarena Sanz, Lucía Pérez, Ángel Yedra, Beatriz Yécora and Tamara Oroz  
*Multi-technical approach for the study of the conservation state of mural paintings of Navalcarnero (Spain)*
- 10h00** 2885 Tiziana Lombardo, Marta Caroselli, Camilla Martinucci, Erwin Hildbrand, Patrizia Moretti and Patrick Cassitti  
*Investigation of the Carolingian and Romanesque wall paintings detached from the church of St. Johann in Müstair*
- 10h15** 9809 Valeria Di Tullio, Noemi Proietti, David Buti, Sveva Longo, Alberto Felici, Donata Magrini and Cristiano Riminesi  
*Water profile distribution inside wall paintings by NMR-MOUSE in combination with evanescent-field dielectrometry technique and near-IR reflectance spectroscopy*
- 10h30** 719 Sihan Zhao, Zhibo Zhou, Lin Zhang and Hui Zhang  
*Identification of Fake Gold Gilding Material in the Ancient Wall Paintings by Mass Spectrometry Imaging*
- 11h00** Coffee break

## SESSION L - MURAL PAINTINGS | CHAIRED BY MILENE GIL

- 11h30** 3854 Giasemi Frantzi, Harikleia Brekoulaki, Andreas Germanos Kyrydas, Georgios P. Mastrotheodoros, Stamatios Boyatzis and Panayiotis Theoulakis  
*Investigating colour on Archaic architecture: A case study on the Peisistrateion Telesterion at Eleusis*
- 11h45** 3863 Francesca Sabatini, David Buti, Fauzia Albertin, Brenda Doherty, Letizia Monico, Aldo Romani, Francesca Rosi, Maria Sileo, Nicodemo Abate, Antonio M. Amodio, Nicola Masini, Antonio Pecci and Laura Cartechini  
*Urban art in Milan: non-invasive analytical strategies for the study of street art murals*
- 12h00** 4468 Maiete Maguregui, Francesco Caruso, Francesco Giannici, Alessandra Vichi, Claudio Ventura Bordenca, Olivier Mathon and Marine Cotte  
*Metallic mercury, at last! Synchrotron radiation-based study on Pompeian cinnabar wall paintings*
- 12h15** 7854 Ermanno Avranovich Clerici, Steven De Meyer, Frederik Vanmeert, Letizia Monico, Costanza Miliiani and Koen Janssens  
*Cumengeite in wall paintings, intentional application or secondary product?*
- 13h00** Lunch break (Building C7)

## SESSION I - GRAPHIC DOCUMENTS | CHAIRED BY VICTORIA CORREGIDOR

- 15h00** 6148 Michela Perino, Edoardo Colonna, Anna Candida Felici, Vittoria Bruni, Domenico Vitulano and Michela Rosellini  
*New insight into the palimpsests of Ars Prisciani*
- 15h15** 6315 Sara Mazzocato, Dafne Cimino and Claudia Daffara  
*Integrated microprofilometry and multispectral imaging for full-field analysis of ancient manuscripts*
- 15h30** 6494 Heinz-Eberhard Mahnke, Tzulia Angos, Tobias Arlt, Klaus Lips, Joseph E. McPeak and Verena Lepper  
*A New Approach for Accessing Hidden Text on Papyri Written with Carbon Ink\**
- 15h45** 7594 Lucia Pereira-Pardo, Paul Dryburgh, Marc Vermeulen, Elizabeth Biggs, Peter Crooks, Adam Gibson, Molly Fort, Constantina Vlachou-Mogire, Moira Bertasa, John R Gilchrist and Jon Danskin  
*Reading the Unreadable. Advanced Imaging to Recover Illegible Text in Historic Documents*
- 16h00** 7948 Juliana Bittencourt, Márcia Rizzutto, Wanda Engel, Maria Aparecida Borrego, Phablo Fachin, Regina Hauy, Jean Souza, Igor Cassemiro, Maria Luiza Lamardo and Mariza Koga  
*Material investigation on Italian and Portuguese papers from the Republican Museum Convention of Itu, Brazil*
- 16h15** 8493 Andrei Kazanskii, Jitka Neoralová, Rita Lyons Kindlerová, Dana Novotná, Petra Vávrová, Daniel Vavřík, Ivana Kumpová, Michal Vopálenký and Tomáš Kyncl  
*The use of X-ray computed tomography and X-ray fluorescence in the research of historical printing from the 17th century*
- 16h30** Coffee break
- 17h00** Poster Session 3
- 20h00** Dinner at Casa do Alentejo

WEDNESDAY 10TH   AUDITORIUM 3.2.13	
SESSION M + A - POLYMERS + ANALYTICAL METHODS   CHAIRED BY PAULA CARMONA-QUIROGA	
09h30	148 Eva Mariasole Angelin, <a href="#">Anna Micheluz</a> and Marisa Pamplona <i>Investigation of the discoloration of polyurethane elastomeric plastics in computer heritage: have we met an analytical challenge?</i>
09h45	288 <a href="#">Tjaša Rijavec</a> , Matija Strlič and Irena Kralj Cigić <i>Predicting the yellowing of PVC objects in heritage collections</i>
10h00	635 <a href="#">Jacek Bagniak</a> , Monika A. Koperska, Dominika Pawcenis and Joanna Profic-Paczkowska <i>A systematic approach to study natural polymer ageing and condition. Analysis contra model</i>
10h15	1262 <a href="#">Irene Bargagli</a> , Laura Cartechini, Brenda Doherty, Francesca Sabatini, Martina Alunni Cardinali, Lucia Comez, Marco Paolantoni, Valeria Di Tullio, Noemi Proietti, Costanza Miliani, Daniele Fioretto, Elisa Storace, Sara Russo, Rafaela Trevisan and Francesca Rosi - <i>Mechano-chemical monitoring of plastic degradation: surface and sub-surface modification of artificially aged ABS</i>
10h30	5972 <a href="#">Ioanna Mantouvalou</a> , Leona Bauer, Aleksandra Marushchenko, Ioannis Siouris, Maram Naes and Birgit Kanngießer <i>SynLab for cultural heritage – joint X-ray imaging and spectroscopy measurements at the synchrotron and in the laboratory</i>
10h45	5852 Wolfgang Kautek, <a href="#">Valentina Ljubic Tobisch</a> , Klaudia Hradil, Karin Whitmore, Christina Strelis and Peter Wobruschek <i>Surface Characterization of Austrian Daguerreotypes</i>
11h00	Coffee break
SESSION N - SCIENTIFIC AND TECHNOLOGICAL HERITAGE   CHAIRED BY ISABEL TISSOT	
11h30	902 <a href="#">Aurora Malmert</a> , Clarisse Chavanne, Alain Brunelle and Emeline Pouyet <i>Non-invasive analyses of E. Chevreul's chromatic circles</i>
11h45	3785 <a href="#">Jacopo La Nasa</a> , Catharina Blaensdorf, Eleonora Dolcher, Riccardo Ducoli, Serena Del Seppia, Jeannette J. Lucejko, Antonella Mannariti, Anna Micheluz, Francesca Modugno, Neva Capra, Lucia Giovannini, Maria Luisa Tomasi, Marisa Pamplona, Maria Perla Colombini, Ilaria Degano and Ilaria Bonaduce - <i>Aerospace technology as part of our heritage: characterization of aircraft materials and study of their degradation processes by analytical pyrolysis</i>
12h00	4606 <a href="#">Lorna Brundrett</a> , Rebecca Ploeger, Aaron Shugar, Juan Juan Chen, Emily Hamilton and Theresa J. Smith <i>19th-Century Medical Saddlebag: An Analysis of the Medicinal Contents</i>
12h15	2101 <a href="#">Miriam Pressato</a> , Teresa Lança Ruivo, Catarina Miguel, António Candeias and Sara Valadas <i>Study of 18th century Chinese wallpapers from the National Museum of Ancient Art (Lisbon): a multi-analytical approach</i>
12h30	4288 <a href="#">Taren Ginter</a> , Megan Gallagher, Shaelyn Horvath, Josephine La Macchia, Sonia Marotta and Fiona E. McNeill <i>The Beautifying Properties of Historical White Lead Makeup</i>
12h45	5051 <a href="#">Jens Gold</a> , Francesco Caruso, Noëlle Lynn Wenger Streeton and Maite Maguregui <i>Discovering Lippmann interferential colour photography at the Preus Museum through a non-invasive multianalytical approach</i>
13h00	Lunch break (Building C7)
SESSION O - MODERN MATERIALS AND CONTEMPORARY ART   CHAIRED BY CLAUDIA CALIRI	
15h00	8390 <a href="#">Tea Ghigo</a> , Kelly Domoney, Daniel Bone and Andrew Beeby <i>Archival research and material analyses to explore artists' attitudes towards pigments' durability: John Ruskin and the 19th-century Colour Revolution</i>
15h15	8043 <a href="#">Francesca Galluzzi</a> , Rémy Chapoulie, Floréal Daniel, Regine Bigorne, Laurent Vadrine and Aurélie Mounier <i>Goupiil &amp; Cie and the democratisation of art in the 19th century: A non-invasive investigation of mechanical reproductions of artworks</i>
15h30	8343 <a href="#">Fauzia Albertin</a> , Aldo Romani, Claudio Costantino, David Buti, Letizia Monico, Francesca Sabatini, Donata Magrini, Claudia Caliri, Claudia G. Fatuzzo, Zdenek Preisler, Francesco Paolo Romano, Costanza Miliani, Aurélie Tournie, Christine Andraud, Irina Crina Anca Sandu, Jin Strand Ferrer, Giorgio Luciano, Laura Cartechini and Francesca Rosi - <i>Multi-source data fusion of modern complex paintings</i>
15h45	9962 Pierre Taugeron, Sullivan Bricaud, Cindie Kehlet and <a href="#">Jens Dittmer</a> <i>New techniques for NMR depth profiles with enhanced resolution and sensitivity and the study of mobile phases in paint layers, applied to a white Nevelson sculpture</i>
16h00	297 Stefano Legnaioli, Giulia Lorenzetti, <a href="#">Luca Nodari</a> , Rosa Costantini, Patrizia Tomasin and Luciano Pensabene Buemi <i>"Ce n'est pas la colle qui fait le collage": the analytical challenge of Ernst's multi-material artworks</i>
16h30	Coffee break
17h00	Poster Session 3
20h00	Dinner at <i>Casa do Alentejo</i>

THURSDAY 11TH   BUILDING C3 - AUDITORIUM 3.2.14	
SESSION P - METALS   CHAIRED BY ROBERT VAN LANGH	
09h00	Isabel Tissot - <i>Through a metal darkly: How analytical techniques brighten the conservation of cultural heritage metallic objects</i>
09h30	603 <u>Stephen Merkel</u> , Paolo D'Imporanzo, Rory Naismith, Gareth Davies and Jane Kershaw <i>New application of portable laser sampling for Pb isotope analysis of silver</i>
09h45	2594 <u>Isabel Rute Fontinha</u> , Maria João Correia and Elsa Eustáquio <i>Electrochemical techniques for patinas and coatings assessment in conservation studies</i>
10h00	2762 <u>Alexandre Gillon</u> , Charbel Koumeir, Charlène Pelé-Méziani, Gildas Salaün, Ferid Haddad and Guy Louarn <i>Investigation of the new world silver provenance and trade in Europe during the 16th and 17th centuries: HE-PIXE and p-XRF spectroscopic analysis</i>
10h15	4056 <u>Javier Moreno-Soto</u> , Miguel A. Respaldiza, Simona Scrivano, Ruth Pliego, Blanca Gómez-Tubío, Enrique García-Vargas and Francisca Chaves-Tristan <i>An approach to the metallic composition of the Carthage mint coins from the tetrarchic hoard of Tomares</i>
11h00	Coffee break
SESSION A+ Q - ANALYTICAL METHODS + PAINTS   CHAIRED BY STAMATIS BOYATZIS	
11h30	6957 <u>Pedro Alexandre Caetano Alves</u> and Francesca Caterina Izzo <i>The Molecular Clock of Ageing Oils</i>
11h45	2880 <u>Ophélie Ranquet</u> , Giulia Caroti, Rafaella Georgiou, Patrick Dietemann, Norbert Willenbacher, Celia Duce and <u>Ilaria Bonaduce</u> <i>Mass spectrometry and thermoanalytical techniques to understand the transition from egg tempera to oil paint in Italian Renaissance</i>
12h00	4783 <u>Ida Fazlic</u> , Marine Cotte, Victor Gonzalez, Frederik Vanmeert, Arthur Gestels, Steven De Meyer, Frédérique Broers, Joen Hermans, Annelies van Loon, Ermanno Avranovich Clerici, Koen Janssens, Petria Noble, Jitte Flapper, Bas De Bruin and Katrien Keune <i>Lead(II) Formate: from Historical to Model Paints</i>
12h15	3533 <u>Lucie Laporte</u> , Guylaine Ducouret, Sophie Rochut, Frédéric Gobeaux and <u>Laurence de Viguerie</u> <i>Influence of lead driers on oil paint properties</i>
12h30	3713 <u>Lucilla Pronti</u> , Martina Romani, Marcella Ioele, <u>Ilaria Sinceri</u> , Elena Cianca, Eleonora Gorga, Gloria Tranquilli, Francesca Fumelli and Mariangela Cestelli Guidi <i>Micro and Macro FT-IR spectroscopic imaging and mapping as a tool for the detection of degradation products and for monitoring the cleaning processes of painted surfaces</i>
12h45	7043 <u>Alba Alvarez Martin</u> , Teresa Scovacricchi, Jusal Quanico, Ermanno Avranovich Clerici, Geert Baggerman, Frederik Vanmeert, Arthur Gestels and Koen Janssens <i>Tracking secondary products in aged paint cross-sections by MALDI-MS Imaging</i>
13h00	Lunch break (Building C7)
SESSION P - METALS   CHAIRED BY COSTANZA MILIANI	
14h30	<u>Francesco Grazzi</u> <i>Non-invasive analysis of historical and archaeological metal artefacts through neutron imaging and neutron diffraction: highlights and case studio</i>
15h00	790 <u>Giulia Festa</u> , Claudia Caliri, Giulia Privitera, Claudia G. Fatuzzo, Danilo P. Pavone, Claudia Scatigno, Enrico Ferraris, Johannes Auenmüller, Costanza Miliani and Francesco Paolo Romano <i>Studying Ancient Egyptian metal vessels by X-ray diffraction and Machine Learning.</i>
15h15	955 <u>Yueer Li</u> , Lambert van Eijck, Francesco Cantini, Oriol Sans Planell, Marta Magalini, Johannes Auenmüller, Sara Aicardi, Valentina Turina, Luisa Vigorelli, Lorenzo Dotto, Alessandro Re, Alessandro Lo Giudice, Leila Es Sebar, Miriana Marabotto, Sabrina Grassini, Nicla Gelli and Francesco Grazzi <i>New insights into ancient Egyptian bronze votive coffins for animal mummies through Neutron Imaging and Neutron Activation Analysis</i>
15h30	8437 <u>Francesco Abate</u> , Michela De Bernardin, Maria Stratigaki, Giulia Franceschin, Fauzia Albertin, Matteo Bettuzzi, Rosa Branaccio, Anita Bressan, Maria Pia Morigi, Salvatore Daniele and Arianna Traviglia <i>Renewing archaeological practice with modern technology: <math>\mu</math>XCT for the facile screening of excavated copper coins</i>
15h45	8566 <u>Francesco Armetta</u> and Maria Luisa Saladino <i>Methodological approaches for underwater archeological metals investigation</i>
16h30	Coffee break
17h00	Poster session 4
18h30	

**THURSDAY 11TH | BUILDING C3 - AUDITORIUM 3.2.15**

**SESSION D - SUSTAINABLE CONSERVATION | CHAIRED BY KATRIEN KEUNE**

- 09h30** 276 Maduka Lankani Weththimuni, Chaehoon Lee, Chiara Milanese, Barbara Vignani, Marco Malagodi, Silvia Rossi and Maurizio Licchelli - ***A Comparative study of "green" and synthetic gels as tools for the cleaning of artifacts***
- 
- 09h45** 2796 Lucrezia Barchi, Gabriele Cencetti, Massimiliano Frattoni, Marco Michelozzi, Cristiano Riminesi, Aldo Romani, Francesca Rosi, Diego Sali, Francesca Vichi and Costanza Miliani  
***New strategies for VOCs control in museums showcases***
- 
- 10h00** 3363 António Carrapico, Maria Rosário Martins, Ana Teresa Caldeira, Ana Cardoso, Elisabete Carreiro, José Mirão and Luís Dias  
***AgNPs applied to Cultural Heritage: Exploring its antimicrobial potential using "Green" approaches***
- 
- 10h15** 6250 Chaehoon Lee, Maduka L. Weththimuni, Francesca Di Turo, Barbara Vignani, Fabio Beltram, Pasqualantonio Pingue, Silvia Rossi, Maurizio Licchelli, Marco Malagodi, Haejin Park, Yongjae Chung, Francesca Volpi and Giacomo Fiocco  
***Not Just for Eating! Alginate-based Gels and Their Application Studies***
- 
- 10h30** 7074 Chiara Genova, Marzia Beccaccioli, Alessandro Lazzara, Alessandro Ciccola, Simona Sennato, Gabriele Favero and Alessia Masi  
***Development of environmentally-friendly biocidal systems based on chitosan-nanoparticles loaded with R-(+)-pulegone to protect wood from fungal attack***
- 
- 10h45** 1612 Francesca Ramacciotti, Laure Cazals, Giorgia Scitutto, Rocco Mazzeo, Silvia Prati, Loïc Bertrand and Mathieu Thoury - ***Photoluminescence MA-imaging for the assessment and study of new cleaning systems***
- 
- 11h00** Coffee break

**SESSION E + R - ARCHAEOLOGICAL MATERIALS AND SITES + STONE | CHAIRED BY FRANCESCO CARUSO**

- 11h30** 3698 Iñaki Vázquez de la Fuente, Idoia Etxebarria, Ilaria Costantini, Marco Veneranda, Nagore Prieto Taboada, Giuseppe Di Girolami, Angela Di Lillo, Marina Caso, Mario Notomista, Rossella Di Lauro, Kepa Castro, Gorka Arana and Juan Manuel Madariaga - ***Degradation of tuff buildings at the Archaeological park of Herculaneum (Italy): preliminary multianalytical study***
- 
- 11h45** 4798 Ewa Bułska, Mariusz Ziółkowski - ***Analytical scenario for the investigation of Machu Picchu cultural heritage in Peru***
- 
- 12h00** 9285 Jorge Sanjurjo Sánchez, Rebeca Blanco-Rotea, Rosa Benavides, David Freire Lista, Jose Carlos Sánchez-Pardo, Isabel Prudêncio, Isabel Dias and Chris Burbidge  
***Absolute dating of building materials from the Santalla de Bóveda Monument (Lugo, NW Spain)***
- 
- 12h15** 7999 Rana Nur Karataş, Amine Seyhun Alkan Reis, Mahmud Çavur, Murat Güvenç, Yonca Erkan, Sude Erkmen and Füsün Alioğlu  
***Remote Sensing for Land Use and Land Cover Change: Interpretation of Iznik's Rural Heritage***
- 
- 12h30** 7243 Fernanda Carvalho, Maria Margarida Lima and João Pedro Veiga  
***Mineralogical identification of historical mortars from built heritage using Raman spectroscopy***
- 
- 13h00** Lunch break (Building C7)

**SESSION R - STONE | CHAIRED BY PATRIZIA TOMASIN**

- 15h00** 783 Sara Calandra, Claudia Conti, Irene Centauro and Emma Cantisani - ***Micro-Raman spectroscopy for identification of calcite types in historical mortars: applications in archaeometry***
- 
- 15h15** 3043 Milena Anfosso, Doria Costa, Laura Gaggero, Silvia Vicini, Francesca Piqué, Mauro Matteini and Angelita Mairani - ***A new consolidation protocol with Di-ammonium phosphate for Italian Stones***
- 
- 15h30** 4670 Paulina Guzman Garcia Lascurain, Sara Goidanich, Irene de Giuli, Carlos Rodríguez-Navarro and Lucia Toniolo  
***Study of the influence of micro- & nano-cellulose on the growth and carbonation kinetics of portlandite particles***
- 
- 15h45** 6147 Andrea Campostrini, Sabrina Manente, Alessandro Di Michele, Elena Ghedini, Michela Signoretto and Federica Menegazzo  
***High-tech multifunctional marmorino plaster with antimicrobial and self-cleaning properties***
- 
- 16h00** 6297 Luís Almeida, António Santos Silva, Rosário Veiga and José Mirão  
***Combined application of petrography and SEM-EDS: outputs for accurate identification of binders in hydraulic mortars***
- 
- 16h30** Coffee break
- 17h00** Poster session 4
- 18h30**

**THURSDAY 11TH | BUILDING C3 - AUDITORIUM 3.2.13**

**SESSION A + R - ANALYTICAL METHODS + ROCK ART | CHAIRED BY MÁRCIA VILARIGUES**

- 09h30** 2221 Clarissa Dominici, Chiaramaria Stani, Giovanni Birarda, Francesco Boschin, Lisa Vaccari and Adriana Moroni - *Monitoring changes in human activities across the Upper Palaeolithic: a statistical approach for the critical assessment of ancient organic residues through SR-FTIR microscopy*
- 09h45** 5178 Daniela Puzio, Alessia Andreotti, Luca Bachechi, Giulia Lorenzetti, Stefano Legnaioli, Simona Raneri and Vincenzo Palleschi - *Discovering the rock paintings of the Ethiopian plateau: the Goda Daga Barru and Enda Aba Shillemun shelters*
- 10h00** 5751 Laura Rabbachin, Guadalupe Piñar, Irit Nir, Ariel Kushmaro, Mariela Pavan, Elisabeth Eitenberger, Monika Waldherr, Alexandra Graf and Katja Sterflinger - *From the desert to the Alps: a study to unveil biodeterioration patterns of historical petroglyphs integrating metagenomics with analytical techniques*
- 10h15** 5839 José Tapia, Myriam Eveno, Pablo Arias, Thomas Calligaro, Laurent Pichon, Sebastian Schöder, Katharina Müller and Ina Reiche - *Confocal XRF depth profiling combined with XRF mapping to non-destructively understand the stratigraphy of prehistoric cave art*
- 10h30** 5922 Victory Jaques and Katarína Holcová - *Calcareous nannofossils assemblage in paintings chalk ground for provenance analysis: 3 original paintings compared to European source materials*
- 10h45** 5145 Pablo Pérez-Vasallo, David Juanes and Eusebio Solórzano  
*WideXcan: An automated high resolution X-ray radiography system for large artwork pieces*
- 11h00** Coffee break

**SESSION E + A - ARCHAEOLOGICAL MATERIALS + ANALYTICAL METHODS | CHAIRED BY EWA BULSKA**

- 11h30** 1729 Dorothy Parungao, António Candeias, Joao Lopes and Catarina Miguel  
*Are Infrared and Chemometrics up to the Tusk? On the Use of In-situ Infrared Spectroscopic Techniques for the Study of the Provenance of Historic Ivories*
- 11h45** 8045 Laurent Tranchant, Pierre Gueriau, Sebastian Schöder, Serge Cohen, Loïc Bertrand and Mathieu Thoury  
*Detecting visual and chemical modifications induced by the high-flux synchrotron X-ray analysis of ancient teeth*
- 12h00** 7832 Enrico Greco, Andrea Maria Gennaro, Daniela Costanzo, Dario Piombino-Mascali, Simona Accardo, Sabina Licen, Pierluigi Barbieri, Sara Signoretti, Caterina Gabriele and Marco Gaspari  
*Dental proteomic analyses reveal the sex of human remains from the Greek cemetery of San Giorgio Extra, Reggio Calabria (Italy)*
- 12h15** 4916 Leila Birolo, Georgia Ntasi, Andrea Carpentieri, Manuela Rossi, Schisano Chiara, Chiara Melchiorre, Miriam Alberico, Brunella Cipolletta, Giovanna Scarano and Alessandro Vergara  
*Ancient proteins: from identification to characterization. A review and the case of the funeral equipment in a Hellenistic young woman tomb from Battipaglia*
- 13h00** Lunch break (Building C7)

**SESSION S + A - WOOD + ANALYTICAL METHODS | CHAIRED BY DIEGO TAMBURINI**

- 15h00** 3189 Costanza Cucci, Juri Agresti, Giovanni Bartolozzi, Francesco Grazzi, Marcello Piccolo, Lorenzo Stefani, Teresa Brancolini, Giulia Basilissi and Anna Consonni - *Technical studies in Egyptology. Multi-modal imaging and multi-range spectroscopies shed light on a rare wooden polychrome chest*
- 15h15** 4882 Sveva Longo, Enza Fazio and Silvia Capuani  
*Non-destructive identification of wood from XVII Century panel painting using clinical X-ray computed tomography Hounsfield Units scale*
- 15h30** 8880 Chiara Ricci, Paola Buscaglia, Debora Angelici, Anna Piccirillo, Federica Pozzi, Paola Manchinu, Leila Es Sebar, Luca Lombardo, Sabrina Grassini, Federico Di Iorio, Sara Croci, Laura Vigo and Davide Quadrio  
*Aiding the conservation of two wooden Buddhist sculptures with 3D imaging and spectroscopic techniques*
- 15h45** 9209 Eva Hartlieb, Pascal Ziegler, Andreas Baumann, Peter Schöler and Peter Eberhard  
*Newly developed transportation frame for a fragile wooden panel painting*
- 16h00** 1910 Chiaramaria Stani, Claudia Invernizzi, Giovanni Birarda, Patrizia Davit, Lisa Vaccari, Marco Malagodi, Monica Gulmini and Giacomo Fiocco  
*Revealing new secrets behind the Stradivari's craftsmanship: an infrared investigation at the nanoscale.*
- 16h30** Coffee break
- 17h00** Poster session 4
- 18h30** Closing session

**FRIDAY 12TH | AZULEJO NATIONAL MUSEUM**

- 10H00** VISIT TO MNAZ  
**13H00**

## POSTER SESSIONS | PROGRAMME

## MONDAY 8TH | SESSION 1

N.	Authors	Title	ID
1	Silvia Macedo-Arantes, <u>M. Rosário Martins</u> , António Candeias and A. Teresa Caldeira	<i>Essential Oils/Cyclodextrin Inclusion Complexes as eco friendly antimicrobials for Cultural Heritage: an approach with essential oils of Mentha pulegium and Mentha spicata and Calamintha nepeta from Alentejo (Portugal)</i>	252
2	<u>Alberto Viani</u> , Dita Machová and Petra Máčová	<i>The assessment of state of conservation of bone material in the UNESCO World Heritage site of Sedlec, Czechia.</i>	302
3	<u>Máté Szarka</u> , Ákos Csepregi, Boglárka Dönczö, Zsófia Kertész, Anikó Agyal and Zita Szikszai	<i>Considerations for improved monitoring in ion beam analysis of organic heritage materials</i>	464
4	Forough Armal, Luis Dias, José Mirão, Vera Pires, Fábio Sítzia, Sérgio Martins, Mafalda Costa and <u>Pedro Barrulas</u>	<i>Multi-analytical study and assessment of commercial coating hydrophobic effectiveness and durability in carbonate stones – a case study of built heritage protection and preservation</i>	516
5	<u>Simone Murgia</u> , M. Carla Aragoni, Gianfranco Scarangiu, Veronica Caria, Paola Meloni, Anna Pintus, Enrico Podda and Massimiliano Arca	<i>Protection of carbonate stone samples via treatment with ammonium N-2-picolyloxamate</i>	550
6	<u>Inês Silva</u> , Cátia Salvador, Ana Miller, António Candeias and A. Teresa Caldeira	<i>Microbial induced stone discoloration in Alcobaça Monastery: a comprehensive study</i>	595
7	<u>Luisa Vigorelli</u> , Francesca Tansella, Alessandro Re, Laura Guidorzi, Miriana Marabotto, Sabrina Grassini, Gabriele Ricchiardi and Alessandro Lo Giudice	<i>Use of X-Ray imaging techniques for analysis in the Cultural Heritage field</i>	975
8	<u>Anna Fialová</u> , Jan Válek, Petr Kozlovce, Olga Skružná, Jana Maříková-Kubková, Iva Herichová, Dita Frankeová, Alberto Viani	<i>Characterization of mortars from Romanesque floors excavated in St. Bartholomew's church at Prague Castle</i>	1334
9	Anderson de Paula, Alessandra Machado, Olga Maria Araújo, Ricardo Lopes, <u>Davi Oliveira</u>	<i>Portable CT characterization for in situ analysis</i>	1382
10	<u>Aneta Gójska</u> , Ewelina Mišta-Jakubowska, Łukasz Kruszewski, Michał Przeździecki, Michał Paczkowski, Leszek Marynowski, Magdalena Wilczopolska, Ryszard Diduszko, K Pyżewicz, Tymoteusz Kosiński, Michał Szubski and Krystian Trela	<i>Thermal transformation of chalcedony artefacts from the Magdalenian site of Cmielów 95 "Maly Gawroniec" (Poland)</i>	1407
11	Águeda Sáenz-Martínez, <u>Marta Pérez-Estébanez</u> , Mónica Álvarez de Buergo, Margarita San Andrés	<i>Testing acid products thickened with xanthan gum for the removal of calcareous deposits on ceramics</i>	1493
12	<u>Jose. F. Garcia</u> , Raul Cabeza-Navarro, Pere Castanyer, Marc Bouzas, Josep Burch, Sònia Sentellas	<i>Identification of wine markers in ancient pottery using liquid chromatography coupled to tandem mass spectrometry (LC-MS/MS)</i>	1764
13	<u>Monica Dinu</u> , Lucian Cristian Ratoiu, Camelia Calin, Gerard Calin	<i>Statistical classification of LIBS and hyperspectral data for mapping the interventions on a historical building</i>	2034
14	Giulia Festa, Sebastiano Trusso, Massimo Bernava, Triestino Minniti, Claudia Scatigno, <u>Rosina Celeste Ponterio</u>	<i>Neutron Imaging and Machine Learning for data processing in cultural heritage</i>	2071
15	Clarisse Chavanne, Laurence de Viguerie, Romain Berraud-Pache, Christelle Souprayen, Sophie Rochut, Brunelle Alain, Philippe Walter, Maguy Jaber, <u>Emeline Pouvet</u>	<i>Operando monitoring of photo-ageing in hybrid material using a Cultural Heritage dedicated platform</i>	2129
16	<u>Idoia Etxebarria</u> , Marco Veneranda, Ilaria Costantini, Nagore Prieto-Taboada, Aitor Larrañaga, Cristina Marieta, Bruno De Nigris, Alberta Martellone, Valeria Amoretti, Gorka Arana, Juan Manuel Madariaga and Kepa Castro	<i>Searching for a new pozzolanic component for the formulation of compatible preservation mortars</i>	2280
17	<u>Graciela Ponce-Antón</u> , Maria Cruz Zuluaga, Giuseppe Cultrone, Luis Ángel Ortega, Ricardo Gómez-Val	<i>Multi-analytical characterization of 19-century bricks and plaster from the Church of Sant Rafael (Barcelona, Spain)</i>	2420
18	Giuseppe Capobianco, Daniela Isola, Luca Lanteri, Claudia Pelosi, Silvia Serranti, Oriana Trotta, Giuseppe Bonifazi	<i>Multi-technique approach to evaluate the effect and durability of biocides treatments on Peperino stone in the "Basilica San Francesco alla Rocca" (Viterbo, Italy)</i>	2940

19	<u>Laure Cazals</u> , Lauren Dalecky, Simo Huotari, Alessandro Mirone, Emmanuelle de Clermont-Gallerande, Christoph Sahle, Agnès Desolneux and Loïc Bertrand	<i>Spectral Denoising and Image Segmentation methods for the Processing of Inelastic X-ray Scattering and X-ray Raman Data</i>	3251
20	Patrícia Carvalho, Flávia Leite, Lara Carramate, Sofia Pessanha, Maria Luísa Carvalho, José Paulo Santos, João Veloso and <u>Ana Luísa Silva</u>	<i>Analysis of large area Portuguese Ceramic Samples using a Full-Field EDXRF Imaging System with MPGDs</i>	3470
21	<u>Luis Alves</u> and Victoria Corregidor	<i>Combining Ion Beam Analytical techniques for the characterization of cultural heritage materials</i>	3492
22	<u>Valeria Godoy</u> , Isabel Amaya-Torres, Francisca Márquez and Carmen Royo-Fraguas	<i>Conservation science to rescue the collective memory of the conflict. The case of General Baquedano's public monument at the 18-O Chilean Social Outburst</i>	3541
23	Mustafa Kansiz	<i>Non-contact Submicron O-PTIR and Simultaneous Raman microscopy with Fluorescence imaging – Review of Cultural Heritage Applications</i>	3671
24	<u>Ioana Corcea</u> , Alecsandru Chiroşca and Laurențiu Angheluță	<i>INFRA-ART Spectral Library: A New Open Access Infrastructure for Heritage Science</i>	3952
25	<u>Jorge Sanjurjo Sánchez</u> , Victor Barrientos and Juan Luis Montero Fenollós	<i>Characterisation of Iron Age pottery from the archaeological site of Tell el-Fara (Palestine)</i>	3979
26	Clarimma Sessa, <u>Eva M. Angelin</u> , Nadia Thalgiuter, Simon Mindermann, Randa Deraz, Rebecca Tehrani, Katja Lorenz, Hany Helal, Hector Bagán, Jose F. Garcia, Markuss Santner, Christoph Herm, Christoph Krekel, Marcello Picollo, Costanza Cucci, Christian Grosse, Marisa Pamplona, Heike Stege and Thomas Danzl	<i>insiTUMlab: the new analytical infrastructure for non-destructive in-situ studies of Cultural Heritage</i>	4011
27	<u>Dâmnia Carina Dias Do Carmo</u> , Pérsida Omena Ribeiro, Selma Otília Gonçalves da Rocha, Alessandra Rosado and Luiz Antônio Cruz Souza	<i>Well preserved rare red glazes in Brazilian Baroque Polychrome Sculptures: Characterization and Conservation</i>	4071
28	Ainhua Ainhua Alonso-Olazabal, Iosu Etxezarraga Ortuondo, Luis Angel Ortega, <u>Maria Cruz Zuluaga</u> and Ana Martínez Salcedo	<i>New insights of manufacturing tradition of roof tiles from Basque Country, north of Iberian Peninsula</i>	4083
29	<u>Bilyana Kostova</u> , Boyan Dumanov and Katerina Mihaylova	<i>Archaeological bricks and tiles from Southeast Bulgaria - determination of production technology by methods of archaeological chemistry</i>	4146
30	Marcus Vinicius Oliveira Andrade, <u>Dâmnia Carina Dias Do Carmo</u> , Alessandra Rosado and Luiz Antônio Cruz Souza	<i>GOIA Project – An initiative between the Federal Police and Universities in Brazil against Crimes involving Cultural Property and Works of Art</i>	4375
31	Raysa Nardes, Francis Sanches, Ramon Santos, Hamilton Gama Filho, Eliane Zanatta, Renato Freitas, Roberta Leitão, Catarina Leitão, Davi Oliveira, Ricardo Lopes, Joaquim Assis and <u>Marcelino Anjos</u>	<i>Pigment identification in a 19th century carriage by non-destructive analytical techniques</i>	4549
32	<u>Vera Hubert</u> , Charlotte van de Walle, Erwin Hildbrand, Tiziana Lombardo and Katharina Schmidt-Ott	<i>Evaluation of handheld XRF for the assessment of biocide contamination in cultural heritage objects</i>	4587
33	Suset Barroso-Solares, Elvira Rodríguez-Gutiérrez, Carlos Sanz-Minguez, Javier Pinto and <u>Eusebio Solórzano</u>	<i>X-ray microtomography: unveiling hidden information from historical and cultural heritage</i>	4600
34	Ewa Bułska	<i>Analytical scenario for the investigation of Machu Picchu cultural heritage in Peru</i>	4798
35	<u>Federica Nardella</u> , Alessio Giannaccini, Marco Mattonai, Jacopo La Nasa, Gloriana Pace, Andrea Camilli and Erika Ribechini	<i>Development and optimization of organic residue analysis methods in potsherds from “Cantiere delle Navi Antiche di Pisa”</i>	5018
36	<u>Idoia Etxebarria</u> , Marco Veneranda, Iñaki Vazque de la Fuente, Iliaria Costantini, Nagore Prieto-Taboada, Giuseppe Di Girolami, Ángela Di Lillo, Marina Caso, Rossella Di Lauro, Mario Notomista, Gorka Arana, Juan Manuel Madariaga and Kepa Castro	<i>Selecting a tuff from the Italian active quarries for future restoration works at the Archaeological Park of Herculaneum</i>	5236
37	<u>Dzemila Sero</u> , Frans Pegt, Bodill Lamain, Bieke van der Mark, Isabelle Garachon, Erma Hermens and Kees Joost Batenburg	<i>Analyzing epidermal ridge impressions and tool marks on Rijksmuseum terracotta sculptures</i>	5405
38	<u>Pattra Lertsarawut</u> , Weerawat Pornroongruengchok, Sarinrat Wonglee, Sakchai Laksee, Thitirat Rattanawongwiboon, Kasinee Hemvichian	<i>Characterization and consolidation of wooden artifacts by radiation-assisted curing of HPMA for wood preservation</i>	5594

39	<a href="#">Silvia Pizzimenti</a> , Tomas Markevicius, Alessia Andreotti, Anton Nikiforov, Nina Olsson, Agnieszka Suliga, Gianluca Pastorelli, Nan Yang, Geert Van der Snickt, Klaas Jan van den Berg, Dieuwertje Schrijvers, Jurate Markeviciene, Ilaria Bonaduce	<b>MOXY project: preliminary investigation of a non-contact cleaning of some typical art materials using atomic oxygen</b>	5672
40	<a href="#">Simon Brenner</a> , Hans Clausen, Gerlinde Schneider, Ivana Dobcheva, Wilfried Vetter, Manfred Schreiner, Robert Sablatnig	<b>A Repository for Storage, Linking and Dissemination of Multidisciplinary Manuscript Research Data</b>	5684
41	<a href="#">Federica Nardella</a> , Jacopo La Nasa, Ilaria Degano, Francesca Modugno, Ana-Maria Gruia, Ioana Cova, Andrea Beatrix Magó, Márta Guttmann, Erika Ribechini	<b>A multi-analytical approach to disclose the composition of 18th century ointments from the "History of Pharmacy Collection" in Cluj</b>	5803
42	<a href="#">Luminita Ghervase</a> , Monica Dinu, Victoria Atanassova, Ioana Gomoiu	<b>Monitoring the outcome of new biocleaning methods with the help of spectroscopic techniques</b>	5835
43	<a href="#">Gael Latour</a> , Giulia Galante, Maëlle Vilbert, Céline Bonnot-Diconne, Laurianne Robinet and Marie-Claire Schanne-Klein	<b>In situ non-invasive measurement of varnish thickness on historical artefacts by line-field confocal OCT</b>	5991
44	<a href="#">Mihaela-Doina Niculescu</a> , Lucretia Miu, Emanuel Vacalie and Cristina Carsote	<b>Multi-analytical Evaluation of Glues Obtained from Various Types of Hides and Skins</b>	6130
45	Anastasios Asvestas, Emmanuel Kechaoglou, Dimosthenis Chatzipanteliadis, Theofanis Gerodimos, Georgios P. Mastrotheodoros, Konstantina Athanasia Agrafioti, Anastasia Tzima, <a href="#">Mareike Gerken</a> , Roald Tagle, Aristidis Likas, Konstantinos Kosmidis and Dimitrios Anagnostopoulos	<b>MA-XRF AND LIBS INVESTIGATION OF GREEK RELIGIOUS ICONS</b>	6132
46	<a href="#">Maria Cruz Zuluaga</a> , Céline Rémazeilles, Abdelali Oudriss, Egle Conforto, Haizea Portillo, Luis Angel Ortega, Ainhoa Alonso-Olabazabal and Juan José Cepeda-Ocampo	<b>A metallurgical study to the understand the manufacturing process of iron nails from the archaeological site of Loiola (Vizcaya, Northern Spain)</b>	6245
47	<a href="#">Vaclav Krupicka</a> , Julie Arslanoglu and Caroline Tokarski	<b>Top-Down MS: the next frontier in MS proteomic analysis of cultural heritage samples?</b>	6275
48	<a href="#">Weronika Machowicz-Musiał</a> , Elżbieta Szmit-Naud, Wojciech Kujawski and Joanna Kujawa	<b>Attempts to use head space gaschromatography to determine solvent retention in easel painting paint layers subjected to conservation treatments</b>	6601
49	Sarinrat Wonglee, <a href="#">Weerawat Pornroongruengchok</a> , Pattra Lertsarawat, Sutasinee Kotayee and Piyanut Thongjerm	<b>Preliminary study of irradiation effect on polymer-impregnated wood for cultural heritage preservation using neutron imaging</b>	6803
50	<a href="#">Alberto Viani</a> , Dita Machová, Petra Mácová	<b>Quantitative approach to the conservation of bone collections by means of solid state NMR spectroscopy.</b>	7065
51	Victor Gonzalez, Marine Cotte, <a href="#">Frederik Vanmeert</a> , Letizia Monico, Catherine Dejoie, Manfred Burghammer, Wout de Nolf, Loic Huder, Ida Fazlic	<b>The Heritage "BAG" at the European Synchrotron Radiation Facility: a new collaborative access modality for the structural analysis of historical materials</b>	7198
52	Ana Cristina Hernández Santomé, <a href="#">Jorge Sanjurjo Sánchez</a> , Carlos Alves	<b>Use of hand-held gamma-ray spectrometry to assess decay of granite buildings of a coastal area of NW Spain (Barbanza, Galicia)</b>	7214
53	<a href="#">Luminita Ghervase</a> , Ioana Maria Cortea, Lucian Cristian Ratoiu	<b>New ways of assessing biodeteriogens in cultural heritage</b>	7968
54	Alessandro Re, <a href="#">Miriana Marabotto</a> , Luisa Vigorelli, Andrea Alessio, Laura Guidorzi, Chiara Donazzolo, Alessandro Lo Giudice, Federico Picollo, Marco Truccato	<b>A multi-technique setup based on a liquid anode X-ray source for the non-invasive characterization of materials</b>	7998
55	Theofanis Gerodimos, John Pavlopoulos, Anastasios Asvestas, Georgios P. Mastrotheodoros, Aristidis Likas, Dimitrios Anagnostopoulos	<b>Artificial intelligence for the analysis of macroscopic X-ray fluorescence data in cultural heritage</b>	8039
56	<a href="#">Jolanda van Iperen</a> , Isabelle Garachon, Margot van Schinkel, Annelies van Hoesel, Neha Verma, Femke Diercks and Katrien Keune	<b>The White Glaze of Delft Blue. Variations in composition in its glory period, from 1625 to 1800.</b>	8237
57	<a href="#">Sveva Longo</a> , Federica Egizi, Valeria Stagno, Maria Giovanna Di Trani, Gianni Marchelletta, Tommaso Gili, Enza Fazio, Gabriele Favero and Silvia Capuani	<b>Magnetic Resonance Imaging clinical scanner for archaeological waterlogged wood investigations</b>	8304
58	<a href="#">Victoria Corregidor</a> , Norberto Catarino, Carlos Cruz, João Cruz and Luís C. Alves	<b>Reflective Transformation Imaging technique with visible, infrared and ultraviolet light</b>	8675



59	Silvia Vettori, Emma Cantisani, Francesca Giannetti, Riccardo Avanzinelli, Eleonora Braschi, Marta Casalini, Antonio Langone, Carlo Virili, Alessandro M. Jaia and Alessandro Zanini	<i>Multi-methodological approach from non-invasive to micro-destructive techniques for the characterization of Final Bronze Age vitreous materials: Paduli site (Colli sul Velino, Rieti) in central Italy</i>	8688
60	David M. Freire-Lista, Ana J. López Díaz, Alberto Ramil, Said Jalali and Eunice Salavessa	<i>Construction Phases, Characterisation of Granite Ashlars and Frescoes Pigments of St. Leocadia Church (Chaves, Galicia-North of Portugal Euroregion)</i>	8704
61	Ákos Török and Szilárd Papp	<i>Characterization and provenance analysis of Gothic stone sculptures, the use of petrography in the reassembling of fragmented stone sculptures</i>	8866
62	Victory A. J. Jaques, Jan Petřík, Karel Slaviček, Katarína Holcová, Kateřina Vaňatková, Marta Kerkhoff, Tomáš Zikmund and Jozef Kaiser	<i>X-Ray Computed Tomography For Natural And Cultural Heritage Objects: A matter of size and contrast</i>	9124
63	Lucretia Miu, Emanuel Vacalie, Mihaela Niculescu, Roxana Constantinescu and Nicolae Catrina	<i>Study on Behaviour of Gilded Wood to Artificially Ageing</i>	9303
64	Maja Gajic Kvascev, Veljbor Andrić and Aleksandar Bulatović	<i>The newest metal findings from the Early Eneolithic house in South-eastern Serbia</i>	9480
65	Hernán Fernández García, Koen Janssens and Piet Van Espen	<i>ATLAS, a versatile MA-XRF imaging spectrometer and its applications</i>	9680
66	Oğuz Emre Kayser, Merve Mina Çetintürk and Osman Eşki	<i>Use of Mobile All in One Multispectral Devices in the Analysis of Artworks</i>	9841
67	Yaowen Zhu, Yonghao Zhou, Zhenkai Chen, Wenjing Zhou and Yingjie Yu	<i>Digital Speckle Interferometry coupled with photoacoustic for detecting defects under different depth</i>	3901
68	Zhenkai Chen, Wenjing Zhou, Hongbo Zhang, Liang Qu, Guanghua Li and Yingjie Yu	<i>Identification of Mural Damages with Laser Holographic Speckle Interferometry with Acoustic Excitation</i>	4249
69	Frederik Vanmeert, Alba Alvarez Martin, Julien Volper, Koen Janssens and Siska Genbrugge	<i>Multi-analytical characterization of Woyo masks</i>	9891
70	Tiziana Cavaleri, Chiara Ricci, Claudia Pelosi, Stefano Laureti, Rocco Zito, Federico Di Iorio, Alessandro Re, Federica Pozzi and Marco Ricci	<i>A new model for radiographic image processing in painting investigation</i>	3964
<b>TUESDAY 9TH   SESSION 2</b>			
1	Boglárka Dönczö, Marianna Bálint, Barbara Kolozsi, Tamara Hága and Zita Szikszai	<i>Comparative study of objects from the Hungarian Conquest period of Hajdú-Bihar County, Hungary</i>	5456
2	Weronika Patrycja Polańska, Lavinia de Ferri, Calin Constantin Steindal and Knut Ivar Austvoll	<i>Preliminary investigation of the production technology of Norwegian Bronze Age ceramics</i>	129
3	Benedetta Vitale, Eliano Diana, Angelo Agostino, Marco Guglielminotti Trivel and Carolina Orsini	<i>Scientific investigations of Tang Dynasty pottery figurines</i>	605
4	Davi Oliveira, Francis Sanches, Ramon Santos, Alessandra Machado, Roberta Leitão, Olga Maria Araujo, Catarine Leitão, Marcelino Anjos, Joaquim Assis and Ricardo Lopes	<i>Characterization of a terracotta Indian sculpture through microCT and XRF techniques</i>	706
5	Giulia Franceschin, Roberta Zanini, Francesco Abate, Gianluca Iori, Elena Longo, Luisa Vigorelli, Lara Chiaberge, Luisa Guidorzi, Alessandro Re, Alessandro Lo Giudice and Arianna Traviglia	<i>Laboratory and synchrotron x-ray computed microtomography to investigate corroded Roman glass</i>	1186
6	Madoka Murakushi, Yoshinari Abe, Chisato Kato, Makiko Fukushima, Izumi Nakai	<i>Non-destructive and on-site X-ray fluorescence analysis of national treasure glass beads from Okinoshima Island, Japan</i>	2610
7	Josef Hormes, Lisa Langlois, Wantana Klysubun, Sveva Gai, Norbert Börste, Markus Kleine	<i>Ancient glass samples from the Cathedral in Paderborn: an investigation using synchrotron radiation based techniques</i>	2878
8	Mitra Almasian, Erma Hermens, Nathan Daly, Paul van Laar and Marcia Vilarigues	<i>An interdisciplinary approach to the making of enamels: multimodal imaging of historical processes and materials</i>	3304
9	Silvia Vettori, Davide Romoli, Teresa Salvatici, Valentina Rimondi, Elena Pecchioni, Sandro Moretti, Marco Benvenuti, Pilario Costagliola, Beatrice Agostini and Francesco Di Benedetto	<i>Non-Invasive SWIR Monitoring of White Marble Surface of the Cathedral of Santa Maria del Fiore (Florence, Italy)</i>	3493
10	Elena Platania, Silvia Garrappa and Christina Spaarschuh	<i>Characterization of secondary products in a late-medieval alabaster relief from the church of Lade (Norway)</i>	4732

11	<a href="#">Ana Saraiva</a> , Mathilda Coutinho, Joaquina Soares, Carlos Tavares da Silva and João Pedro Veiga	<i>Preliminary results of archaeometric analysis of Chalcolithic ceramic from Charneca de Fratel (Vila Velha de Ródão, Portugal)</i>	6193
12	<a href="#">Bilyana Kostova</a> , Boyan Dumanov, Zhivko Uzunov and Katerina Mihaylova	<i>Chemical, phase, and thermal characterization of Roman and Late Antique clay wall plasters</i>	6447
13	Valentina Lončarić, Pedro Barrulas, Ana Margarida Arruda, Esther Rodríguez González, Sebastián Celestino Pérez and <a href="#">Mafalda Costa</a>	<i>Glass in the Southwestern Iberian Peninsula during the Iron Age – the case study of Casas del Turuñuelo (Guareña, Badajoz, Spain)</i>	6466
14	<a href="#">Amelia Suzuki</a> , Emma Cantisani, Marilena Ricci and Silvia Vettori	<i>Combined use of Synchrotron based X-ray techniques and micro-Raman spectroscopy for Pb compounds mapping of red stains in heritage marbles</i>	3735
15	<a href="#">Yoshinari Abe</a> , Madoka Murakushi, Hiroshi Shiino, Hiroki Nagai, Yoshihide Nakajima	<i>Introduction of a new silicon drift detector equipped with graphene window to a portable X-ray fluorescence spectrometer and application on nondestructive and onsite analysis of historical glass artifacts</i>	7206
16	<a href="#">Marta Magalini</a> , Laura Guidorzi, Luisa Vigorelli, Riccardo Quaranta, Erika Fissore, Toshi Nozaka, Akira Seike, Joseph Ryan, Jun Mitsumoto, Naoko Matsumoto, Monica Gulmini, Alessandro Lo Giudice, Alessandro Re	<i>Micro-Computed Tomography applied to the study of Japanese pottery</i>	7332
17	Nikolaos Zacharias	<i>A Technological and Provenance Study of LBA Glass from Thessaly, Greece: The Profitis Elias Kompotades Cemetary</i>	7646
18	<a href="#">Massimo Beltrame</a> , Ginevra Coradeschi, Ana Manhita, Sergio Martins, Cristina Barrocas Dias, Simona Rafanelli, José Mirão	<i>What was stored inside the big ceramic containers of the Domus dei Dolia at Vetulonia (Italy)</i>	7816
19	<a href="#">Elena Platania</a> , Calin Steindal, Tone Olstad	<i>Multi-analytical investigation of the glass-based pigment of the Kinn altarpiece (Norway)</i>	7939
20	Mareike Gerken, Christian Hirschle, Andrew Menzies, Falk Reinhardt, Kathrin Schneider, <a href="#">Roald Tagle</a>	<i>Ceramics quantification: Exploring potentials of XRF for a fast and reliable workflow</i>	7973
21	<a href="#">Roberta Zanini</a> , Valentina Risdonne, Francesco Abate, Lucia Noor Melita, Reino Liefkes, Lucia Burgio and Arianna Traviglia	<i>Portable XRF to assess glass alteration in museum settings: advantages and limitations</i>	1807
22	Mareike Gerken, Christian Hirschle, Andrew Menzies, Falk Reinhardt, Kathrin Schneider, <a href="#">Roald Tagle</a>	<i>Quantification of Cultural Heritage objects: From glasses to metals</i>	2717
23	<a href="#">Malgorzata Walczak</a> and Edyta Bernady	<i>Non-invasive study of baroque Silesian glasses from museum collections in Poland.</i>	9129
24	<a href="#">Catarina Reis Santos</a> , Andreia Ruivo and Inês Coutinho	<i>The study of the Portuguese glass arcana with the tools of the future</i>	9298
25	<a href="#">Elena Badea</a> , Cristina Carsote, Ilaria Quaratesi, Irina Petroviciu, Lucretia Miu, Noemi Proietti and Valeria di Tullio	<i>STUDY OF A COLLECTION OF CHANCELERY PARCHMENT DOCUMENTS OF 600-YEAR-OLD</i>	101
26	<a href="#">Mareike Gerken</a> , Michele Girona, Christian Hirschle, Andrew Menzies, Falk Reinhardt, Kathrin Schneider and Roald Tagle	<i>Colored journals: An insight to 19th century printing materials by means of micro-XRF</i>	244
27	<a href="#">Efstathia Tsioufi</a> , Vasiliki Kokla, Anna-Arietta Revithi and Athanasios Karampotsos	<i>Studying color engravings of 19th century. Case study: engravings of the book “Histoire Naturelle des Perroquets” belongs to the Library of the Greek Parliament</i>	306
28	<a href="#">Alessia Coccato</a> , Germana Barone, Paolo Mazzoleni and Jonathan Prag	<i>First insights on the rubrication of Sicilian inscriptions:</i>	350
29	Francesca Assunta Pisu, Tullia Carla David, Stefania Porcu, Pier Carlo Ricci, Carlo Maria Carbonaro, Jarmila Kodric and Daniele Chiriu	<i>Preliminary study on the effects of salinity on ancient paper by optical techniques</i>	381
30	<a href="#">Sophie Vullings</a> , Marco Roling and Ana Martins	<i>Identifying, Organizing and Managing Scientific Research Assets at the Van Gogh Museum</i>	4013
31	<a href="#">Juliana Bittencourt</a> , Wanda Engel and Márcia Rizzutto	<i>Identification of photographs’ constitutive materials as a contribution to their historical study</i>	4635
32	<a href="#">Elena Gonzalez</a> , Consuelo Imaz, Ana Albar and Maria Antonia Garcia	<i>CHARACTERIZATION OF MATERIALS CONSTITUTING METAL ACID INKS BY GAS-MASS CHROMATOGRAPHY AND SCANNING ELECTRON MICROSCOPY</i>	5396

33	<u>Yun Liu</u> and Lieve Watteeuw	<i>Characterising the degradation of green colourants on early printed and hand-coloured works on paper</i>	3712
34	<u>Cecilia Rossi</u> , Alfonso Zoleo, Rosa Costantini, Patrizia Tomasin, Luca Nodari, Rita Deiana	<i>Pigments, Dyes, Inks and Binders in a medieval illuminated Psalter: a non-invasive characterization</i>	7083
35	<u>Marco Gargano</u> , Giacomo Fiocco, Nicola Ludwig, Jacopo Melada, Marco Malagodi, Tommaso Rovetta	<i>Seeing the invisible: unveiling degraded World War I diary of the writer C. E. Gadda through an innovative approach</i>	7170
36	<u>Tsun-Kong Sham</u> , Zou Finrock, Qunfeng Xiao, Renfei Feng	<i>Retrieving images from badly tarnished daguerreotypes using tunable X-rays: recent observations</i>	7401
37	<u>Ermioni Vassiou</u> , Dimitra Lazidou, Elina Kampasakali, Eleni Pavlidou, John Stratis	<i>Analytical SEM-EDS and <math>\mu</math>-Raman study of iron gall ink mockups degradation reproduced by historic Greek recipes</i>	7706
38	<u>Marcia de Almeida Rizzutto</u> , Juliana Bittencourt Bovolenta, Wanda Gabriel Pereira Engel, Lucia Thome, Ana M. C. Scaglianti, Monica Aparecida Guilherme da Silva Bento, Daniela Piantola	<i>Imaging and material characterisation of the incunabula Liber Chronicarum from the University of São Paulo: a multi-analytical approach</i>	7792
39	<u>Silvia Bottura Scardina</u> , Francesca Gabrieli, Leila Sauvage, Katrien Keune, Catarina Miguel, Catarina Barreira	<i>Characterising paints in illuminated manuscripts with in-situ reflectance spectroscopy (ER-FTIR and UV-Vis-NIR FORS). Azurite and malachite as a case study.</i>	8004
40	<u>Nathan Daly</u> , Henrietta Ward and Erma Hermens	<i>Assessing attribution and artist materials and methods of botanical drawings using non-invasive technical analysis</i>	8247
41	Julia Chlebowska, <u>Aleksandra Towarek</u> , Ludwik Halicz, Anna Czajka and Barbara Wagner	<i>Step by step: Modelling as a first key to introduce an indirect method of studying heritage inks</i>	8319
42	<u>Malihe Sotoudeh</u> , Paula Nabais, Vanessa Otero and Maria João Melo	<i>The Explanation of Crafts: multi-analytical characterization of iron-gall inks prepared following a 12th-century Persian treatise</i>	9881
43	<u>Catarina Tibúrcio</u> , Silvia Bottura-Scardina, Catarina Miguel, Sara Valadas, Ana Cardoso and Catarina Barreira	<i>Assessing the existence of a late-medieval royal scriptorium in Lisbon: a multi-analytical characterisation of 15th-century Portuguese illuminated court manuscripts</i>	8207
44	<u>Lieve Watteeuw</u> , Hendrik Hameeuw, Marina Van Bos and Maaike Vanderpe	<i>Art-Technical Analysis of a 14th century illuminated Neapolitan Bible with a diverse toolbox of analytical and imaging tools. Documentation and discoveries</i>	8309
45	Margarida Nunes, Vitoria Corregidor, Luís Cerqueira Alves, Bruno J.C. Vieira, João Carlos Waerenborgh, Scott G. Mitchell, Ana Claro and <u>Teresa Ferreira</u>	<i>A multi-instrumental approach for studying the writing ink of a 17th-century Portuguese Codex</i>	8599
46	Adele Ferretti, <u>Francesca Sabatini</u> and Iliaria Degano	<i>Linking historical recipes and ageing mechanisms: the issue of iron gall inks</i>	9256
47	<u>Jose F. Garcia</u> , Georgios Magkanas, Inés Acevedo, Hector Bagán, Teresa Palomar, Paloma Pastor, Maria Carmen Sistach and Javier Saurina	<i>Artomics: integration of compositional and formal characteristics in the study of artworks. Application to an illuminated cartulary and high-quality glass pieces.</i>	9374
48	Sylvia Lycke, Annelien Vandenabeele, Anastasia Rousaki, Silvia Bottura-Scardina, Catarina Pereira Miguel, Antonio Candeias and <u>Peter Vandenabeele</u>	<i>Reducing Raman Spectroscopic Interferences when Analyzing Weak Scatterers: the Case of Parchment</i>	8620
49	<u>Maria João Penetra</u> , Catarina Miguel and Ana Teresa Caldeira	<i>To be or not to be - On the use of biosignatures approaches for the analysis of parchment origin</i>	1225
50	<u>João Cruz</u> , Victoria Corregidor, Sara Valadas, Ana Margarida Cardoso, José Mello and Catarina Miguel	<i>In-situ non-invasive characterization of Sephardic Torahs from Ponta Delgada, Azores</i>	316
51	<u>Lucie Arberet</u> , Anne Michelin, Witold Nowik, Alain Tchaplá, Sylvie Héron and Christine Andraud	<i>Molecular characterization of the Mesoamerican traditional dye extracted from the Justicia spicigera plant</i>	330
52	<u>Francis Melvin Lee</u> , Marcia Rizzutto, Wanda Engel	<i>Non-invasive characterization of the first papers produced in Rio de Janeiro (Brazil) in 1809</i>	1017
53	<u>Rana Al Ali</u> , Mohamed Dallel, Elhem Ghorbel, Boumediene Nedjar	<i>Studying the creep behavior in historical tapestries to assess their conservation: Experimental investigation using Digital Image Correlation technique</i>	2464

54	<u>Ludovico Geminiani</u> , Cristina Corti, Barbara Giussani, Giulia Gorla, Moira Luraschi, Laura Rampazzi	<i>Analytical investigation into silk from traditional Japanese samurai armours</i>	2821
55	Karolina Skóra, Aldona Stepień, Agnieszka Kwiatkowska, <u>Julio M del Hoyo-Meléndez</u>	<i>Metal thread lace: Scientific identification methods as a source of information on manufacturing techniques of historical haberdashery</i>	2854
56	<u>Manuel Greco</u> , Luca Senni, Emilio Giovenale, Andrea Taschin, Andrea Doria and Fabio Leccese	<i>Moisture detection under leather panels using THz imaging</i>	3774
57	<u>Graciela Ponce-Antón</u> , Christian Grenier and Jorge Otero	<i>A pigmented lime plaster consolidation with an ethyl silicate and calcium hydroxide based consolidant: an experimental approach</i>	4433
58	<u>María Vega Cañamares</u> , and Aroa Garcia-Suarez	<i>Characterization of architectural plasters and pigments from the Neolithic site of Çatalhöyük by micro-Raman spectroscopy</i>	4592
59	<u>Woon Lam Ng</u> and Huanlong Hu	<i>Study of Foxing on Watercolor Paper</i>	4695
60	<u>Woon Lam Ng</u> and Huanlong Hu	<i>Design and Study of Cost-effective Method for the Conservation of Watercolor Paper</i>	5079
61	Sowmeya Sathiyamani, Olivier Bonnerot, Peera Panarut, Silpsupa Jaengsawang and Claudia Colini	<i>Material Characterization of 19th century manuscripts from Northern Thailand</i>	5105
62	<u>Lynn Chua</u> , Edwin Zhi Wei Ting, Xu Mei Phua, Miki Komatsu	<i>Unravelling The Fading Pink Dye In Peranakan Textiles using SERS and LC-MS</i>	5682
63	<u>Diego Tamburini</u> , Zeina Klink-Hoppe and Blythe McCarthy	<i>New insights into the dyes of 19th-century Central Asian ikat textiles</i>	5934
64	<u>Alina Krotova</u> , Chiara Vettorazzo, Ida Kraševc, Matija Strlič, Eva Menart, Kim Verkens, Geert Van der Snickt, Natalia Ortega Saez and Koen Janssens	<i>pXRF screening of damaged silks in museum collections</i>	3691
65	<u>Lavinia de Ferri</u> , Beatrice Campanella, Davide Vallotto, Alice Martignon, Stefano Legnaioli, Benedetta Tomaini and Giulio Pojana	<i>Application of spectroscopic and imaging techniques for the study of historical natural dyes.</i>	3792
66	Federico Grillini, <u>Lavinia de Ferri</u> , George Alexis Pantos, Sony George	<i>Non-invasive study of pre-Columbian textiles combining Multi and Hyperspectral imaging</i>	7003
67	<u>Catarina Monteiro Pinto</u> , Catia Clementi, Francesca Sabatini, Iliaria Degano, Aldo Romani, J. Sérgio Seixas de Melo	<i>Shikonin: a photochemical study in solution and in the solid state of a dye of the Nara period (8th century)</i>	7710
68	Monika A. Koperska, Jacek Bagniuik, Małgorzata M. Zaitz-Olsza, Katarzyna Gassowska, Maciej Sitarz, Ewa Bulska and Joanna Profic-Paczkowska	<i>Ex situ and in situ approach to evaluating crystallinity of Bombyx mori silk fibroin during artificial thermo-ageing.</i>	9310
69	<u>Lucía Pereira-Pardo</u> , Jiitske Jasperse, Ana Cabrera Lafuente, Paul Dryburgh, Edith Sandstroem, Lore Troalen, Margherita Longoni, Silvia Bruni, Sau Fong Chan, Valentina Risdonne, Lucia Burgio, Sotiria Kogou and Adam Gibson	<i>The Woven Archive. Material Characterization of Textile Collections in Archives and Libraries</i>	9648
70	<u>Lena Bassel</u> and Aliz Simon	<i>IAEA fosters the development and applications of accelerator-based analytical techniques for Heritage Science.</i>	5528
71	<u>Lena Bassel</u> , Bernard Gely, Alain Queffelec, Alessandro Migliori, Benjamin Gallard and Catherine Ferrier	<i>Characterization of black deposits inside the ornate Palaeolithic Ebbou cave, Ardèche, France.</i>	3643
<b>WEDNESDAY 10TH   SESSION 3</b>			
1	<u>Ana Machado</u> , Sara Valadas, Teresa Reis, Peter Vandenabeele, Ana Teresa Caldeira, Kishore Ragubans and António Candeias	<i>Revealing layers of the past in Old Goa Vice-Roy Portraits Gallery (India): a new approach by macro-XRF scanner</i>	100
2	Anna Piccirillo, <u>Paola Buscaglia</u> , Federica Pozzi, Claudia Caliri, Francesco Paolo Romano, Danilo Paolo Pavone, Eva Luna Ravan, Claudia Conti, Maria Catrambone, Costanza Miliani, Iliaria Degano, Alessia Andreotti, Federica Nardella, Marco Samadelli, Alice Paladin, Roberta Genta, Michela Cardinali and Daniela Picchi	<i>An Egyptian mummy of the Roman period with a painted shroud: a multi-analytical study of its technical features</i>	171
3	<u>Alessandra Botteon</u> , Claudia Conti, Chiara Colombo, Maria Catrambone, Marco Realini, Sotiria Kogou, Chi Shing Cheung, Haida Liang and Antonio Sansonetti	<i>Non-invasive advanced investigation of Leonardo's mural painting in Sala delle Asse</i>	196
4	<u>Catherine Defeyt</u> , Morgane Legeard and David Strivay	<i>Blockx oil paintings: archives and historical materials</i>	238

5	<u>Meropi Katsantoni</u> and Theodore Ganetsos	<i>Study of the wall paintings with spectroscopic techniques for the determination of their decaying products on the hermitage Holy Cross on Olympus, Greece</i>	291
6	<u>Cristina Carsote</u> , Elena Badea, Dumitrita Daniela Filip and Nicoleta Cioatera	<i>Comparative study of two sets of icons from Museikon Museum (Romania) for identifying evidences of Russian Religious Art Transfer in Transylvania</i>	292
7	<u>Catarina Miguel</u> , Alejandra Perez, Silvia Bottura-Scardina, Ana Teresa Caldeira, Pedro Flor and António Candeias	<i>ROADMAP – Research On António De Holanda Miniatures Artistic Production</i>	439
8	<u>Enrique Manuel Alonso Villar</u> , Giulia Pellis, Teresa Rivas, José Santiago Pozo Antonio and Dominique Scalarone	<i>Ageing of paints used in urban art murals: an approach in the identification of pigments and their influence in the fading of the artworks</i>	497
9	<u>Marziyeh Salimi</u> , Astrid Tazzioli, Ariane Pinto, Jean-Paul Berthet, Quentin Lemasson, Laurent Pichon, Brice Moignard, Ian Vickridge, Claire Pacheco and Anne-Solenn Le HÔ	<i>Towards IBA characterisation of gilding on european paintings</i>	692
10	Vittoria Bruni, Edoardo Colonna, <u>Anna Candida Felici</u> , Gianluca Mazzei, Candida Moffa, Annalisa Pascarella, Francesca Pelosi, Francesca Pitolli, Fabio Porzio and Domenico Vitulano	<i>Non-invasive investigation of three paintings attributed to Cavalier d'Arpino by means of ED-XRF, FORS and Multispectral Imaging</i>	797
11	<u>Marta Pérez-Estébanez</u> , Susanna Marras, Ruth Chércoles, María Antonia García, Silvia García, Sonia Santos, Margarita San Andrés	<i>The formation of metal soaps in oil paintings under variable relative humidity followed by ATR-FTIR</i>	1405
12	Silvia Pérez-Diez, Francesco Caruso, Elena Frine Nardini, Martin Stollenwerk, <u>Maité Maguregui</u>	<i>Characterization of original organic binding media and restoration products in Pompeian wall paintings</i>	1476
13	<u>Vanessa Antunes</u> , Sara Valadas, Miriam Pressato, António Candeias, José Mirão, Ana Cardoso, Sofia Pessanha, Maria Luisa Carvalho	<i>Enlightening the darkness: Sevillian influence in Obidos workshop studied by analytical techniques</i>	1530
14	<u>Monica Dinu</u> , Luminița Ghervase, Ioana Maria Cortea, Lucian Cristian Ratoiu, Laurențiu Marian Angheluşă, Sister Serafima Samoilescu	<i>Multi-analytical approach for investigation of the hidden layers in a post-byzantine icon</i>	1562
15	<u>Roberta Iannaccone</u> , Sara Lenzi, Gabriella Gasperetti, Stefano Giuliani, Antonio Brunetti	<i>The characterization of roman wall painting fragments. An insight into pigments and materials in roman Sardinia (Italy)</i>	1848
16	Alexandra Lauw, Maria Mayer, <u>Vanessa Antunes</u> ,	<i>Tracing the Roots of a Painting: A Dendrochronology Analysis of Materials and Techniques</i>	
17	<u>Alessia Di Benedetto</u> , Marta Ghirardello, Alessia Candeo, Cristian Manzoni, Gianluca Valentini, Laurent Pichon, Thomas Calligaro, Daniela Comelli	<i>Time-resolved hyperspectral imaging to detect faint luminescent pigments in paintings</i>	1932
18	<u>Lucile Brunel-Duverger</u> , Paola Buscaglia, Tiziana Cavaleri, Emeline Pouyet, Laurence de Viguerie	<i>SWIR spectral contributions in varnished paintings</i>	1974
19	Marina Palma Prieto, Sonia Santos Gómez, <u>Marta Pérez Estébanez</u> , Jose Manuel De la Roja De la Roja, Carmen Ahedo Pino	<i>Evaluation by FTIR-ATR of the efficacy of mucilages hydrogels in removal a natural adhesive (gacha) from the reverse side of a canvas</i>	2010
20	Joanna Zwinczak	<i>Analytical photography and macro-XRF scanning as tools in the investigation of the Lusina polyptych side-wings</i>	2318
21	<u>Thomas Mafredas</u> , Stamatios Boyatzis, Yorgos Facorellis, Eleni Kouloumpi, George Karagiannis, Dimosthenis Avramidis	<i>Dionysius of Fournà and “The Hermeneia of the Painting Art”. A comparison of the painting technology and the materials from his signed and unsigned panel paintings with his painting manual</i>	2478
22	<u>Floriane Gerony</u> , Laurence de Viguerie, Laurent Michot, Anne-Laure Rollet, Maguy Jaber, Guillaume Mériquet	<i>Monitoring the drying and ageing of tempera paints by single-sided NMR</i>	2673
23	<u>Anna Vila</u> , Francesca Caterina Izzo, Yousef A Shiraz	<i>Untitled (no. 74/90) an Acrylic Paint on Lead on Wood by Günther Förg: Diagnosis and Conservation</i>	2747
24	<u>Rosa Costantini</u> , Patrizia Tomasin and Luca Nodari	<i>Relative humidity, light, and extenders: defining different roles on the ageing of oil paints</i>	3130
25	<u>Abdul Murad Zainal Abidin</u> and Mohd Sabere Sulaiman	<i>Elemental analyses of heritage building wall paint using X-ray fluorescence (XRF) for conservation works: Malaysian case studies</i>	3298

26	Anna Mazzinghi, <u>Lisa Castelli</u> , Pier Andrea Mandò, Lorenzo Giuntini, Chiara Ruberto and Francesco Taccetti	<i>MA-XRF aiding the conservation of the Virgin with Child by Mantegna</i>	3307
27	Astrid Blanco Guerrero, Valeria P. Careaga, Noriesly Herrera Rivas, Isabel Alcántara Millán, Gabriela Siracusano, <u>Marta S. Maier</u>	<i>An FTIR and GC/MS study on the formation of zinc soaps in aged oil paint models</i>	3311
28	<u>Irene Cárdbaba</u> and Maite Barrio	<i>Combined study for the identification of an original varnish on a Flemish panel painting</i>	3619
29	Beatrice Menegaldo, Daniela Aleccia, Gert Nuyts, Aria Amato, Emilio Francesco Orsega, Giulia Moro, Eleonora Balliana, Karolien De Wael, Ligia Maria Moretto and <u>Victoria Beltran</u>	<i>“Stories of the Life of Saint George” by Barbelli: Study of painting materials and techniques</i>	3621
30	<u>Milene Gil</u> , Inês Cardoso, Ana Cardoso, Ana Manhita	<i>How are they aging? Tracking past treatment materials in modern mural painting sets by Almada Negreiros in the two maritimes stations of Alcántara, Lisbon</i>	3771
31	<u>Alice Dal Fovo</u> , Jana Strova, Silvia Innocenti, Lucrezia Sepiacci and Raffaella Fontana	<i>Study of an early 20th century artist’s forgery of a Botticelli portrait painted in tempera on tile</i>	4175
32	<u>Flávia Lima</u> , Alexandre Pais, Marta Manso	<i>Unveiling the colours of José António Jorge Pinto tilework</i>	1877
33	Giovanni Cavallo, Patrizia Moretti, Francesca Piqué, Ana Isabel Giraldo Ocampo, Maurizio Aceto, Luca Villa and Patrick Cassiti	<i>The non-invasive study of a group of Early Medieval wall paintings in the Raetia Curiensis region</i>	4177
34	Maria Pia Riccardi, Maya Musa, Alessandro Croce, Maddalena Patrini, Pietro Galinetto, Benedetta Albini, Serena Chiara Tarantino, Mario Lazzari and Sandro Baroni	<i>The relationship between science and art in Taramelli’s watercolors</i>	4179
35	Bojan Miljević, John Milan van der Bergh, Daniela Korolija Crkvenjakov, Snežana Vučetić and Jonjaua Ranogajec	<i>Identification of pigments and binders in paintings of Serbian romantism and realism</i>	4358
36	Vitoria Dias Sousa, <u>Marcia de Almeida Rizzutto</u> , Juliana Bittencourt Bovolenta, Julia Schenatto, Wanda Gabriel Pereira Engel and Marcia Sampaio Barbosa	<i>Analysis of Eleonore Koch’s artwork and powdered pigments from MAC-USP and Pinacoteca of São Paulo collections</i>	4625
37	<u>Tess Visser</u> and Patricia de Montfort	<i>A Technical Study of James McNeill Whistler’s Pastels</i>	4769
38	<u>Eva Luna Ravan</u> , Francesco Paolo Romano, Claudia Caliri, Costanza Miliani, David Buti, Donata Magrini, Claudia Conti, Alessandra Botteon, Marco Realini, Elena Davanzo, Enrico Ferraris, Valentina Turina and Francesca Rosi	<i>Multimodal noninvasive approach revealing the ancient Egyptian palette</i>	4770
39	<u>Domagoj Mudronja</u> , Anja Mioković, Iva Božičević Mihalić and Stjepko Fazinić	<i>Investigation of paint layer cross sections using micro analysis and imaging techniques with focused MeV ions</i>	4779
40	<u>Côme Thillaye du Boullay</u> , Maguy Jaber and Laurence de Vigurie	<i>Rediscovering tempera grassa: physico-chemical properties of emulsion-based paints</i>	4797
41	<u>Elena Castagnotto</u> , Federico Locardi, Tom Sandström, Paolo Oliveri and Maurizio Ferretti	<i>CdZnS paint films degradation: effect of pigment’s properties and environmental conditions</i>	4885
42	<u>Elena Platania</u> , Calin Steindal and Susanne Kaun	<i>New understanding of the 16th and 17th century murals in Enebakk Church in Norway: An interdisciplinary and multi-analytical approach</i>	4955
43	Júlia Schenatto, Juliana Bittencourt Bovolenta and <u>Marcia de Almeida Rizzutto</u>	<i>Portable and non-invasive analytical techniques applied to the investigation of an easel painting by the Brazilian painter Oscar Pereira da Silva</i>	5116
44	<u>Daniel José Jiménez Desmond</u> , José Santiago Pozo Antonio and Anna Arizzi	<i>Evaluation of the physical compatibility of nano-silica-based reintegrations on frescoes</i>	5244
45	<u>Sara Mazzocato</u> and Claudia Daffara	<i>From artistic archive to climate archive: can an artwork surface be a source of information on climatic changes?</i>	5377
46	<u>Lucile Beck</u> , Claire Berthier, Laurent Pichon	<i>Combining PIXE with BS provides more information on paint layers</i>	5560
47	<u>Ioana Maria Cortea</u> , Luminita Ghervase, Ovidiu Tentea	<i>Abundance of colors: pigments and wall painting techniques at the frontiers of the Roman Empire</i>	5581
48	<u>Andrei Hrib</u> , Felicia Iacomi and Munitzer Purica	<i>“Balkan triptych of The Mother of God, “The Unfading Rose””</i>	5948

49	<u>Milene Gil</u> , Mafalda Costa, Sara Valadas, Inês Cardoso, Ana Cardoso, Ana Manhita, Alberto Barontini	<i>Mapping and identification of decay on the modern mural paintings sets by Almada Negreiros at the Maritime stations of Alcântara, Lisbon: type, origin, and consequences</i>	697
50	<u>Jacopo La Nasa</u> , Silvia Pizzimenti, Elisa Maria Poggetti, Ilaria Degano and Francesca Modugno	<i>Analytical pyrolysis for the characterization of mural paintings in street art</i>	6325
51	<u>Penka Girginova</u> and Milene Gil	<i>Microscopic studies of red ochre fresco paint layers replicas treated with nanolime</i>	6400
52	<u>Svetlana Pisareva</u> and Irina Kadikova	<i>Two Palettes by Henri Matisse from the Collection of the Pushkin State Museum of Fine Arts</i>	6547
53	<u>Giulia Procopio</u> , Martina Massarelli, Fabio Aramini, Lucia Conti, Ludovica Ruggiero, Giancarlo Sidoti and Carla Giovannone	<i>Dry pastel: from the artistic technique on Gaulli's frescoes to material for the wall paintings reintegration</i>	6570
54	<u>Giulia Caroti</u> , Silvia Pizzimenti, Luca Bernazzani, Ophélie Ranquet, Emma Cantisani, Norbert Willenbacher, Celia Duce and Ilaria Bonaduce	<i>Curing of ultramarine blue oil paints: the effect of different characteristics of the pigment</i>	6577
55	<u>Roberta Iannaccone</u> , Sara Lenzi, Gabriella Gasperetti, Stefano Giuliani and Antonio Brunetti	<i>The characterization of roman wall painting fragments. An insight into pigments and materials in roman Sardinia (Italy)</i>	1848
56	<u>Lamprini Malletzidou</u> , Triantafyllia Zorba, Dimitrios Karfaridis, Konstantinos Chrissafis, Georgios Vourlas and Konstantinos M. Paraskevopoulos	<i>Consumed by flames: Investigating the markers of wall-paintings effected by fire</i>	4422
57	King Wai Chiu, Dickson Tik San Sin and <u>May Chui In Long</u>	<i>Palette to palette - an integrated of spectroscopic study analysis and UMAP on Wu Guanzhong's paint palette and his painting</i>	5530
58	Francis Sanches, Raysa Nardes, Fernando Gonçalves, Ramon Santos, Hamilton Gama Filho, Roberta Leitão, Catarine Leitão, Davi Oliveira, Ricardo Lopes, Joaquim Assis and <u>Marcelino Anjos</u>	<i>Analysis of paintings using X-ray macro fluorescence and Compton scattering imaging</i>	6773
59	<u>Tomas Markevicius</u> , Ilaria Bonaduce, Anton Nikiforov, Nina Olsson, Agnieszka Suliga, Silvia Pizzimenti, Gianluca Pastorelli and Nan Yang	<i>A New Look into NASA's Pioneering Atomic Oxygen Treatment Removing Lipstick Defacement from Andy Warhol's "Bathtub"</i>	8152
60	<u>Eleni Palamara</u> , Stelios Kesidis, Partha Pratim Das, Stavros Nicolopoulos, Laura Tormo Cifuentes and Nikolaos Zacharias	<i>Towards building a CL database for pigments: Characterization of blue pigments</i>	9432
61	Sara Pirovano, <u>Elena Castagnotto</u> and Federico Locardi	<i>Verdigris alteration: influence of medium and conservation conditions</i>	8556
62	<u>Laura Pagnin</u> , Francesca Caterina Izzo, Sara Goidanich and Lucia Toniolo	<i>Multi-analytical approach to assess the Protective Coatings for the safeguard of Street Art Cultural Heritage</i>	1250
63	<u>Carolina Rodrigues Ferreira</u> , F. A. Baptista Pereira, Mercês Lorena , Lília Estêves, Luís Piorro, Sara Valadas, Ana Cardoso, António Candeias	<i>Study of the wooden supports of Madeira Island Primitive Flemish paintings: knowing to preserve</i>	6905
64	Sofia Pessanha, Iulian Otel, Paulo Ribeiro, Valentina Vassilenko and Maria Luisa Carvalho	<i>Analysis and recognition of Ivory artifacts using remote probe Raman spectroscopy</i>	7002
<b>THURSDAY 11TH   SESSION 4</b>			
1	Oleh Yatsuk, Leonie Koch, Astrik Gorghinian, Marco Ferretti, Alessandro Re, Alessandro Lo Giudice, Patrizia Davit, Lorena Carla Giannossa, Annarosa Mangone, Cristiano Iaia and Monica Gulmini	<i>Chemical characterisation of a peculiar necklace of the Bronzetti Sardi tomb (Early Iron Age Etruria)</i>	5401
2	Andrea Marchetti, Natalia Ortega Saez, Victoria Beltran, Vincent Cattersel, Gert Nuyts, Henri Cosemans, Karolien De Wael, Geert Van der Snickt and Emile Van Binnebeke	<i>Shedding light on the 19th c. waterproofing technology of historical carriages, a multi-analytical approach</i>	5473
3	Sofia Serrano, Ana Filipa Machado, Rui J.C. Silva, Elin Figueiredo	<i>Proto-historic plain gold rings from western Iberia: a detailed study by multifocus OM, pXRF, micro-XRF and SEM-EDS</i>	5768
4	Victoria Corregidor, Luís C. Alves, Pedro Valério, João Cruz, Manuel C. Pereira and Samantha Coleman	<i>Material characterization of Queen Catarina of Braganza and King Charles II of England medallions</i>	6115
5	Florica Matau, Iva Matolinová, Mitica Pintilei, Ovidiu Chiscan and Alexandru Stancu	<i>A multi-analytical approach for the archaeological identification of the Cucuteni pottery firing technology</i>	6889

6	Radek Ševčík, Jana Machotová, Lucie Zárybnická, Petra Mácová and Alberto Viani	<i>Aqueous polyacrylate latex nanodispersions used as consolidation agents to improve mechanical and water transport properties of treated Prague sandstone</i>	3419
7	Josef Hormes, Lisa Langlois, Wantana Klysubun and Alexey Maximenko	<i>X-ray absorption near edge structure (XANES) spectra: A thermometer for the firing temperature of ceramics?</i>	3827
8	Sarah Richiero, Vincent Detalle, Nicolas Wilkie-Chancellor	<i>Advantages and limitations of Laser Induced Breakdown Spectroscopy (LIBS) to detect light elements in different ferrous cultural heritage objects</i>	6919
9	Ilaria Costantini, Simon Alexander Schröder, Juan Manuel Madariaga, Gorka Arana	<i>Study of the influence of marine and industrial environment in the formation of salt efflorescence and metal runoff</i>	7092
10	Catarina Pinheiro, Mathilda Larsson, Carlo Bottaini, Marius Araujo, Bárbara Maia, Joana Madureira, Filipa Pereira	<i>Eusébio da Silva Ferreira, the "Black Panther": Analytical techniques applied to metal statues</i>	7386
11	Xueshi Bai, Sarah Richiero, Florian Téreygeol, Yvan Coquinot, Vincent Detalle	<i>Laser-induced breakdown spectroscopy (LIBS) in 3D lightweight element analysis on heterogenous materials of cultural heritage</i>	7836
12	Neva Maria Elisabetta Stucchi, Giulia Franceschin, Chiara Coletti, Andrea Vavasori, Claudio Mazzoli, Arianna Traviglia	<i>Minero-petrographic characterisation of roman mosaic tiles from Aquileia</i>	2341
13	Krystian Trela, Aneta Gójska, Ewelina Miśta-Jakubowska and Adam Kędzierski	<i>Elemental Analysis of Extraordinary Silver Coins Discovered on Polish Territories</i>	8150
14	Dominique Scalarone, Giulia Pellis, Barbara Salvadori, Antonio Sansonetti, Paola Letardi, Paola Rizzi and Barbara Giussani	<i>Looking for a substitute for Inccralac: formulations, application approaches and stability over time of acrylic coatings for the protection of bronze artworks.</i>	218
15	Letizia Ciarlo, Elena Castagnotto, Alessandro Zucchiatti and Elias Sidera-Haddad	<i>Multivariate analysis of XRF data: a non-invasive method for gold foil thickness determination</i>	363
16	Nagmeldeeneen Hamza, Fatema Almarzooqi	<i>Limited technology and unlimited results: an integrated approach about study and conservation of daggers from Ras Al-Khaimah national museum</i>	1618
17	Valentina Ljubic Tobisch, Albina Selimovic, Wolfgang Kautek	<i>Metalworking influence on the corrosion behaviour of Ag and Ag-coated Cu</i>	2264
18	Valeria Comite, Cristina Della Pina, Paula Carmona-Quiroga, Laura Maestro-Guijarro, Mohamed Oujja, Ana Crespo, Andrea Bergomi, Chiara Andrea Lombardi, Mattia Borelli, Marta Castillejo, Paola Fermo	<i>Stratigraphy of metals in heritage pollution crusts by LIBS</i>	2698
19	Sofia Serrano, Ana Filipa Machado, Elin Figueiredo	<i>Gold and silver Iron Age lunulae from western Iberia: a study by multifocus OM, pXRF and digital imaging processing</i>	2812
20	Roberta Iannaccone, Sara Lenzi, Gabriella Gasperetti, Stefano Giuliani, Antonio Brunetti	<i>The case of tabella immunitatis discovered in Porto Torres (Italy): characterization of the metal composition</i>	2894
21	Jiakun Wang, Qian Zhang, Jing Yang, Hui Jiang, Min Hu, Hui Zhang	<i>Non-destructive Analysis of Corrosion Products of Bronzes by Terahertz Time-domain Spectroscopy and Imaging</i>	2909
22	Darina Trojkova and Tomas Trojek	<i>Uncertainty of quantitative X-ray fluorescence micro-analysis of metallic artefacts caused by their curved shapes</i>	3102
23	Giulia Privitera, Claudia Caliri, Francesco Paolo Romano, Costanza Miliani and Paola Letardi	<i>In-situ XRD measurements on outdoor bronze artwork as a tool to deepen the knowledge on patinas</i>	4430
24	João Cruz, Elin Figueiredo and Luís Alves	<i>Bullion coins circulating in Portugal in the 12th-13th centuries: an analytical approach</i>	1748
25	Giulia Pellis, Alessia Calabrese and Dominique Scalarone	<i>Double shot pyrolysis GC/MS characterization of modified Paraloid coatings for the protection of outdoor bronzes</i>	4744
26	Susana Gomes, Ana Arruda, Pedro Valério, António Soares, Carlos Pereira, Elisa Sousa and Fátima Araújo	<i>Minor and trace elements in Roman lead from Monte Molião archaeological site (Portugal)</i>	4871
27	Pedro Valério, Salomé Sequeira, Vanessa Dias, Gisela Encarnação and M. Fátima Araújo	<i>The composition of Roman metals from Moinho do Castelinho and Quinta da Bolacha (Amadora, Portugal)</i>	4964



28	Imre Szalóki and Anita Gerenyi	<i>Quantitative analysis of cultural heritage and safeguards objects by in-house developed confocal macro XRF spectrometer</i>	5274
29	Silvia Pérez-Diez, Luis Javier Fernández-Menéndez, Matthieu Boccas, Cheyenne Bernier, Christophe Pécheyran, Nerea Bordel, Christof Vockenhuber, Max Döbeli and Maite Maguregui	<i>Development of in situ LIBS and EDXRF methods validated by ion beam techniques to quantify halides in Pompeian pyroclasts and c</i>	3075
30	Paolo Antonino Maria Triolo	<i>Implementation of the diagnostic capabilities of the CMOS sensor in the NIR environment, using 1070nm interference filter and a conventional band-pass filters set</i>	5103
31	Patrícia Gatinho, Cátia Salvador, Sílvia Macedo Arantes, M. Rosário Martins, Amélia M. Silva, Ana Z. Miller and A. Teresa Caldeira	<i>Prospection of bioactive compounds produced by bacterial isolates from pristine environments</i>	5368
32	Marta Porcaro, Antonio Brunetti, Anna Depalmas, Carlo Casi, Rosario Maria Anzalone and Caterina De Vito	<i>Use of X-ray fluorescence combined with Monte Carlo simulation for determination of bronze alloys</i>	799
33	N.K. Kladouri, S. Skaltsa, Th. Gerodimos, K. Pezouvani and A.G. Karydas	<i>Compositional <math>\mu</math>-XRF analyses of copper-based coins from Rhodes, Greece, 4th c. BCE to 2nd c. CE</i>	9750
34	Isabel Amaya-Torres, Constanza Acuña, Valeria Godoy, Karla Leiva, Rosalía Astorga	<i>Climate data analysis for sustainable conservation of cultural heritage</i>	2004
35	Ada Sáez, Mónica Álvarez de Buergo, Natalia Pérez-Ema	<i>Portable non-destructive techniques applied to the study of the deterioration pattern of partially submerged heritage in reservoirs</i>	2576
36	Maria Kylafi	<i>The Pylos Geoarchaeological Program: Fusion of Images towards understanding Ancient Landscape</i>	8955
37	Maria Zdończyk, Barbara Łydźba-Kopczyńska, Joanna Cybińska	<i>Luminescent coatings for the anti-theft protection of cultural heritage glass and metal objects</i>	2026
38	Vanessa Antunes, Jorge Machado, Marluci Menezes, Carla Tomás, José Cruz, Gunnar Liestol, João Serra	<i>Collaborative Efforts in Preserving Cultural Heritage: The "Forte das Memórias" Project</i>	6365
39	Cátia Salvador, Sílvia Macedo Arantes, M. Rosário Martins, António Candeias, Cesareo Saiz-Jimenez and A. Teresa Caldeira	<i>Microbial communities of underwater caves from Algarve coast: Biological activities prospection</i>	686
40	Jorge Sanjurjo Sánchez, Carlos Arce Chamorro, Adolfo Fernández Fernández, Alves Carlos, Jose Carlos Sánchez-Pardo and Rebeca Blanco-Rotea	<i>Geophysical survey using gamma ray spectrometry (GRS) on the archaeological site of Cidadela (Galicia, NW Spain)</i>	4901
41	Iñaki Vázquez de la Fuente, Inés Barbier, Sara Puente Muñoz, Nagore Prieto Taboada, Gorka Arana and Juan Manuel Madariaga	<i>Natural materials for cleaning metallic leachates (based on iron and copper) on marble surfaces as alternative of traditional gels</i>	5521
42	Tomas Trojek, Pavel Novotny, Martin Hlozek and Darina Trojkova	<i>X-ray fluorescence imaging with benchtop devices for scanning and full field techniques</i>	9984
43	Martina Romani, Erlantz Lizundia and Maite Maguregui	<i><math>\mu</math>-EDXRF imaging to evaluate desalination ability of cellulose foams and sponges applied on wall paintings</i>	8794
44	Nouchka De Keyser, Frédérique Broers, Annelies van Loon, Francesca Gabrieli, Frederik Vanmeert, Steven De Meyer, Arthur Gestels, Victor Gonzalez, Petria Noble, Koen Janssens and Katrien Keune	<i>Pararealgar and semi-amorphous arsenic sulfides discovered in Rembrandt's Night Watch</i>	3922
45	Joanna Zwinczak, Krzysztof Kruczała and Marek Bucki	<i>Retouches of the paint layer: Research into physical and chemical changes of the materials used in conservation studios in the National Museum in Kraków</i>	3956
46	María Antonia García, Consuelo Imaz, Pedro Pablo Perez and Ana Albar	<i>GUADAMECI ALTARPIECE : A CASE OF STUDY EMPLOYING DIFFERENT ANALYTICAL METHODOLOGIES</i>	3969
47	Simona Raneri, Giulia Lorenzetti, Vincenzo Palleschi, Simonetta Rota, Beatrice Meriadri, Stefano Legnaioli	<i>The 'Madonna delle Grazie' of Andrea del Sarto/ Giovanni Antonio Sogliani: a multi-analytical study</i>	6948
48	Fiona McNeill, Taren Ginter, Megan Gallagher, Shaelyn Horvath, Josephine La Macchia, Sonia Marotta	<i>The toxicity of historical white lead makeup</i>	7166
49	Milene Gil	<i>Analytical study of the powdered pigments collection from the Brazilian artist Gilda Neuberger (1911-2011)</i>	7307

50	Mariangela Cestelli Guidi, Fabio Aramini, Antonella Balerna, Silvia Brandalesi, Giuseppe Bonifazi, Giuseppe Capobianco, Elisabetta Giani, Eleonora Gorga, Marcella Ioele, Barbara Lavorini, Alice Mantovan, Lucilla Pronti, Martina Romani, Silvia Serranti, Vittorio Sciarra, Mauro Simeone, Stefano Tamascelli, Gianluca Verona Rinati, Giacomo Viviani	<b>ARTEMISIA: artificial intelligence to support diagnostic technologies for Cultural Heritage. An integrated multi-modal approach for assessing the state of conservation of pictorial works.</b>	7316
51	Sander van Lith, Jorien Duivenvoorden, David Thickett, Joen Hermans, Katrien Keune	<b>Modeling water transport phenomena and induced reactivity relevant to oil painting deterioration</b>	7632
52	Irina Kadikova, Svetlana Pisareva, Igor Borodin	<b>The Red Vineyards near Arles by Vincent van Gogh: The Results of Technological Examination</b>	7684
53	Giulia Germinario, Andrea Luigia Logiodice, Paola Mezzadri, Davide Melica, Roberto Ciabattoni, Angela Calia	<b>Integrated investigations to study degradation issues on the urban mural painting Ama il tuo sogno by Jorit Agoch</b>	7698
54	David Hradil, Janka Hradilová, Zdeňka Čermáková, Silvia Garrappa	<b>New materials for painting at the outset of modern age</b>	7747
55	Massimo Beltrame, Ginevra Coradeschi, Fabio Sitzia, Ana Margarida, Patricia Moita, Cristina Galacho, Simona Rafanelli, José Mirão	<b>Etruscan wall paintings from Domus dei Dolia (Vetulonia, Italy): render mortar and pigments characterization</b>	7910
56	Carla Álvarez-Romero, María Teresa Doménech-Carbó	<b>Atomic Force Microscopy Nanoindentation as noninvasive method for characterizing mechanical properties of art and archeological paintings</b>	7986
57	Eva Galambos	<b>Painting layers of gothic stone sculptures of Buda Castle, compositional analysis and colour reconstruction</b>	8100
58	Stelios Kesidis, Andreas G. Karydas, Athena Georgia Alexopoulou, Agathi Anthoula Kaminari and Nikolaos Zacharias	<b>Preliminary investigation of the painting technique of Thalia Flora-Karavia: The 'Paris' case study.</b>	8624
59	Marta Maier	<b>A two-step GC-MS procedure for the characterization of alkyd paint media</b>	8812
60	Adele Bosi, Alessandro Ciccola, Ilaria Serafini, Paolo Postorino, Art Néss Proano Gaibor, Roberta Curini, Gabriele Favero and Maarten van Bommel	<b>Direct gel-supported liquid extraction from paint layers: a new invisible procedure for SERS and HPLC-HRMS identification of dyes in complex matrices</b>	9063
61	Tess Visser	<b>The Materials and Methods of the Glasgow Boy artist D.Y. Cameron</b>	9109
62	Ana Leticia Castro, Monica Parma, Andre Pimenta, Valter Felix, Matheus Oliveira, Miguel Anadrade, Davi Oliveira, Joaquim Assis, Raysa Nardes, Francis Sanches, Catarine Canellas, Roberta Gama, Marcelino Anjos and Renato Freitas	<b>Analysis of oval paintings from the 18th century attributed to the Brazilian painter Leandro Joaquim by XRF and MA-XRF</b>	9386
63	Milene Gil	<b>On the application of SmART_scan in the study of the Planisphere mural painting by the Portuguese modernist Almada Negreiros</b>	9808
64	Livio Ferrazza and David Juanes Barber	<b>Application of analytical techniques in the assessment of cleanliness in modern pictorial surfaces with eco-sustainable formulations</b>	8855
65	Alessandra Rocco, Moira Bertasa, Anna Impallaria, Emanuela Grifoni, Raffaella Fontana, Jana Striova and Cristiano Riminesi	<b>Detection and monitoring of defects in the Brancacci Chapel wall paintings via Holographic Interferometry and Microwave Reflectometry</b>	2161
66	Victoria Beltran, Martí Beltran, Nati Salvadó and Salvador Butí	<b>The formation of oxalates in natural resins</b>	3395