



6th International Congress Chemistry for Cultural Heritage - CHEMCH

4 – 8 July 2022

<https://eventi.unibo.it/chemch2022>

SCIENTIFIC PROGRAM

Monday, July 4

13.00-15.00 Registration

14.00-14.45 **WELCOME ADDRESS**

14.45-15.00 **Congress opening** R. Mazzeo (University of Bologna)

ORAL SESSION 1 ADVANCED DIAGNOSTIC TECHNIQUES APPLIED TO CULTURAL HERITAGE

Chair: ROCCO MAZZEO

15.00-15.30 **PLENARY LECTURE**
Making the invisible visible by hyperspectral imaging
PROF. COSTANZA MILIANI

15.30-15.45 ***Terahertz Spectroscopy in Reflection Configuration for the Identification of Mineral Pigments***
A. Artesani, R. Lamuraglia, F. Menegazzo, S. Bonetti, A. Traviglia

15.45-16.00 ***Application of a new non-destructive and non-invasive sampling methodology based on SERS substrates for the detection of art materials***
D. Reggio, I. Romo Díez, M. Lazzari

16.00-16.15 ***Novel optical-photothermal infrared (O-PTIR) spectroscopy for the sub-micron molecular characterization of cultural heritage***
Andrea Marchetti, Victoria Beltran, Ferenc Borondics, Christophe Sandt, Gert Nuyts, Margje Leeuwestein, Mariolijn Debulpaep, Karolien De Wael

16.15-16.30 ***Morphological and spectroscopic mapping at the nano scale: the potentialities of the new s-SNOM nano infrared microscopy for the study of paint layers***
C. Stani, L. Vaccari, E. Catelli, S. Prati, R. Mazzeo, G. Scitutto

16.30-16.45 ***Trace protein analysis of archaeological and museum objects for species identification***
C. Gilbert, K. Bathany, S. Claverol, J. Arslanoglu, C. Tokarski

16.45-17.00 ***The issue of iron gall inks: optimisation of a micro-destructive method based on liquid chromatography coupled to diode array detector and tandem mass spectrometry***

A. Ferretti, F. Sabatini, I. Degano

17.00-17.15 ***Review of Cultural Heritage Applications using submicron O-PTIR and Simultaneous Raman microscopy – A new paradigm in Vibrational***

M. Kansiz

ORAL SESSION 2 INTERACTION AND DEGRADATION OF CULTURAL HERITAGE AND PREVENTIVE CONSERVATION

Chair: COSTANZA MILIANI

17.15-17.30 ***X-ray imaging of the pigments and their secondary products in frescoes of the Upper Basilica of St. Francis***

E. Avranovich Clerici, S. de Meyer, F. Vanmeert, S. Legrand, L. Monico, G. van der Snickt, C. Miliani, K. Janssens

17.30-17.45 ***New evidence on the degradation of Cadmium Yellow oil paints using historically reconstructed pigments***

M. Ghirardello, V. Otero, L. Monico, M. Cotte, L. Toniolo, A. Nevin, M. João Melo, D. Comelli

17.45-18.00 ***A fast method to describe the oxidation of oil paint formulations by isothermal thermogravimetric analysis (TGA)***

C. Duce, S. Pizzimenti, L. Bernazzani, M. R. Tinè, I. Bonaduce

18.00-18.15 ***Shedding light on the factors triggering the degradation pathways of green copper and arsenic-based paints by a multi-method approach at multiple-scale lengths***

S. Carboni Marri, L. Monico, F. Rosi, R. Vivani, C. Miliani, A. Romani

18.15-18.30 ***Application of UV-VIS-NIR fiber optic spectroscopy to study spectral properties of microbial contamination of the paper substrate***

P. Paračková, M. Čeppan, B. Kaliňáková, M. Reháková

18.30-20.00 **WELCOME DRINK**

Tuesday, July 5

ORAL SESSION 3 DATA PROCESSING FOR CULTURAL HERITAGE INVESTIGATIONS

Chair: *GIORGIA SCIUTTO*

- 9.00-9.30 **PLENARY LECTURE**
Large scale analysis of heritage materials – the future
PROF. HAIDA LIANG
- 9.30-9.45 ***Combining spectroscopy with machine learning for the analysis of plasticizers in modern and contemporary PVC***
T. Rijavec, D. Ribar, J. Markelj, M. Strlič, I. Kralj Cigić
- 9.45-10.00 ***Deep learning models for ma-xrf imaging spectroscopy of paintings***
Z. Preisler, A. Busacca, R. Andolina, C. Caliri, C. Fatuzzo, C. Kimbriel, G. Privitera, C. Miliani, F. Paolo
- 10.00-10.15 ***X-ray fluorescence analysis for ptolemaic coins classification using Machine Learning approach***
M. Labate, C. Sirello, A. Deodato, F. Barello, M. Palumbo, L. Operti, A. Agostino
- 10.15-10.30 ***A multivariate and multiblock high-throughput processing of hyperspectral data***
E. Catelli, Z. Li, S. Prati, M. Occhipinti, R. Alberti, T. Frizzi, R. Mazzeo, P. Oliveri, G. Sciutto
- 10.30-10.45 ***Leather and Parchment Preservation - The Power Behind Coupling of Analytical Methods and Data Fusion***
C. Carsote, E. Badea, M. I. Caniola, E. Hadimbu, S. M. Paunescu, N. Proietti, V. Di Tullio, Z. Sebestyén, Z. Czégény
- 10.45-11.00 ***Fourier Transform Infrared Spectroscopy (FTIR) reflectance spectroscopy combined with the chemometric approach in the study of amber***
F. Armetta, M. L. Saladino, B. Łydzba-Kopczyńska
- 11.00-11.30 **COFFEE BREAK**

**ORAL SESSION 4 ADVANCED DIAGNOSTIC TECHNIQUES APPLIED
TO CULTURAL HERITAGE**

Chair: GIORGIA SCIUTTO

- 11.30-11.45 ***Macro-Raman-mapping: a Novel tool in the analysis of art objects***
P. Vandenabeele, A. Rousaki
- 11.45-12.00 ***A novel tool in Heritage Science: correlative Brillouin and Raman spectroscopy for the micro-scale mechano-chemical characterization of Cultural Heritage materials***
M. Alunni Cardinali, L. Cartechini, M. Paolantoni, C. Miliani, D. Fioretto, L. Comez, F. Rosi
- 12.00-12.15 ***A Non-Invasive Method Based on a Combination of Hyperspectral Reflectance and Fluorescence Imaging for the Study of Coloured Textiles***
A. Candeo, M. Ghirardello, C. Manzoni, G. Valentini, G. Sciutto, E. Catelli, S. Prati, R. Mazzeo, D. Comelli
- 12.15-12.30 ***New developments on simultaneous MA-XRD/MA-XRF imaging: instrumental setup and computational approaches for pigment-specific mapping of paintings***
F. P. Romano, C. Miliani, C. Caliri, C. Fatuzzo, D. Pavone, G. Privitera, D. Zappalà, Z. Preisler
- 12.30-12.45 ***Possibilities of Complex Forensic Analyses in Materials Comparison and Identification***
M. Kotrlý, I. Turková, R. Šefců
- 12.45-13.00 ***Smartphone-based colorimetric determination of red pigments in Roman frescoes replicas***
R. Sáez-Hernández, K. U. Antela, A. R. Mauri-Aucejo, M. L. Cervera, Á. Morales-Rubio, A. Pastor, G. Gallelo

13.00-14.30 LUNCH BREAK

ORAL SESSION 5 RELEVANT CASE STUDIES

Chair: BARBARA KOPCZYNSKA

- 14.30-14.45 ***Diagnostic campaigns on stage costumes: a new challenge***
T. Nacci, F. Sabatini, F. Modugno, I. Degano
- 14.45-15.00 ***Analyzing residues from underwater context: the case of Late Roman amphorae from the Baglio-Anselmi Museum of Marsala (Trapani, Italy)***
E. Greco, D. Tanasi, S. N. Hassam, F. Pisciotta, G. Marussi, G. Adami, S. Licen, P. Barbieri
- 15.00-15.15 ***Multispectral and Hyperspectral Imaging for the study of archaeological pre-Columbian textiles***
L. de Ferri, F. Grillini, M. C. Caggiani, S. George, G. A. Pantos, S. Legnaioli, M. Veseth
- 15.15-15.30 ***Complementary multimodal imaging provides insight on Old Man in Wandermünde by E. Munch***
M. Bertasa, R. Fontana, E. Grifoni, A. Impallaria, M. Raffaelli, J. Striova, I. Crina A. Sandu, J. Ferrer, C. Andraud, A. Tournié, F. Rosi, D. Buti, F. P. Romano, C. Caliri, C. G. Fatuzzo, G. Privitera, Z. Preisler, C. Costantino, A. Romani, L. Cartechini

15.30-16.00 COFFEE BREAK

16.00-17.30 POSTER SESSION 1

Chair: MILENA REHAKOVA

- 16.00-16.05 ***Prediction of pottery firing temperature based on Infrared spectroscopy and machine learning***
Q. Hu, S. Liu
- 16.05-16.10 ***X-ray Analysis of 18th- and 19th-century Meissen Porcelaine Figurines***
A. Klinska-kopacz, T. Wilkosz, K. Ochniak-dudek, J. del hoyo Melendez
- 16.10-16.15 ***Ozone monitoring in indoor conservation spaces: a preliminary review***
L. Vergelli, B. Bartolucci, F. Frasca, E. Verticchio, C. Bertolin, A. M. Siani

- 16.15-16.20 ***Non-invasive multitechnique analysis of a Baroque wardrobe-shaped Amber Cabinet from Gdańsk***
A. Rygula, A. Klisińska-kopacz, P. Krupska-wolas, M. Matosz, M. Obarzanowski, K. Skóra, A. Stępień, T. Wilkosz, J. Harasim-grym, J. M. Del Hoyo-meléndez
- 16.20-16.25 ***Characterization and degradation of the unconventional artistic material Ietraset®***
T. Biazoli De Oliveira, D. Scalarone, G. Pellis
- 16.25-16.30 ***Zinc White Mapping with Multispectral UV Reflectance Imaging***
D. Manzini, E. Lecchini
- 16.30-16.35 ***Multianalytical Approach for the Study of Fibulas Decorated by Red Garnet Inlays Dated to Great Migration Period from Central Europe***
Z. Zlamalova Cilova, V. Čiřakova, L. Lapčák, Š. Msallamová, R. Hanus, T. Trojek, Z. Beneš
- 16.35-16.40 ***A survey of the material representation for the identification and characterization of plastics in the contemporary art collections***
P. Urbanová, K. Vizárová, K. Čiřová, R. Tiño, M. Reháková, M. Čeppan, V. Gabčová
- 16.40-16.45 ***Study of the limit of detection (LOD) of metal oxalates by Attenuated Total Reflectance Micro Fourier-transform Infrared spectroscopy (ATR μ FTIR)***
A. Colignon, H. Bah, J. Sanyova and F. Mederos-Henry
- 16.45-16.50 ***Synthesis, ageing and multi-analytical investigation of Cd_{1-x}Zn_xS pigments***
E. Castagnotto, F. Locardi, T. Sandström, P. Triolo, P. Oliveri, M. Ferretti
- 16.50-16.55 ***Characterisation of artists' spray-paints by a multi-analytical (SEM/EDS, ATR-FTIR, Raman) approach***
V. Marazioti, A. M. Douvas, F. Katsaros, P. Koralli, S. Boyatzis, Y. Facorellis
- 16.55-17.00 ***Identification and discrimination of chelated metals in oil-based paint tubes and dryers explored by ultra-high resolution MALDI FTICR mass spectrometry***
E. Giaretta, C. Bordin, F. Bray, C. Rolando

- 17.00-17.05 ***A multi-analytical approach on silver-based coins to reconstructing the 3rd century economy***
G. Marussi, M. Crosera, B. Callegher, E. Prenesti, D. Cristofori, G. Adami
- 17.05-17.10 ***Study of the Most Effective Analysis Procedures Using non-invasive analytical methods for studying Painted Objects***
I. Shaheen, H. Nagmeldeen
- 17.10-17.15 ***Combined compositional and morphological analysis of Enamels of Limoges***
G. Magkanas, H. Bagán, J. Martínez, L. de Sanjosé, J. F. García
- 17.15-17.20 ***A new inception into the study of madder lake pigments through a multi-analytical characterisation of historical formulations***
T. Veiga, A. Moro, V. Otero, M. João Melo
- 17.20-17.25 ***Application of Nondestructive Methods to Contemporary Art Analysis***
M. Oravec, A. Homolová, V. Gabčová, M. Bohumelova, K. Čížová, K. Vizárová
- 17.25-17.30 ***Chemical pretreatment protocols for 14C dating of cultural heritage samples***
G. O. Sava, C. Margariti, T. Sava, A. Meghea, M. Ilie, C. Mănăilescu

ORAL SESSION 6 RELEVANT CASE STUDIES

Chair: RADKO TIÑO

- 17.30-17.45 ***Portable X-ray Fluorescence for non-destructive provenance studies on Sardinian obsidian artefacts and menhirs***
V. Mameli, M. Serra, C. Lugliè, C. Cannas
- 17.45-18.00 ***The Purple of Cassius on portrait miniatures on ivory: identification, non-invasive analysis, and the preparation***
Z. Širillová, J. Hradilová, S. Švarcová, M. Pech, P. Bezdička, D. Hradil

Wednesday, July 6

ORAL SESSION 7 INTERACTION AND DEGRADATION OF CULTURAL HERITAGE AND PREVENTIVE CONSERVATION

Chair: ELENA BADEA

9.00-9.30

PLENARY LECTURE

Historic material variability: from 'controlled' degradation studies to apps

PROF. MATIJA STRLIČ

9.30-9.45

Monitoring of microenvironments in heritage institutions

I. Kraševac, I. Kralj Cigić, M. Strlič

9.45-10.00

Novel insights on the mechanism of metal oxalate formation within southern Netherlandish oil paintings from the 15th to the 17th centuries

F. Mederos-Henry, S. De Meyer, M. Stillhammerova, S. Legrand, C. Higgitt, F. Vanmeert, C. Poleunis, A. Delcorte, V. Bücken, M. Spring, K. Janssens, J. Sanyova

10.00-10.15

Black stains on the passepartout of Folio 843 of Codex Atlanticus: multi-analytical study

N. Guarnieri, M. Ghirardello, D. Comelli, D. Della Sega, M. Cotte, S. Goidanich, V. Milo, E. Fontana, L. Toniolo

10.15-10.30

Application of non-destructive techniques to understand VOC-induced historical glass corrosion mechanisms

D. Sharma, K. Schmidt-Ott, U. Rothenhaeusler, S. George, E. Joseph, T. Lombardo

10.30-10.45

The possibilities of experimental methods monitoring efficacy of deacidification process

I. Vajová, K. Vizárová, R. Tiño, S. Katuščák, M. Králik

10.45-11.00

Infrared spectroscopy reveals the reactivity of fatty acids on copper surfaces and its implications for bronze objects in cultural heritage

S. C. Boyatzis, L. Fragkos-Livanios, A. Filopoulou

11.00-11.30

COFFEE BREAK

**ORAL SESSION 8 NEW MATERIALS AND METHODS FOR
THE CONSERVATION OF CULTURAL HERITAGE**

Chair: ROCCO MAZZEO

- 11.30-11.45 ***A new strategy to consolidate and protect historical glass***
G. Franceschin, R. Zanini, S. Centenaro, A. Traviglia
- 11.45-12.00 ***Innovative green gels for the biocleaning of historical metal heritage***
A. Passaretti, L. Cuvillier, G. Sciutto, E. Guilminot, S. von Reuss, E. Joseph
- 12.00-12.15 ***New consolidants for carbonate stone substrates of artistic value: ammonium salts of oxalic acid derivatives***
A. Pintus, M. Arca, M. C. Aragoni, S. Columbu, L. Giacometti, P. Meloni, G. Carcangiu, D. Gimeno, A. Navarro Ezquerra, J. Rius, O. Vallcorba, Vito Lippolis, E. Podda
- 12.15-12.30 ***Composite biofilms based on biopolymer and wax/HNT microspheres for coating artwork surface***
M. R. Caruso, G. Cavallaro, G. Lazzara, S. Milioto
- 12.30-12.45 ***Development of terpene-derived hydroxylated polymers for the consolidation of archaeological wood***
M. Cutajar, S. E. Harding, R. A. Stockman, S. M. Howdle, S. Braovac
- 12.45-13.00 ***Encapsulation of different classes of biocides into alginate hydrogels to counteract biodeterioration of stone artworks***
F. Gabriele, L. Bruno, C. Casieri, R. Ranaldi, L. Rugnini, N. Spreti
- 13.00-13.15 ***New advanced green materials for the cleaning of works of art: the Superstar and GOGREEN projects***
S. Prati, F. Ramacciotti, B. Keser, L. Gatti, G. Sciutto, C. Gualandi, M. L. Focarete, A. Menichetti, M. Montalti, R. Mazzeo

13.15-14.30 LUNCH BREAK

14.30-16.00 POSTER SESSION 2

Chair: SILVIA PRATI

- 14.30-14.35 ***Morphological and minero-chemical comparison of artistic patination recipes applied by different procedures***
F. Boccaccini, L. Mancini, C. Riccucci, M. Pascucci, G. Favero, G. Di Carlo
- 14.35-14.40 ***Development and testing of new systems based on layered double hydroxides for stabilization of paper information carriers***
E. Guzikiewiczová, S. Malečková, J. Jurišová, M. Králík
- 14.40-14.45 ***SAFECULT: Skills framework development for disaster risk management for European libraries, archives, and museums***
K. Vizárová, R. Tiňo, C. Senfett, E. Badea, C. Carsote, L. A. Remotti
- 14.45-14.50 ***Volatile compounds (VC) in museums display cases: deeper into a common conservation problem***
L. Barchi, C. Balducci, E. Breitung, A. Bone, E. Guerriero, A. Romani, F. Rosi, F. Vichi, M. Frattoni, C. Miliani
- 14.50-14.55 ***Addressing mobility of people, ideas, and artefacts between Chalcolithic Iberic enclosures by non-destructive methods***
A. L. Rodrigues, R. Marques, M. I. Dias, M. I. Prudêncio, A. C. Valera, Zs. Kasztovszky, I. Harsányi, V. Szilágyi, I. Kovács, Z. Szókefalvi-Nagy
- 14.55-15.00 ***Nanocontainers for self-healing coatings: a surface science perspective***
M. P. Casaletto
- 15.00-15.05 ***New 3D surface modelling for the study of cultural heritage materials***
L. Dias, P. Barrulas, J. Mirão
- 15.05-15.10 ***Gilding in Genoa: comparing practice and rules***
L. Ciarlo, E. Castagnotto, F. Locardi, M. Ferretti, A. Zucchiatti, E. Sideras Haddad, M. C. Galassi
- 15.10-15.15 ***Multispectral narrow band imaging for the characterization of pigments***
E. Lecchini, D. Manzini, M. Roman, G. Pojana

- 15.15-15.20 ***Influence of clay composition and firing temperature on pore formation of model pottery samples***
J.-M. Cayme, R. Palm, P. Somelar, S. Vahur, I. Leito, E. Oras
- 15.20-15.25 ***Lime Mortars Containing Clays for the Conservation of the Danube Limes***
L. Miličić, I. Delić-Nikolić, N. Mijatović, B. Ilić, E. Nikolić, S. Vučetić, M. Jovičić, J. Ranogajec
- 15.25-15.30 ***Gas and liquid chromatography approaches coupled to mass spectrometry for the evaluation of thermal-oxidation lipid products in ageing studies***
V. Chiaia, G. Micalizzi, D. Donnarumma, A. Irto, C. Bretti, P. Cardiano, C. De Stefano, P. Q. Tranchida, L. Mondello
- 15.30-15.35 ***Cleaning unvarnished oil paint mock-ups: spectral imaging maps for assessing soiling removal***
J. D. Cutajar, E. Joseph, J. Yngve Hardeberg, C. Steindal, T. Frøysaker
- 15.35-15.40 ***Characterization of the stucco decoration discovered from Ghaleh Guri, Sassanid palace from western Iran***
A. Shekofteh, A. Hasanpour
- 15.40-15.45 ***Scientific Investigation of an archaeological lacquer pipe from Sweden***
Y. Huang, Y. Fu, S. Wei
- 15.45-15.50 ***A comparative Study to Evaluate the Efficacy of Some Consolidants for Enhancing Durability of Ancient, Dyed Textiles***
M. Gouda, O. Abdel-Kareem, M. Attia
- 15.50-15.55 ***Improving mechanical properties of deteriorated textiles: design and validation of the necessary degree of support***
A. Jedrusik, A. de Sas Topolnicki, I. Skotnicova, M. Rehakova
- 15.55-16.00 ***Metallic personal adornment objects in the Iron Age in Southern Portugal – the case study of Vinha das Caliças 4***
M. Rajčić, P. Barrulas, A. M. Arruda, M. Costa

Thursday, July 7

ORAL SESSION 9 NEW MATERIALS AND METHODS FOR THE CONSERVATION OF CULTURAL HERITAGE

Chair: SILVIA PRATI

9.00-9.30

PLENARY LECTURE

Halloysite nanotubes for smart materials in conservation of cultural heritage

PROF. GIUSEPPE LAZZARA

9.30-9.45

Synergistic nanomaterials for stone preservation: green synthesis, characterization, and preliminary tests

R.A. Picca, M. Izzi, M.C. Sportelli, L. Sabbatini, N. Cioffi

9.45-10.00

A green coating for the protection of frescoes

A. Campostrini, R. Lamuraglia, E. Ghedini, F. Menegazzo, M. Signoretto, A. Traviglia

10.00-10.15

Chitosan-based coatings for a green conservation of sterling silver artifacts: benefits and problems

F. Boccaccini, C. Giuliani, C. Riccucci, M. Pascucci, E. Messina, G.M. Ingo, G. Di Carlo

10.15-10.30

Lime-based mortar specimens for the study of protective biofilm

P. G. García Lascurain, F. Villa, F. Cappitelli, L. Toniolo, A. Simelokuhle Mandebvu, D. Gulotta, S. Goidanich

10.30-10.45

New perspectives on the efficiency of paper preservation processes

R. Tiňo, K. Vizárová, M. Králik, M. Jablonský, V. Danielik

10.45-11.00

Addressing Recolonization Four Years after Cleaning Areas of a Granite-Built Monument with Various Widely Used Treatments

D. Pérez-Velón, P. Sanmartín, B. Prieto

11.00-11.30

COFFEE BREAK

ORAL SESSION 10 INTERACTION AND DEGRADATION OF CULTURAL HERITAGE AND PREVENTIVE CONSERVATION

Chair: MATIJA STRLIČ

- 11.30-11.45 ***Lead formates: from model to historical paints***
I. Fazlic, V. Gonzalez, K. Keune, F. Vanmeert, A. Gestels,
E. Avranovich Clerici, K. Janssens, J. Flapper, B. de Bruin, M. Cotte
- 11.45-12.00 ***An analytical approach for studying the degradation and the cleaning of ABS based objects of cultural heritage***
I. Bargagli, L. Cartechini, B. Doherty, F. Sabatini, L. Comez, M. Alunni Cardinali, C. Miliani, F.Rosi
- 12.00-12.15 ***Looking for black: From in-situ analyses to synchrotron experiments to unravel the transformation of cinnabar in the wall paintings of Pompeii***
M. Maguregui, S. Pérez-Diez, F. Caruso, F. Giannici, A. Vichi,
J. M. Madariaga, O. Mathon, M. Cotte
- 12.15-12.30 ***Characterization of Degradation-Induced Molecular Modifications in Parchment - A Combined Spectroscopic and Chemometric Approach***
A. Malissa, F. Cappa, M. Schreiner, M. Marchetti-Deschmann
- 12.30-12.45 ***The degradation of conserved archaeological wood in the presence of pyrite***
C. Steindal, S. Braovac

12.45-13.00 **SPONSOR**
XGLab SRL – Bruker Nano Analytics
Alessandro Tocchio

13.00-14.30 **LUNCH BREAK**

ORAL SESSION 11 RELEVANT CASE STUDIES

Chair: DOMAGOJ SATOVIĆ

- 14.30-14.45 ***Non-Invasive Analysis of the early Paintings and Fiberglass Polyester Sculptures by Licio Isolani***
E. Del Federico, A. Yong, A. Steinfeld, E. Leporace, A. Jerschow,
N. Barbi, L. Banner, R. Miracco
- 14.45-15.00 ***Portable XRF evaluation of chlorides in Stone at the Wheeler Opera House, Aspen CO***
N. Feinberg Lopez
- 15.00-15.15 ***Non-invasive study of degradation processes in painted miniatures***
S. Garrappa, D. Hradil, J. Hradilová, P. Bezdička, E. Kočí, S. Švarcová

15.15-15.30

SPONSOR

Thermo Fisher Scientific Spa

Barbara Bravo

15.30-16.00

COFFEE BREAK

16.00-17.30

POSTER SESSION 3

Chair: GIORGIA SCIUTTO

16.00-16.05

Potential of using a non-invasive method based on essential oils with the purpose of historical paper conservation

A. Tomić, O. Šovljanski, V. Nikolić, A. Ranitović, D. Cvetković, S. Markov

16.05-16.10

Characteristics of Protective Goethite Layer Formation on Ancient Iron Objects

N. Yucel, E. N. Caner-Saltik, A. Kalkanli

16.10-16.15

Evaluation of The Applicability of Non-Toxic And Eco-Sustainable Products For The Conservation Of Pictorial Surfaces In Cultural Heritage

L. Ferrazza, Y. Falcó Sales, D. Juanes Barber, M. T. Pastor Valls

16.15-16.20

Portrait of a painter. First results on the materials and techniques used in a reverse glass painting by Ulrich Daniel Metzger (b. 1671)

S. Wolf, A. Vichi, F. Caruso

16.20-16.25

Films preparation for mounting of historical and archaeological collagen materials

G. Vyskocilova, Š. Bazalová

16.25-16.30

Study of the stability of sustainable coatings for the protection of outdoor bronze artworks

G. Pellis, P. Letardi, P. Rizzi, B. Salvadori, A. Sansonetti, D. Scalarone

16.30-16.35

Study of metal oxalate formation in stratigraphic oil paint model systems

C. Glaude, M. Stillhammerova, S. de Meyer, S. Legrand, F. Mederos-Henry, F. Vanmeert, K. Janssens and J. Sanyova

16.35-16.40

Characterization and identification of corrosion products on recent bronze sculptures in Zagreb city center using a voltammetry of micro-particles attached on carbon paste electrode

D. Šatović, H. Lončar, A. Kapitanović, D. Mikić, H. O. Čurković

- 16.40-16.45 ***Influence of metal cations on the drying properties of the oil medium: Modelling of modified oil formulations***
S. Kirkpatrick, G. van der Snickt, K. Janssens, H. Dubois, J. Sanyova
- 16.45-16.50 ***The Technology of Gilding Ornament on Stone in the Complex of Golestan Palace***
H. Borhani, R. Nafari, N. Nazarzadeh
- 16.50-16.55 ***Longterm protective properties of polymer nano-coatings of fatty acids for protection of copper based cultural heritage***
E. Pezic, D. Satovic, V. Desnica, K. Marusic
- 16.55-17.00 ***Material Research of the Bronze Rivets from the Late La Tène Period***
S. Msallamova, Z. Zlamalova Cilova, Z. Benes, V.a Cistakova, J. Mikova, J. Krejci
- 17.00-17.05 ***Revealing the mediaeval lead-glazing manufacturing technique of the carreaux de pavement from Tiebas (Navarra, Spain)***
I. Ruiz-Ardanaz, V. Arias-López, E. Lasheras, A. Durán
- 17.05-17.10 ***Desalination of CuCl from bronzes patina by NaOH solution***
X. Yang, Z. Liu, L. Qu, F. Zou, W. Wu, K. Chen
- 17.10-17.15 ***Multi-Analytical Characterization study of Decorative Wall Paintings in the Eidsborg and Heddal Stave Churches (Norway)***
A. A. Freeman, L. de Ferri, J. Mazurek, F. Andriulo
- 17.15-17.20 ***Application of amphigels based on poly(2-oxazolines) in conservation practice***
Z. Vargová, V. Jančovičová, M. Oravec, R. Zembjaková, K. Vizárová, J. Kronek, M. Reháková
- 17.20-17.25 ***Unveiling the antimicrobial potential of hydrophobic coatings used for monuments and stone building materials protection***
R. Nunes, L. Dias, A. T. Caldeira, P. Barrulas
- 17.25-17.30 ***First evidence of zinc stearates as dispersing agents in late 19th-early 20th century tube paints***
S. Garrappa, F. Caruso, N. L. Wenger Streeton, D. Hradil, E. Platania, K. Beltinger, T. Frøysaker

17.30-17.35 ***Restoring a restored manuscript: old challenges and new approaches. The Case of St. Mark's Books***
E. Badae, C. Carsote, E. Hadimbu, C. Benvestito, J. Kodrič

SOCIAL DINNER

Friday, July 8

ORAL SESSION 12 RELEVANT CASE STUDIES

Chair: FRANCESCA ROSI

9.00-9.30 **PLENARY LECTURE**
Operation Night Watch: large-scale and integrated research project of Rembrandt's Masterpiece "The Night Watch"
PROF. KATRIEN KEUNE

9.30-9.45 ***An analytical investigation into textiles from traditional Japanese samurai armours***
L. Geminiani, C. Corti, B. Giussani, G. Gorla, M. Luraschi, L. Rampazzi

9.45-10.00 ***New insights into beverages and varnish from ancient Egypt ceramics***
H. Fujii, N. Timbart, F. Gombert-Meurice, Y. Vandenberghe, A. Lattuati-Derieux

10.00-10.15 ***Non-destructive study of Mussini oil color swatches by Schmincke***
F. Caruso, M. Maguregui, A. Vichi, N. C. Scherrer, K. Beltinger

10.15-10.30 ***Anecdotal vs instrumental information. Victor Lind – Nightrider: a case study***
L. Homer, C. Steindal

10.30-10.45 ***Study of a XVI century handwritten academic diploma of "Doctoratus Privilegium" on illuminated parchment***
E. C. L. Rigante, C. D. Calvano, T. R.I. Cataldi, A. Monno, M.a Moroni, L. Sabbatini, G. Tempesta

10.45-11.00 ***Studio Practice of Paul Delvaux: the early years***
C. Defeyt, A. Defeyt, E. Derzelle, F. Vandepitte, D. Strivay

11.00-11.30 **COFFEE BREAK**

11.30-12.30 **POSTER SESSION 4**

Chair: ROCCO MAZZEO

11.30-11.35 ***Black-appearing Iron Age glass – a case study from the Iberian Peninsula***

V. Loncarić, P. Barrulas, A. M. Arruda, M. Costa

11.35-11.40 ***Secrets and Origins Of The Paintings Of The National Theatre Of Costa Rica***

M. D. Barrantes-Madrugal, J. Sánchez-Solís, J. Arguedas, M. I. Sandoval, P. Calderón-Mesén, O.A. Herrera-Sancho

11.40-11.45 ***Identification of Materials and Colorants in Decorative Mosaic Tiles of Musalla Historical Building in Mashhad***

R. Nafari, H. Borhani, N. Nazirzadeh

11.45-11.50 ***Characterization of Brick Mansory Materials from a 19th Century Railway Station in the Philippines***

C. S. Fadriqela, E. T. Miranda, J.-M. C. Cayme

11.50-11.55 ***In situ analysis of pigments in the murals of Yanshan Temple in Fanshi County, Shanxi Province***

J. Ma, F. Wang, Y. Li, F. Wu, H. Guo, X.g Zhang

11.55-12.00 ***First insight on the chemical composition of ancient cover paper bindings present in the Marciana National Library collection (Venice)***

E.Paro, F.C.Izzo, L. Falchi, E. Balliana, C.Benvenuto, S.Pugliese, E.Zendri

12.00-12.05 ***Analytical Studies on the Achaemenid Period's Pigment Lumps from Persepolis World Heritage Site***

O. Oudbashi, A. Shekofteh, Z. Chahardoli, H. Fadaei

12.05-12.10 ***The Russian Icons' Collection of Museikon: A Study of Materials and Techniques for Understanding the Process of Transfer and Reception of Russian Religious Art in Transylvania***

E. Badea, C. Carșote, D. D. Filip, E.I Hadimbu, I. M. Caniola, S. M. Păunescu

12.10-12.15 ***Novgorod icon of the Mother of God "Merciful" of the beginning of the 15th century A.D.: physical and chemical studies, dendrochronological and radiocarbon AMS dating***

K. Voronin, M. Kabanova

12.15-12.20 ***Analytical strategies to evaluate the impact of pyroclastic density currents on the conservation state of wall paintings of Pompei***

M. Maguregui, S. Pérez-Diez, E. F. Nardini, J. M. Madariaga, A. Larrañag

12.20-12.25 ***Study of Pigments used in the Russian North Icon Painting***

S. Ivashevskaja, I. Nabokova

12.25-12.30 ***Portions by F. Kupka (1934): the geometry of pigment-induced crack patterns***

F.C. Izzo, A.M. García, M.A. Herrero, M. Picollo, C. Cucci, M. Martinez, S. Marquez Garcia-Luengo, L. Fuster-López

12.30-14.00 **LUNCH BREAK**

14.00-17.00 ***Special session dedicated to the Trans National (TNA) and Joint Research Activities (JRA) of the Integrating Platforms for the European Research Infrastructure on Heritage Science (IPERION HS)***
<https://www.iperionhs.eu/>

14.00-14-40 ***FIXLAB, a set of analytical platforms to open a new window on heritage***

François Mirambet, Agnès Lattuati-Derieux, Rémi Petitcol, Quentin Lemasson, Zita Szikszai

14.40-15.20 ***Archlab: what is in for you?***

Hilde De Clercq

15.20-15.40 **COFFEE BREAK**

15.40-16.20 ***MOLAB: Bringing science to heritage objects of research***

David Buti

16.20-16.40 ***IPERION #HSAcademy: building a heritage science community***

Matija Strlič

17.00-17.15 **CLOSING REMARKS**



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