

PERSONAL INFORMATION**Costanza Miliani****Nationality:**

Italian

Affiliation:

CNR-ISPC, Via Guglielmo Sanfelice, Naples,-IT

WORK EXPERIENCE

- 2020-present Coordinator of ERIH-IT node (European Research Infrastructure of Heritage Science)
- 2019 – present Director of the CNR Institute of Heritage Science, Naples, Italy
- 2010-2019 Senior research scientist, CNR-ISTM (*National Research Council - Institute of Molecular Science and Technologies*) Perugia, Italy
- 2002-present Head of the *Heritage Materials Science* group, CNR-ISTM Perugia, Italy
- 2002-2013 Adjunct Professor of *Chemistry for Cultural Heritage* at the Department of Art and Humanities, University of Perugia, Italy
- 2002-2003 Visiting research scientist, Princeton Materials Institute, *Princeton University*, NJ, USA
- 2002-2009 Research scientist, CNR-ISTM
- 1999-2001 Post-Doc, Photochemistry & Photophysic Group - Chemistry Dept. University of Perugia, Italy
- 1998-2000 Research assistant, Scientific Laboratories of Istituto Centrale per il Restauro, Rome, Italy

EDUCATION AND TRAINING

- 1996 Master's degree (MS) in Chemistry – University of Perugia
- 1998 post degree specialization course in Conservation Science – Istituto Centrale per il Restauro
- 1999 PhD in Chemical Sciences (Chemistry of Cultural Heritage) - University of Perugia
- 2019 Master of Business Administration (MBA), *Executive Master in management of Research Infrastructure*, University Milano-Bicocca, Italy.

QUALIFICATION

- Elected Member of the Scientific Board of the Joint Program Initiative on Cultural Heritage (JPI-CH) (2020-presente)
- Interim Coordinator of the European platform of mobile laboratories, MOLAB, of the European Research Infrastructure for Heritage Science (2019-present)
- Deputy coordinator of the Italian node of the European Research Infrastructure for Heritage Science (2019-present)

Member of the Project Working Group at DSCTM, CNR Dept. of Chemical Sciences and Materials Technologies CNR-DSCTM (responsible of the area *Chemistry for Cultural Heritage*) (2017-present)

Member (elected) of the Scientific Advisory Board of CNR-ISTM (2016-present)

Chair (elected) of the Access Board (RI transnational access service providers) of IPERIONCH.eu (2015-present)

Member of the External Advisory Committee of NU-ACCESS *Center for Scientific Studies in the Arts* at Chicago Northwestern University, USA (2014-present)

Member of the Board of the PhD School in Chemical Sciences, Dpt. Chemistry, University of Perugia (2014-present)

Member of the External Advisory Committee of IPANEMA *Institut Photonique d'Analyse Non-destructive Européen des Matériaux Anciens*, Synchrotron SOLEIL, Gif-sur-Yvette CEDEX, FR (2010-2012)

Member of the External Advisory Committee of SMAArt *Scientific Methodologies in Archaeology and Art*, Centro di Eccellenza of Perugia University (2009-present)

National Scientific Professional Qualification from the Italian Minister of Education, University, and Research (MIUR - DD n. 222/2012), as University Full Professor in Analytical Chemistry CHIM 01/A1 from 03/12/2013 to 03/12/2019.

INTERNATIONAL, EUROPEAN AND NATIONAL PROJECTS

Coordinator of CNR Unit - *The Greek philosophical schools according to Europe's earliest 'history of philosophy': Towards a new pioneering critical edition of Philodemus' Arrangement of the Philosophers*, ERC Advanced Grant 2019 H2020.

Coordinator of CNR Unit and leader of WP5 (MOLAB transnational access activity), IPERIONHS *Integrated Platform for the European Research Infrastructure ON Heritage Science* (H2020 INFRAIA-2019 - 1).

Principal Investigator (PI) of IDEHA - *Innovazioni per l'elaborazione dei dati nel settore del Patrimonio Culturale*, PON "Ricerca e Innovazione" 2014-2020, MIUR, Italy.

Principal Investigator (PI) of CNR-ISTM Unit, CuBISM *Computationally-Based Imaging of Structure in Materials for Cultural Heritage*, Northwestern University Chicago, US (US National Science Foundation NSF- project PIRE - Partnerships for International Research and Education, 2017-2022).

PI of CNR-ISTM Unit and leader of Subtask 5.1.4 (Mobile facilities), EHRIS-PP *The European Research Infrastructure for Heritage Science Preparatory Phase* (H2020-INFRADEV-2016-2017, Development and long-term sustainability of new pan-European research infrastructures)

PI of CNR-ISTM Unit and leader of WP2 (MOLAB transnational access activity), IPERIONCH *Integrated Platform for the European Research Infrastructure ON Cultural Heritage* (H2020 INFRAIA-1-2014-2015)

PI of CNR-ISTM Unit and leader of WP8 (Non invasive assessment of new materials performance), HEROMAT *Protection Of Cultural Heritage Objects With Multifunctional Advanced Materials* (7FP NMB, Project Number 282992) 2011-2015

PI of CNR-ISTM Unit for IT@CHA *Tecnologie Italiane per applicazioni avanzate nei Beni Culturali* (PON 2007-2013)

PI of CNR-ISTM Unit within the project SICH *Sustainability in Cultural Heritage* (PRIN 2010 - MIUR Italy)

PI of CNR-ISTM Unit within the project *New methods and materials for the conservation of contemporary art* (PRIN 2008 MIUR, Italy)

PI of CNR-ISTM Unit within the project *Advanced technology for the knowledge, conservation and valorization of ceramics, glasses and mosaics of the Mediterranean area* (FIRB03 - MIUR, Italy)

PI of the project *Non invasive UV-Vis fluorimetry for the investigation of CH materials* (Progetto Giovani Ricercatori Agenzia 2000 - CNR, Italy)

SUPERVISION OF GRADUATED AND POSTDOCTORAL FELLOWS

2001-present (co)advisor of 12 PhD students in **Chemical Sciences for Cultural Heritage** at University, of Perugia (9), University of Florence (1), Chicago Northwestern University (1), New University of Lisbon (1)

2001-present **supervision of 10 postdoctoral fellows** (CNR-ISTM, Perugia and Dept. Chemistry Perugia University).

COLLABORATORS (last 48 months)

Dr. J. Delaney (National Gallery of Art, Washington DC, US); Dr. F. Casadio (Art Institute of Chicago, US), Prof. K. Janssens (Antwerp University, BE); Prof. J. Mass (Delaware University, US); Prof. K. Grey (Northwestern University, Chicago, US); Prof. S. Kazarian (Imperial College, London, UK); Prof. E. Hendriks (Amsterdam University, NL); Prof. Ph Colomban (Pierre and Marie Curie University, Paris, FR), Prof. M.J. Melo (New University of Lisbon, PT), Prof. P. Targowsky (Torun University, PL), Dr. Sophia Sotiropoulou (FORTH, Hellas, GR); C. Frosinini (OPD, Italy), Dr. R. Fontana (CNR, IT), Dr. M. Picollo (CNR, IT), Dr. Roberto Scopigno (CNR, IT), Prof. L. Sorace (Florence University, IT), Prof. I. Bonaduce (Pisa University, IT).

PUBLICATIONS IN ISI (International Scientific Indexing) JOURNALS (June 2019)

Total publications: **133** (see <https://orcid.org/0000-0001-6091-9922>)

Google Scholar: H index = **45**, total citation **5228**

WoS: H index = **34**, total citation **2810**

SELECTED 10 ISI PUBLICATIONS (Impact factor at 2016)

C. Miliani, L. Monico, J. Melo, S. Fantacci, A. Romani, K. Janssens, *Photochemistry of Artists' Dyes and Pigments: Towards Better Understanding and Prevention of Colour Change in Works of Art*, **Angewandte Chemie**, (2018), DOI: 10.1002/anie.201802801, **IF=11,99**

F. Gabrieli, F. Rosi, A. Vichi, L. Cartechini, L. Pensabene Buemi, S. G. Kazarian, C. Miliani *Revealing the nature and distribution of metal carboxylates in Jackson Pollock's Alchemy (1947) by micro attenuated total reflection FTIR spectroscopic imaging* **Analytical Chemistry**, 89 (2017) 1283-1289. **IF=6.3**

B. Brunetti, C. Miliani, F. Rosi, B. Doherty, L. Monico, A. Romani, A. Sgamellotti *Non-invasive investigations of paintings by portable instrumentation: the MOLAB experience* **Topics in Current Chemistry** (2016) 374, 1-35. **IF=4.0**

F. Rosi, C. Grazia, F. Gabrieli, A. Romani, M. Paolantoni, R. Vivani, B. G. Brunetti, P. Colomban, C. Miliani, *UV-Vis-NIR and micro Raman spectroscopies for the non destructive identification of Cd_{1-x}Zn_xS solid solutions in cadmium yellow pigments* **Microchemical Journal**, 124 (2016) 856-867. **IF=3.0**

F. Rosi, A. Daveri, P. Moretti, B. G. Brunetti, C. Miliani *Interpretation of mid and near-infrared reflection properties of synthetic polymer paints for the non-invasive assessment of binding media in twentieth-century pictorial artworks* **Microchemical Journal**, 124 (2016) 898-908. **IF=3.0**

A. Amat, C. Miliani, S. Fantacci, *Structural and electronic properties of Chrome Yellow and its light sensitive sulfate-substitute compounds* **RCS Advances** 6 (2016) 36336. **IF=3.1**

L. Monico, K. Janssens, E. Hendriks, F. Vanmeert, G. Van der Snickt, M. Cotte, G. Falkenberg, B.G. Brunetti, C. Miliani *Evidence for degradation of the chrome yellows in Van Gogh's Sunflowers: a study by non-invasive In situ methods and synchrotron-radiation-based X-ray techniques* **Angewandte Chemie** 127 (2015) 14129-14133. **IF=11.99**

F. Rosi, C. Miliani, R. Braun, R. Harig, D. Sali, B.G. Brunetti, A. Sgamellotti "Noninvasive analysis of paintings by mid-infrared hyperspectral imaging" **Angewandte Chemie**, 125 (2013) 5366-5369. **IF=11.99**

Janssens, K.; Alfeld, M.; Van der Snickt, G.; De Nolf, W.; Vanmeert, F.; Radepont, M.; Monico L.; Cotte, M.; Falkenberg, G; Miliani, C.; Brunetti, B. G. *The use of synchrotron radiation for the characterization of artists' pigments and paintings*, **Annual Review of Analytical Chemistry** 6 (2013) 399-425. **IF=7.4**

C. Miliani, F. Rosi, B.G Brunetti, A. Sgamellotti, *In situ Non-invasive Study of Artworks: the MOLAB Multi-technique Approach*, **Accounts of Chemical Research** 43 (2010) 728-738. **IF=20.3**

BOOKS

Author of 11 Chapters on Heritage Science books and catalogues; Co-Editor of *Science and Art: The painted surface*, Royal Society of Chemistry, London, 2014

LINVITED LECTURES

Invited as *Speaker/Chairman* in more than 20 National/International Congresses in past ten years (e.g. Gordon Conference 2011/2018, CHEMCH 2018, YOCOUCU, 2017, TECHNART 2016, Raman in Art and Archaeology 2008/2015)

PUBLIC ENGAGEMENT AND OUTREACH ACTIVITY

TEDxCNR, Rome, October 2016 SCIENZA PER L'ARTE ON THE ROAD <https://www.youtube.com/watch?v=Kbtj3yoQS8M>
ALCHIMIA DI JACKSON POLLOCK. Viaggio all'interno della materia, Fondazione Peggy Guggenheim, Venezia (14/02/2015- 14/09/2015)

Nautilus - Il bello della scienza - Rai Scuola (<http://www.raiscuola.rai.it/articoli-programma-puntate/nautilus-il-bello-della-scienza/23842/default.aspx>)

Nautilus - I girasoli di Van Gogh - Rai Scuola (<http://www.raiscuola.rai.it/articoli-programma-puntate/costanza-miliani-i-girasoli-di-van-gogh/24930/default.aspx>)

RaiNews TG ARTE MEDIA; 8 marzo 2016 (<http://www.rainews.it/dl/rainews/TGR/media/Umbria-restauro-Molab-chirurgia-arte-bedc90f5-3491-4289-9da1-ae19004049b9.html>)

Wired NextFest, Festival della Scienza Genova. Europe Science Open Forum
Sapere, Corriere della Sera, Wired, New Scientist, Chemical and Engineering news.

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Naples, January 2021