Curriculum del Prof. Brunetto Giovanni Brunetti

Professore Ordinario di Chimica generale e inorganica presso il Dipartimento di Chimica, Biologia e Biotecnologie dell'Università di Perugia, fino al 31 Ottobre 2015.
1995-1997 Membro della Giunta del Dipartimento di Chimica dell'Universita' di Perugia.
1989–2015 Membro del Collegio dei Docenti del Dottorato in Scienze Chimiche dell'Universita' di Perugia.
1995-2000: Membro del Board della *Chemical Physics Section* della *European Physical Society*
Dal 2017 a oggi: Membro del Consiglio Scientifico del Consorzio Interuniversitario per la Scienza e Tecnologia dei Materiali, INSTM, dove è Responsabile della Commissione "Tutela del patrimonio culturale".
Dal 2018 a oggi: Membro del Consiglio Scientifico di E-RIHS_Francia (www.e-rihs.fr), polo francese della *European Research Infrastructure on Heritage Science*.
Dal 2019 a oggi: Chairman dello *Scientific Advisory Board* di IPERION-HS (*Integrated Project for the European Research Infrastructure on Heritage Science.*

Direzione e coordinamento della ricerca (pertinente al bando)

Responsabile dell'Unità di Perugia nel progetto "Materiali utilizzati nella realizzazione dei dipinti nell'Italia centrale dal XII al XVI secolo e loro degrado" nell'ambito del Progetto Finalizzato Beni Culturali del CNR (1998-2001).
Coordinatore Scientifico dell'Unità: *Innovative technologies for the conservation and restoration of cultural heritage consisting of ceramics*, nell'ambito del "Progetto Mediterraneo: Ricerca e Formazione per i Paesi Terzi" del CNR (1999-2000).
Coordinatore del Progetto europeo (*Research Infrastructures*) LabS-TECH, *Laboratories on Science and Technology for the conservation of European Cultural Heritage*, 5th FP, HPRI-CT-2000-40018 [11 partner] (2000-2004).
Coordinatore della *European Integrated Infrastructure Initiative* EU-ARTECH, *Access, Research and Technology for the Conservation of the European Cultural Heritage*, 6th FP, RII3-CT-2004-506171 [12 partner] (2004-2009).
Responsabile dell'Unità di Perugia nello *European Project* (Marie Curie) EPISCON, *European PhD in Science for Conservation*, MEST-CT-2005-020559 (2005-2009).
Responsabile dell'Unità di Perugia nel progetto PRIN 2006: *Development of specific methodologies for the non-invasive study of materials and techniques of modern and contemporary art* (2006-2009).
Responsabile dell'Unità di Perugia nel progetto PRIN 2008: *Development of spectroscopic, chemometric and immunological tools for the microscale mapping of organic compounds in painting materials* (2010-2012)
Coordinatore dello *European Integrated Project* CHARISMA, *Cultural Heritage Advanced Research Infrastructures: Synergy for a Multidisciplinary Approach to Conservation*, 7th FP, n.228330 [22 partner] (2009-2014).
Responsabile scientifico dell'Università di Perugia (Terza Parte del Coordinatore CNR) nell'ambito di IPERION-CH, *Integrated Project of European Research Infrastructures on Cultural Heritage*, H2020. [24 partner] (2015-2019).

Insegnamenti e incarichi accademici (pertinenti al Bando)

- a.a.1998-99: Affidamento dell'insegnamento di "Chimica" presso il *Corso di Diploma in Materiali per la Conservazione del Costruito Antico e Moderno* della Facolta' di Ingegneria dell'Università di Perugia.
- a.a.2001-2002 Affidamento di "Chimica generale" e di "Chimica dell'ambiente e dei beni culturali" presso il *Corso di Laurea in Conservazione dei Beni Culturali* della Facolta' di Lettere dell'Università di Perugia
- a.a.2002-2003 e a.a.2003-2004: Affidamento di "Chimica Generale" per il *Corso di Laurea Interfacoltà in Tecnologie per la conservazione e il restauro dei beni culturali*

- 2004 Tutor del Master di II Livello in "*Conservazione preventiva e manutenzione programmata dei beni culturali*" dell'Università di Perugia.
- dall'a.a.2004-2005 fino all'a.a.2008-2009: Affidamento di "Chimica dell'ambiente e beni culturali" presso il *Corso di Laurea Interfacoltà in Tecnologie per la conservazione e il restauro dei beni culturali* dell'Università di Perugia
- dall'a.a.2006-2007 fino all'a.a.2014-2015 Affidamento di "Chimica del restauro e beni culturali" per il *Corso di Laurea in Chimica.* dell'Università di Perugia.

Attivita' presso laboratori esteri

- 1978 Estate presso il Lawrence Berkeley Laboratory, University of California, Berkeley, USA nel, nel quadro di un contratto NATO per ricerche in collaborazione con il Prof. Y.T. Lee, Premio Nobel per la Chimica 1986.
- 1983 Ricerche presso il Dipartimento di Chimica dell' Universita' di Edimburgo, UK. Nel periodo, segue alcuni studenti di PhD in Chimica.
- 1998 e 1999 Ricerche presso la *School of Chemistry* dell'Universita' di Osaka, JP, nel laboratorio del Prof. Toshio Kasai. Durante questo periodo visita le Universita' di Kyoto e Sendai con seminari sulle proprie attività di ricerca.
- 1999 Membro di Commissione di Dottorato in Fisica presso l'*Universite' de la Bretagne Occidentale* di Brest, FR
- 2000 Membro di Commissione di Dottorato in Chimica presso l'*Universitat de Barcelona*, ES.
- 2009 Membro di Commissione di Dottorato in Chimica presso l'*Université Pierre et Marie Curie*, Parigi, FR.
- 2023 Membro di Commissione di Dottorato in Scienze della Terra e dello Spazio presso *l'Università di Evora*, PT (Argomento: *Innovative conservation techniques for bio-deteriorated and soiled ornamental stones in urban areas: Laser versus plasma vapour cleaning*)

Organizzazione di conferenze, seminari e scuole (pertinenti al bando)

- 2000 "Euro-Mediterranean Post-Graduate *Advanced School on Materials and Technologies for the Conservation and Restoration of Ceramics Cultural Heritage*" (Perugia, Università). *Chairmann.*
- 2004 International Workshop on *The Painting Technique of Pietro Vannucci, called il Perugino* (Perugia, Galleria Nazionale dell'Umbria) *Chairman.*
- 2005 International Workshop on *Non-destructive analysis of cultural heritage artefacts* (Amsterdam, Cultureelerfgoed Labs) *Organising Committee.*
- 2011 International Workshop on *Diagnostics in cultural heritage*, Roma, Palazzo Corsini, *Organising Committee.*
- 2019 International Symposium on *Leonardo and his circle: Painting technique in the light of restorations and scientific studies*, Roma, Palazzo Corsini, *Organising Committee.*

Piu' di 20 Conferenze Invitate a Convegni internazionali e, inoltre, Seminari presso: *Centre de Recherche et Restauration des Musées de France (Palais du Louvre); National Gallery of London; Metropolitan Museum of New York; The Paul Getty Conservation Institure of Los Angeles; The Victoria and Albert Museum of London; Museu Nacional d'Art de Catalunya (Barcelona); National Palace Museum of Taipei;* e altre istituzioni museali e di conservazione.

Autore di circa180 pubblicazioni nella letteratura scientifica internazionale (di cui più di 100 sul tema della diagnostica artistica) e co-Editore di:

-un numero speciale di *Accounts of Chemical Research* (2010), intitolato *Advanced Techniques in Art Conservation.*

-due numeri speciali di Kermes intitolati *The painting technique of Pietro Vannucci, called il Perugino* (2004) e *Caravaggio's Painting Technique* (2011).

-due volumi, stampati della *Royal Society of Chemistry*, intitolati *Science and Art. The Painted Surface* (2014) e *Science and Art. The Contemporary Painted Surface* (2020).

- il volume 347 della Serie: *Atti dei Convegni Lincei* intitolato *Leonardo and his circle: painting technique in the light of restorations and scientific studies* (2023).

SELEZIONE di PUBBLICAZIONI SCIENTIFICHE
del Prof. Brunetto Giovanni Brunetti
(a partire dal 2003)

- B. Brunetti
Science and technology for the conservation of the European cultural heritage,
Editor: A.M. Johansson (European Commission, Directorate-General for Research), Bruxelles (2003)

-B.Brunetti, M.Massi, M.Matteini, S.Porcinai, I.Sandu, A.Sgamellotti
"Il network LabS TECH e l'inchiesta sui materiali e metodi per la conservazione in Europa"
OPD Restauro **14**, 121 (2003)

-C.Viti, M.Mellini, I.Borgia, A.Sgamellotti, B.Brunetti
"Microtexture and microchemistry of glaze and pigments in Italian Renaissance pottery from Gubbio and Deruta"
J. of Cultural Heritage **4**, 199 (2003)

- S. Padovani, I. Borgia, B. Brunetti, A. Sgamellotti, A. Giulivi, F. D'Acapito, P. Mazzoldi, C. Sada, G. Battaglin
"Silver and copper nanoclusters in the lustre decoration of Italian Renaissance pottery:an EXAFS study"
Appl. Phys. A **79**, 229 (2004).

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"Characterisation of decorations in Iranian (10^{th}-13^{th} century) lustreware"
Appl. Phys. A **79**, 257 (2004).

-F. Rosi, C. Miliani, I. Borgia, B. Brunetti, A. Sgamellotti
"Identification of nineteenth century blue and green pigments by *in situ* XRF and microRaman spectroscopy",
J.Raman Spectrosc. **35**, 610 (2004).

- C. Seccaroni, P. Moioli, I. Borgia, B. Brunetti, A. Sgamellotti
"Four anomalous pigments in Perugino's palette: Statistics, context, hypotheses"
in **The Painting Technique of Pietro Vannucci, called il Perugino**, Proceedings of the LabS TECH workshop, B.Brunetti, C.Seccaroni, A.Sgamellotti Eds., Nardini, Firenze, Italy, pp. 29-41 (2004).

-C. Ricci, I. Borgia, B. Brunetti C. Miliani, A. Sgamellotti, C. Seccaroni, P. Passalacqua
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J.Raman Spectrosc. **35**, 616 (2004).

- C.Miliani, A.Sgamellotti, B.Brunetti, I.Borgia, C.Ricci
"Non-invasive characterisation of contamination and alteration materials by fiber optic FT-IR in-situ measurements"
in **Exploring David, Diagnostic Tests and State of Conservation,** S.Bracci, M.Matteini, R. Scopigno Eds., Giunti, Firenze, pp.165-169 (2004)

- C.Miliani, C.Ricci, F.Rosi, I.Borgia, B.Brunetti, and A.Sgamellotti
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in ***Proceedings of IRUG 6*** *- Sixth Infrared and Raman Users Group Conference*, Florence, 2004, pp.213-219.

- C. Ricci, I.Borgia, B.Brunetti, A.Sgamellotti, B.Fabbri, M.C.Burla, G.Polidori.
"A study on late medieval transparent glazed pottery and archaic majolica from Orvieto (central Italy)"
Archaeometry, **47**, 557 (2005)

- B.G. Brunetti, D. Pinna, M. Matteini, C. Miliani, L. Pezzati
"MOLAB: a transnational access service for *in-situ* non-invasive studies of the European cultural heritage"
in ***Proceedings of ART2005***- *8th International Conference on Non-destructive Investigations and Microanalysis for the Diagnostics and Conservation of the Cultural and Environmental Heritage*, Lecce, Italy, 2005

- C. Ricci, L. Cartechini, C. Miliani, B. Brunetti, A. Sgamellotti
"*In situ* spectroscopic study of I-II B.C. polychrome etruscan urns"
in ***Proceedings of ART 2005***- *8th International Conference on Non-destructive Investigations and Microanalysis for the Diagnostics and Conservation of the Cultural and Environmental Heritage*, Lecce, Italy, 2005

- R.Rinaldi, L.Cartechini, W.Kockelmann, S.Bonamore, A.Sgamellotti, B.Brunetti
"Non destructive study of Etruscan bronzes by neutron scattering"
in *Archaeometry 2004. Abstracts e Atti del III Congresso Nazionale dell'AIAr*, Bressanone 2004, Patron Editore, Bologna, pp. 175-185 (2005);

- B. G. Brunetti, M. Matteini, C. Miliani,L. Pezzati, D. Pinna
"MOLAB, a mobile laboratory for *in situ* non-invasive studies in arts and archaeology"
in ***Proceedings of LACONA VI***, Vienna, September 2005.

- R. Bellucci, C.Frosinini, B.G. Brunetti, L.Pezzati
"La Vergine delle Rocce di Leonardo: sorprese nell'underdrawing della versione di Londra"
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- F.Presciutti, D.Capitani, A.Sgamellotti, B.G. Brunetti, F.Costantino, S.Viel, A.Segre
"EPR, SEM-EDS, XRPD, NMR characterization of iron rich fired clays"
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- C.Ricci, C.Miliani, B.Brunetti, A.Sgamellotti
"Non-invasive identification of surface materials on marble artifacts with fiber optic mid-FTIR reflectance spectroscopy"
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- S. Padovani, D. Puzzovio, C. Sada, P. Mazzoldi, I. Borgia, L.Cartechini, A. Sgamellotti, B.G. Brunetti, F. Shokoui, P. Oliaiy, J. Rahighi, M. Lamehi-Rachti, F. D'Acapito,C.Maurizio, E.Pantos
"XAFS study of copper and silver nanoparticles in glazes of Medieval Middle-East lustreware (10^{th} -13^{th} century)"
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- L.Cartechini, R.Rinaldi, W.Kockelmann, S.Bonamore, D.Manconi, I. Borgia, P. Rocchi, B. Brunetti, A. Sgamellotti
"Non-destructive characterization of compositional and textural properties of etruscan bronzes: a multi-method approach"
Appl. Phys. **A 83**, 631 (2006).

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"Glancing incidence x-ray diffraction of Ag nanoparticles in gold lustre decoration of Italian Renaissance pottery"
Appl. Phys. **A83**, 543 (2006)

- F. d'Acapito, C. Maurizio, B. Brunetti, L. Cartechini, S. Quartieri, R. Arletti
"Archaeometric studies at the GILDA beamline at the European Synchrotron Radiation Facility"
Il Nuovo Cimento C **30**, 1 (2007)

- C. Miliani, F. Rosi, I. Borgia, P. Benedetti, B.G. Brunetti, A. Sgamellotti
"Fiber-optic mid-FTIR reflectance spectroscopy: a suitable technique for in-situ studies of mural paintings"
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J.Cult. Heritage, **8**, 65 (2007).

-B. Doherty, M. Pamplona, R. Selvaggi, C. Miliani, M. Matteini, A. Sgamellotti, B.G. Brunetti
"Efficiency and resistance of the artificial oxalate protection treatment on marble against chemical weathering"
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J. Non-cryst. Solids **353**, 1054 (2007)

-I. Borgia, B. Brunetti, P.Moioli, C.Seccaroni, A.Sgamellotti
"Raphael in Perugia: the fresco of San Severo, the Pala Baglioni and the Gonfalone of Città di Castello"
in ***Raphael's Painting Technique: Working Practices before Rome***, Proceedings of the Eu-ARTECH workshop, Quaderni di Kermes, Editore Nardini, Firenze (2007).

-C.Miliani, C.Ricci, F.Rosi, A. Sassolini, F. Presciutti, C.Clementi, A.Romani, B.G. Brunetti, A.Sgamellotti, C.Seccaroni, P. Moioli.
"The 'Deposizione Baglioni' (1507): Non-Invasive study of Raphael's palette by complementary molecular spectroscopic techniques from X-rays to the near infrared"
in ***Raphael's Painting Technique: Working Practices before Rome***, Proceedings of the Eu-ARTECH workshop, Quaderni di Kermes, Editore Nardini, Firenze (2007).

-C.Miliani, F.Rosi, A. Burnstock, B.G.Brunetti, A.Sgamellotti
"Non-invasive in-situ investigation versus microsampling: a comparative study on a Renoir painting"
Appl. Phys. **A 89**, 849 (2007)

-S.Higgot, E.P.Sani, L.Cosentino, B.G.Brunetti, C.Miliani, L.Cartechini, A.Sgamellotti
"A scientific and technological approach to the sudy of Xanto's majolica at the Wallace Collection"
Faenza, XCIII, n.4-6, 325 (2007)

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J. Raman Spectrosc. **39**, 238 (2008) - DOI: 10.1002/jrs.1899

-M. Vagnini, L. Pitzurra, L. Cartechini, C. Miliani, B.G. Brunetti, A. Sgamellotti
"Identification of proteins in painting cross sections by immunofluorescence microscopy"
Analyt. Bioanalyt. Chem, **392**, 57 (2008) DOI 10.1007/s00216-008-2041-9

- F.Presciutti, J. Perlo, C. Miliani, B. Blümich, B.G. Brunetti, A. Sgamellotti
"Non-invasive NMR profiling of painting layers"
Appl.Phys.Lett. **93**, 033505 (2008)

-L. Cartechini, C. Miliani, B.G. Brunetti, A. Sgamellotti, C. Altavilla, E. Ciliberto, F. D'Acapito
"X-ray absorption investigations of copper resinate blackening in a XV century Italian painting"
Appl. Phys. **A 92**, 243 (2008).

- C. Clementi, B. Doherty, P.L. Gentili, C. Miliani, A. Romani, B.G. Brunetti, A. Sgamellotti
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- C.Miliani, K.Kahrim, B.G.Brunetti, A.Sgamellotti, A.Aldrovandi, M.R.van Bommel, K.J. van den Berg, H.Janssens
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- A.Romani, C.Clementi, C.Miliani, B.Brunetti, A.Sgamellotti, G.Favaro
"Portable equipment for luminescence lifetime measurements on surfaces"
Appl. Spectr. **62**, 1395 (2008) DOI: 10.1366/000370208786822250

- F. Rosi, A.Burnstock, K.J.Van den Berg, C.Miliani, B.G. Brunetti, A.Sgamellotti
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- F.Rosi, V.Manuali, C.Miliani, B.G. Brunetti, A.Sgamellotti, T.Grygar, and D.Hradil
"Raman scattering features of lead pyroantimonate compounds. Part I: XRD and Raman characterization of $Pb_2Sb_2O_7$ doped with tin and zinc"
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- K.Kahrim, A.Daveri, P.Rocchi, G.deCesare, L.Cartechini, C.Miliani, B.G.Brunetti, A.Sgamellotti.
"The Application of *in situ* mid-FTIR Fibre-Optic Reflectance Spectroscopy and GC-MS Analysis to Monitor and Evaluate Painting Cleaning"
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- F. Rosi, A. Daveri, C. Miliani, G. Verri, P. Benedetti, F. Piqué, B.G. Brunetti, A. Sgamellotti
"Non-invasive identification of organic materials in wall paintings by fiber optic reflectance infrared spectroscopy: a statistical multivariate approach"
Anal. Bioanal. Chem., **395**, 2097 (2009). DOI 10.1007/s00216-009-3108-y

-C.Clementi, C.Miliani, G.Verri, S.Sotiropoulou, A.Romani, B.G.Brunetti, A.Sgamellotti
"Application of the Kubelka-Munk correction for the self-absorption of UV-induced fluorescence emission in carmine lake paint layers",
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"Indagini scientifiche non invasive sui dipinti, Tutto Nero, 1956 e Bianco e Nero, 1971 117, Non-invasive scientific investigation on the paintings, Tutto Nero, 1956 and Bianco e Nero, 1971" in ***La collezione Burri a Città di Castello: dalla conoscenza alla prevenzione, The Burri Collection at Città di Castello: from Investigation to Prevention***, a cura di G. Basile, Gli Ori, Pistoia, 2009, ISBN 978-88-7336-357-6

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- F.Rosi, C.Miliani, C.Clementi, K.Kahrim, F.Presciutti, M.Vagnini, V.Manuali, A.Daveri, L.Cartechini, B.G.Brunetti, A.Sgamellotti
"An integrated spectroscopic approach for the non invasive study of modern art materials and techniques"
Appl. Phys. **A 100**, 613-624 (2010) DOI 10.1007/s00339-010-5744-7.

- C.Miliani, A.Daveri, L.Spabaek, A.Romani, V.Manuali, A.Sgamellotti, B.G.Brunetti
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