

# Green Conservation of Cultural Heritage

October 27-28, Rome



## Programme

Consiglio Nazionale delle Ricerche



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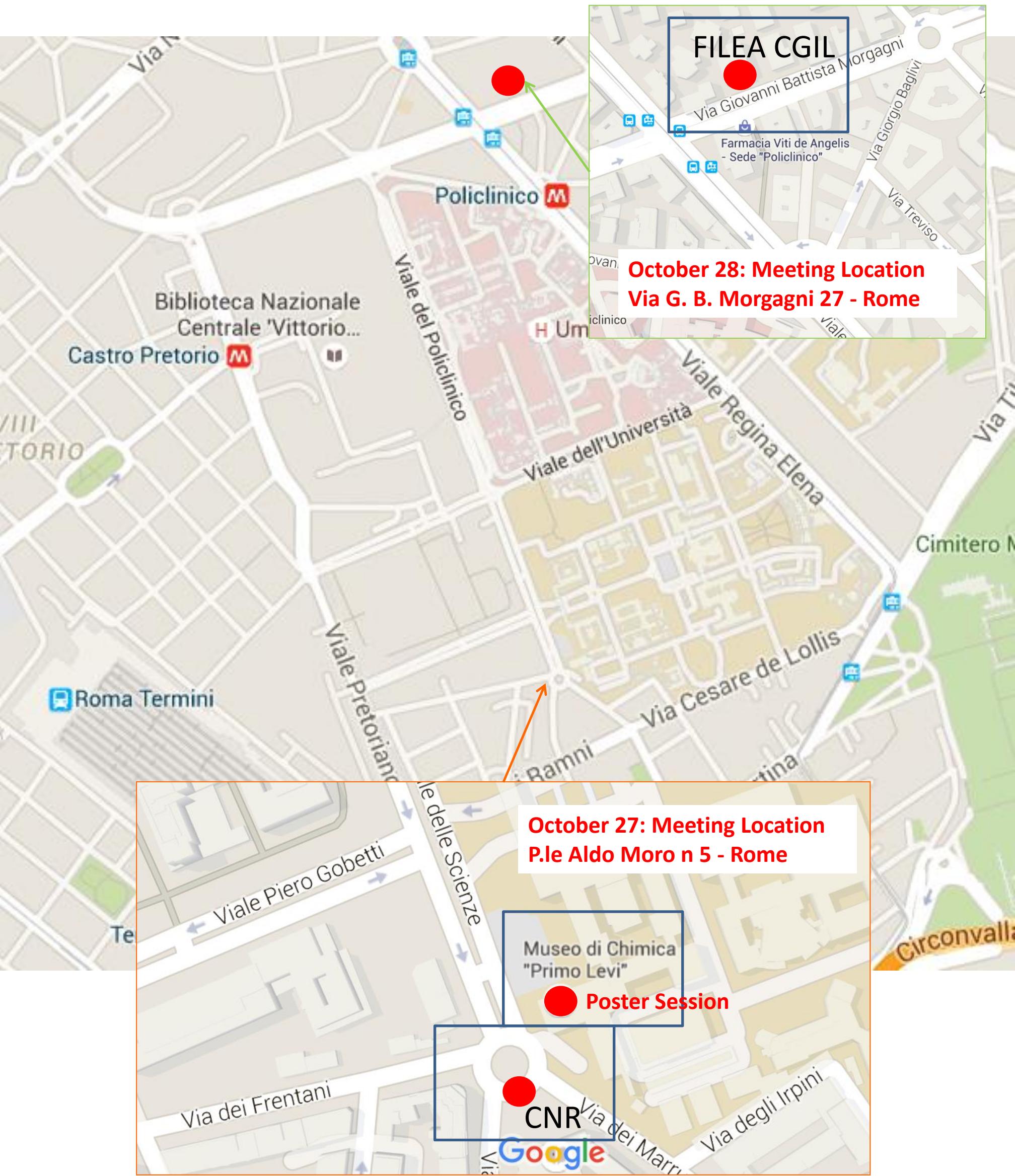
**Scientific Committee:**

**Lorenzo Appolonia, IGIIC**  
**Luigi Campanella, University of Rome (Italy)**  
**Maria Perla Colombini, CNR-ICVBC (Italy)**  
**Mónica Álvarez de Buergo, CSIC-UCM (Spain)**  
**Emilio Mello, Chimica Verde (Italy)**  
**Francesco Mauro La Russa, University of Calabria (Italy)**  
**Fariz Khalilli, MIRAS (Azerbaijan)**  
**Erika Kielė, Vilnius University (Lithuania)**  
**Loredana Luvidi, CNR-ICVBC (Italy)**  
**Andrea Macchia, YOCOCU (Italy)**  
**Stella Nunziante Cesareo, SMATCH (Italy)**  
**Andrea Peruzzi (University of Pisa, Italy)**  
**Fernanda Prestileo, CNR-ICVBC (Italy)**  
**Sivestro Antonio Ruffolo, University of Calabria (Italy)**  
**Ion Sandu, "Al.I.Cuza" University of Iasi (Romania)**  
**Nick Schiavon, University of Evora (Portugal)**  
**Clara Urzi, University of Messina (Italy)**  
**Elisabetta Zendri, University Ca' Foscari of Venice (Italy)**  
**Simone Cagno, YOCOCU (Belgium)**  
**Emilio Mello, University of Piemonte**

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**Organizing Committee:**

**Andrea Macchia, YOCOCU**  
**Loredana Luvidi, CNR-ICVBC**  
**Fernanda Prestileo, CNR-ICVBC**  
**Mauro Francesco La Russa, UNICAL**  
**Serena Morello, Fillea/CGIL**  
**Giulia Ricci, University Ca' Foscari of Venice**  
**Federica Sacco, YOCOCU**  
**Stella Nunziante Cesareo, SMATCH**  
**Marta Fiacconi, YOCOCU**  
**Laura Rivaroli, YOCOCU**





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October 27-28, 2015

CNR - Piazzale Aldo Moro, 7 - 00185, Rome



Opening:			
9.00	9:30	Riccardo Pozzo, Director of Department of Social Sciences and Humanities, Cultural Heritage (DSU)	
		Heleni Porfyriou, Head of Rome Unit, Institute for the Conservation and Valorization of Cultural Heritage (ICVBC)	
		Andrea Macchia, President of YOCOCU Organisation - YOuth in COnservation of CULTural Heritage	
9:30	9:45	Stefano De Caro, Director-General of ICCROM	
9:45	9:55	Chair: Marisa Laurenzi Tabasso	
9:55	10:15	C. Alisi, F. Tasso, P. Marconi, G. Migliore and <u>A.R. Sprocati</u>	Bio-products and Bio-processes in the game towards a sustainable restoration solution
10:15	10:35	M. Albini, L. Comensoli, W. Kooli, L. Mathys, C. Jacquet, M. Rebord, Y. Braendle, P. Junier, and <u>E. Joseph</u>	Microorganisms For Safeguarding Cultural Heritage
10:35	10:55	V. Wiktor and H.M. Jonkers	Bacteria-based protective system for the conservation of cement-based materials
10:55	11:15	<u>G. Germinario</u> , I. D. van der Werf, R. M. Montes-Estelles, J. L. Regidor-Ros and L. Sabbatini	A new biocleaning approach for the removal of graffiti materials
11:15	11:30	Break Time	
11:30	11:50	F. Palla	Sustainable methods for conservation and restoration of historic-artistic manufacts
11:50	12:10	<u>L. Comensoli</u> , J. Maillard, P. Junier and E. Joseph	Can Bacteria And Fungi Be Used To Preserve Archaeological Iron Objects?
12:10	12:30	<u>Wafa M. Kooli</u> , P. Junier and E. Joseph	Evaluation of biomineralization properties of bacteria for the removal of chloride species and stabilization of iron artefacts
12:30	12:50	M. F. La Russa, <u>S. A. Ruffolo</u> , A. Macchia and C. Urzì	Nanoparticles for mitigation of biodeterioration on stone materials
12:50	13:10	<u>F. Valentini</u> , and E. Granata	Nanomaterials and Cultural Heritage: a recent overview of applications
13:10	14:20	Lunch time	
14:20	14:30	Chair: Lorenzo Appolonia, Director of research and co-funded projects at the Regional Superintendence for Cultural Heritage and Activities of the Valle d'Aosta	
14:30	14:50	<u>G. Borsoi</u> , B. Lubelli, R. van Hees, R. Veiga and A. Santos Silva	Deposition of modified nanolimes within calcareous substrates
14:50	15:10	<u>A. Zacharopoulou</u> , G. Batis, V. Argyropoulou and E. Guilminot	The testing of natural corrosion inhibitors Cysteine and Mature Tobacco for treating marine composite objects in PEG400 solutions
15:10	15:30	<u>M. P. Casaletto</u> , C. Cirrincione, A. Privitera, M. Chellouli, D. Chebabe, N. Bettach, N. Hajjaji and A. Srhiri	Sustainable conservation of iron artifacts by a green formulation derived from the seeds of Nigella Sativa
15:30	15:50	E. Cervelli , G. Petrella , C. Mazzuca , L. Micheli, C. Cristini, D. De Fazio , S. Iannuccelli , S. Sotgiu, A. Palleschi and G. Palleschi	A new sustainable and innovative work for paper artworks cleaning process: Gellan hydrogel combined with hydrolytic enzymes
15:50	16:10	<u>F. Fratini</u> and D. Pittaluga	Sustainability of architectonic conservation yards in environmental protected areas: the case of the Zénobito Tower in Capraia island
16:10	16:20	<u>M. Sgobbi</u> , L. Falchi, F.C. Izzo, M. Zuena and E. Zendri	Evaluation of Eco-compatible methodologies to clean stone surfaces polluted by oil spill
16:20	16:50	<u>M. Clausi</u> , L.L. Magnani, C. Tedeschi, M.P. Riccardi, M. Zema and S.C. Tarantino	Interaction of natural and artificial stones with geopolymers: investigation of adhesion properties and microstructural features
16:50	17:10	Discussion	
17:10	17:30	Visit to Thermo Lignum Mobile Unit, near Chemistry Dept., Sapienza University – P.le Aldo Moro 5 00185 Rome	
17:30	18:30	Poster session at Chemistry Museum «Primo Levi», Sapienza University – P.le Aldo Moro 5 00185 Rome	
Social Event:			
Aperitif + Guided tour: The best Rome walking tour from Scalinata di Trinità dei Monti (Spanish steps) to Piazza Navona			
19:30	21:30	The tour will cost 10 EUR, while tour+aperitif will cost 15 EUR To participate, send an email to <a href="mailto:info@yococu.com">info@yococu.com</a> on October 25, 2015 The cost must be paid in cash during the workshop registration	



# Green Conservation of Cultural Heritage

October 28, 2015

Location: Fillea CGIL - Via G.B. Morgagni, 27 - Rome



9:00	9:20	Introduction: Serena Morello, Fillea CGIL
9.30	9:40	Chair: Fernanda Prestileo, Institute for the Conservation and Valorization of Cultural Heritage (ICVBC)
9:30	9:50	<u>E. Balliana</u> , G. Ricci, C. Pesce and E. Zendri
		Assessing the value of Green Conservation for Cultural Heritage: positive and critical aspects of already available methodologies
9:50	10:10	<u>S. Salvini</u> , V. Cinieri
		Evaluation of sustainability of restoration practices and of techniques of historical know-how
10:10	10:30	<u>M. Yoshida</u> , Dr. habil. Z. Giertlová and S. Kirnberger
		Trend Colour 'Green' in Cultural Heritage: Simulation Games for Introducing and Living the Green Change in Museums
10:30	10:50	<u>R. Karadag</u> and E. Torgan
		Advantages and Important of Natural Dyes in the Restoration of Textile Cultural Heritage
10:50	11:20	Break Time
11:20	11:30	<u>M. Coladonato</u> , B. Di Odoardo and <u>Y. Shen</u>
		An Experience on Italian-Chinese Collaborative Training: the Teaching Program "Precaution of Chemical Risk in Conservation and Restoration-Selection of Non-toxic and Sustainable Cleaning Systems"
11:30	11:50	L. Pujia
		Cultural Routes and Territory
11:50	12:10	<u>C. Frasconi</u> , M. Fontanelli, L. Martelloni, M. Pirchio, M. Raffaelli and <u>A. Peruzzi</u>
		Thermal weed control in archeological sites as an alternative to herbicides application
12:10	12:30	<u>N. Wilke</u> , B. Schachenhofer, K. Roux, and G. Tavlaridis
		The Thermolignum Ecological Insect Pest Eradication Process: The Effects on Gilded and Painted Wooden Objects
12:30	13:00	Discussion
13:00	14:20	Lunch Time
14.20	14.30	Chair: Luigi Campanella, Sapienza University of Rome
14:30	14:50	<u>G. Antoniella</u> , M. Humar, <u>D. Krzisnik</u> , C. Pelosi, A. R. Taddei and A. M. Romagnoli
		Charred wood along the ring caves of Orvieto town
14:50	15:10	<u>M. Marinescu</u> , D. Apreutesei, L. Lonescu and A. Emaldi
		Green Conservation of Imperial Doors from Ascension Church, Grindu Commune, Romania
15:10	15:30	<u>M. Albini</u> , P. Letardi, L. Mathys, P. Junier and E. Joseph
		Biopatina Treatment For The Stabilization Of Contemporary Bronze Artworks
15:30	15:50	<u>Renda V.</u> , Saladino M.L., Borgioli L., Caramanna S. and Caponetti E.
		Cleaning treatment effects evaluated by in situ external reflectance FT-IR spectroscopy
15:50	16:10	<u>R. Caminiti</u> , L. Campanella, S. N. Cesaro, <u>S. H. Plattner</u> and E. Scarpellini
		Effects of innovative green chemical treatments on paper – can they help in preservation?
16:10	17:00	Conclusion and Future
19:00	21:00	Guided tour: Ancient Rome Walking Tour (Capitolium hill, Imperial Forum and Colosseum) The tour will cost 10 EUR To participate, send an email to <a href="mailto:info@yococu.com">info@yococu.com</a> on October 25, 2015 The cost must be paid in cash during the workshop registration



## Green Conservation of Cultural Heritage

### Poster Session

October 27, 2015 – Time: 17.30-18.30

Location: Chemistry Museum «Primo Levi», Sapienza University – P.le Aldo Moro 5 00185 Rom



M. Barberio, S. Veltri, M. Scisciò, P. Antici

AFM and Pulsed Laser Ablation Methods for Cultural Heritage: Application to Archeometric Analysis of Stone Artifacts

D. Renzelli, F. Sirianni, F. Stranges, A. Bonanno

Effects of cleaning methods on Thermoluminescence Dating Technique

L.L. Magnani, M. Clausi, S.C. Tarantino, M.P. Riccardi

Studies on geopolymmer-based mortars for Cultural Heritage

M. Barberio, S. Veltri, Sirianni F., Antici P.

Ageing processes of yellow pictorial layers under UV- white lighting and biological attack

F. Marini, M. Tomassetti, M. Piacentini, L. Campanella, P. Flaminii

Roman marmora Differentiation using NIR, XRF and Chemometrics

M. Barberio, A. Imbrogno, F. Stranges, F. Xu

TiO<sub>2</sub> and SiO<sub>2</sub> nanoparticles film for cultural heritage: conservation and consolidation of ceramic artifacts

M. Barberio, M. Scisciò, P. Antici

Laser-Accelerated Proton Beams as diagnostic for Cultural Heritage

L. Campanella, C. Gattuso, P. Gattuso, V. Roviello

A Green material: the Funori alga. Studies and deepening research

A. Bonanno, A. Oliva, D. Renzelli, P. Sapia, F. Sirianni

Infrared Reflectography imaging for archaeological pottery investigation

M. Fagiolo, V. Giunta, C. Mazzuca and S. Orlanducci

Removal of adhesives and cleaning media library: new treatments with gels on paper and parchment

E. Marin, M. Leis and C. Vaccaro

Commercial biological products may be used for cultural heritage cleaning?

I. Camerini, F. Valentini, A. Boaretto, G. Rizzitelli, and E. Granata

Nano-Collagen for Restoration and Conservation of Ancient Leather

C. Coletti, F. Valentini, A. Boaretto, G. Rizzitelli and E. Granata

Engineered Graphene Oxide for paper restoration and preservation

M. Munteanu, I. Sandu and V. Vasilache

Disadvantages of using polymers in restoration of old icons on wood panels

D. Maxim, L. Bucsa, M. I. Moza, O. M. Chachula

Antifungal activity of ten biocides against moulds from different church frescoes from Romania

M. Silva, C. Salvador, M.F. Candeias, D. Teixeira, A. Candeiras and A.T. Caldeira

Novel green biocides for Cultural Heritage: Toxicological studies

S. Pappalardo, F. Valentini, A. Boaretto, G. Rizzitelli and E. Granata

Application of Engineered Graphene Oxide for restoration and preservation of damaged wall paintings

F. Stranges and M. Barberio

Laser Ablation methods for Cultural Heritage: restoration, conservation, consolidation

Nour Allah Munawar

Preserving Cultural Heritage in Conflict Areas Syria

L. Luvidi, A. M. Mecchi, F. Prestileo, E. M. Stella, M. Cortecci, B. Gianfreda

Evaluation of conservation treatments by Politec® products

E. Gioventù, L. Luvidi, A. M. Mecchi, V. Di Tullio, A. Ballo

Biocleaning method on painting layer: preliminary tests for monitoring the effect of sulfate-reducing bacteria on pigments

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