

PERSONAL INFORMATION



Monica Ferraris

Professor, Materials Science and Technology

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Department of Applied Science and Technology -DISAT
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Nationality Italian

Date of birth [REDACTED]

Gender female

WORK EXPERIENCE

January 2005 onwards Full Professor, Materials Science and Technology

Politecnico di Torino- Department of Applied Science and Technology -DISAT
Institute of Materials Physics and Engineering
Glasses, Ceramics and Composites-GLANCE (<http://www.composites.polito.it>)
24, corso Duca degli Abruzzi, 10129, Torino, Italy
(<http://www.polito.it>)

Main activities and responsibilities: Group Leader
Sector: Education and Research

March 2000- December 2004 Associate Professor, Materials Science and Technology

Politecnico di Torino-Materials Science and Chemical Engineering Department-DISMIC
24, corso Duca degli Abruzzi, 10129, Torino, Italy

Main activities and responsibilities: Group Leader
Sector: Education and Research

December 1992-February 2000 Research Scientist and Lecturer, Materials Science and Technology

Politecnico di Torino-Materials Science and Chemical Engineering Department-DISMIC
24, corso Duca degli Abruzzi, 10129, Torino, Italy

Main activities and responsibilities: Working in a research team carrying-out activities on glasses, glass-ceramics, composites for several applications.
Sector: Education and Research

January 1991- November 1992 Research Scientist

Fiat Research Centre (CRF) – Orbassano (TO), Italy

Main activities and responsibilities: Working in a research team carrying-out characterisation activities on metal and ceramic matrix composites for automotive, by SEM-Scanning Electron Microscopy, Auger- and EDS-Energy dispersion- spectroscopy.

Sector: Applied Research and Technology

June 1986-December 1990 Research Scientist

Italian Telecom Research Laboratory-CSELT- Torino, Italy

Main activities and responsibilities: Working in a research team carrying-out activities on innovative synthesis of fluoride glasses for ultra low loss optical fibers; fiber drawing.

Sector: Applied Research and Technology

EDUCATION AND TRAINING

October 1985-May 1986 Junior Research Scientist

Italian Telecom Research Laboratory-CSELT- Torino, Italy

Working in a research team carrying-out activities on optical fibers for telecom applications; Electron Paramagnetic Spectroscopy to detect defects in fibers; synthesis of fluoride glasses for ultra low loss optical fibers.

July 1985 Master Degree in Chemistry (110/110 e lode) (Summa cum laude)

University of Torino, Italy

October 1980-July 1985 (list of exams available on request)

Thesis : "FTIR – Fourier Transformed Infrared Spectroscopy and EPR - Electron Paramagnetic Spectroscopy for detection of absorbed species on MgO"

July 1980 Bachelor of Science (Maturità Scientifica): 58/60

Liceo Scientifico N. S. I. Palli, Casale Monf. AL, Italy

September 1975-July 1980

PERSONAL SKILLS AND COMPETENCES

Mother tongue(s) **Italian**

Other language(s)

Self-assessment

European level (*)

	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C1 Proficient user	C2 Proficient user	C1 Proficient user	C2 Proficient user	C2 Proficient user
French	C2 Proficient user	C2 Proficient user	C2 Proficient user	C2 Proficient user	A2 Basic user
German	A1 Basic user	A2 Basic user	A1 Basic user	A1 Basic user	A1 Basic user

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences

Team work: I have worked in various types of national and international research teams, from industrial research teams (Italian Telecom Research Centre, Fiat Research Centre) to University teams: Politecnico di Torino (Italy); Rennes University (France); Imperial College London (UK); Clemson University (USA); Anna University, Chennai, (India); Luoyang University (China).

Organisational skills and competences

Currently responsible of a team of about than 30 people at Politecnico di Torino, DISAT - Department of Applied Science and Technology, Italy (GLANCE - Glasses, ceramics and composites, <http://www.composites.polito.it/>) : the group is composed by ten lecturers/ associate researchers and about twenty PhD students, research assistants, one technician and two administrative assistant; undergraduate and graduate students. It is a multi-cultural group currently composted of people coming from all over the world.

Co-founder of J-TECH@POLITO - Advanced Joining Technologies at Politecnico di Torino (<http://www.j-tech.polito.it/>), an interdepartmental research centre on joining technology.

- Organizer of several Workshops, some of them listed below:
- "Le Mille Vite del Vetro", Murano 2018, Venezia 2022
- "Joining and Coating of Ceramic Matrix Composites", Politecnico di Torino (June 12, 1998), Italy
- "Ceramic Materials for Energy and Environmental Applications (CeraMEEA) ", Politecnico di Torino (July 5, 2012), Italy
- "Municipal Incinerator ashes: problem or resource?" July 2000, Vercelli, Italy
- Responsible of the Materials Laboratory "Open Lab" for under graduate students, POLITECNICO DI TORINO, II Engineering Faculty, Vercelli, Italy (1992-2011)
- Responsible of Glass Division, PhotonLab, ISMB (2004- 2017) - (ISMB-Torino, Italy <http://www.ismb.it/>)
- President elect of the Mechanical Engineering Council (organization of lecturing activity) (Consiglio di Settore) 2007-2011
- PhD School of Materials Science and Technology, Politecnico di Torino, member of the Faculty Board from its foundation.
- PhD School of Electronic Devices, Politecnico di Torino, member of the Faculty Board (up to 2013).
- Responsible for Politecnico di Torino of the Industrial Partnership and sponsored Chair with Indesit Company S.p.A. (2007-2012)
- Member of the American Ceramic Society, Engineering Ceramic Division, (1995-). Member of the Engineering Ceramics Division International Committee of the American Ceramic Society 2009-2011; 2019-21;
- Member of the Italian Ceramic Society, Germany Ceramic Society, European Ceramic Society
- Academician of the World Academy of Ceramics (2014-)
- KMM-VIN (<http://www.kmm-vin.info/>): Vice-Chair of the General Assembly and Vice-Chair of the Governing Council; Co-coordinator of WG2 Materials for Energy
- International Journal of Applied Ceramic Technology, Associate Editor (2014-2020) and co-Editor in Chief (2016-2020)
- Editorial Board: Nuclear Materials and Energy (<http://www.journals.elsevier.com/nuclear-materials-and-energy/editorial-board/>); Journal of the Korean Ceramic Society; Editorial Advisory Board of Recent Patents On Materials Science;
- Slovak Academy of Science International advisory board member (<https://www.sav.sk/?lang=en&doc=activity-advisory-board>)
- Italy Chapter of the American Ceramic Society: co-Chair
- Fellow of the American Ceramic Society (2018)
- Member of the Board of Directors of the American Ceramic Society (2019-)

- Member of International Committee of the ACerS's Engineering Ceramics Division (ECD) (2009-2011), as Member (2013-2016) and Chair (2015-2016) of ACerS's John Jeppson Award Committee and as Member of ACerS's Meeting Committee (since 2016).
- President Elect Nominee of the American Ceramic Society (2022)

Project coordinator or Work Package coordinator of several Italian (list available on request) and EU projects (some of them listed below):

1. Human Capital and Mobility (1992-1994): ERBCHBGCT920035 (1996-2000)
2. GLAMOROUS - Glass-based modulators, routers and switches IST-2000-28366 (coordinator work package on glasses) (2000-2003)
3. ODUPE - Optical Devices Using Photosensitivity for their Elaboration IHP-RTN-99-1 (partner) (2000-2003)
4. GLAPHOVIS - Glasses for Photosensitivity in the Visible IST-2001-37069 (coordinator) (2002)
5. EU-ASIALINK CN04-81260 (coordinator) (2004-2007)
6. KMM-NoE (502243-2) (coordinator work package on joining) (2004-2008)
7. EXTREMAT-IP - New materials for extreme environments (partner) (2005)
8. FEMAS - Fusion energy materials science (partner) (2008-2011)
9. MATRANS - Micro and nanocrystalline functionally graded materials for transport applications (FP7, collaborative project, partner) (2010-2013)
10. GLACERCO - Glasses and Ceramic Composites for High Technology Applications (ITN 264526, coordinator) (2011-2015)
11. NASLA - Nanostructured antiseptical coatings (FP7-SME-2010-1, 262209, coordinator) (2010-2012)
12. INNVIN - Innovative materials solutions for Transport, Energy and Biomedical sectors by strengthening integration and enhancing research dynamics of KMM-VIN (FP7.NMP partner – 2012 – 2015):
13. JOLIE - JOining of Lightweight alloys to advanced FGM mEtal-ceramic materials (FP6 MATERA, coordinator) (2012-2015)
14. ADMACOM - - Advanced manufacturing routes for metal/Composite components for Aerospace (FP7-FoF, coordinator) (2013-2016)
15. MATISSE - Materials' Innovations for a Safe and Sustainable nuclear in Europe (FP7-Fission, partner) (2013-2017)
16. COACH - Advanced glasses, Composites And Ceramics for High growth Industries (H2020 - partner) (2015-2018)
17. SMS - Sandwich material and structure (H2020-partner) (2015-2017)
18. Il Trovatore - Innovative cladding materials for advanced accident-tolerant energy systems (Euratom, partner) (2017-2022)
19. NEXTOWER - Advanced materials solutions for next generation high efficiency concentrated solar power (CSP) tower systems (H2020, partner) (2017-2021)
20. CASTLE - CAbin Systems design Toward passenger wellbEing (H2020 - CLEAN SKY 2, partner)
21. LIFT - Leadership in fiber technology (2009-2013,FP7-collaborative project, partner)

22. EURATOM Enabling Technology Research Project - Benchmarking of tungsten steel joints for the plasma facing wall of DEMO (partner) (2017-2018)
23. CEM-WAVE Novel Ceramic Matrix Composites produced with Microwave assisted Chemical Vapor Infiltration process for energy-intensive industries (partner) (2020-2023)
24. INNUMAT (partner) (2022) (<https://www.innumat.eu/>)
25. SCORPION (partner) (2022) (<https://cordis.europa.eu/project/id/101059511/it>)
26. NANOBLOC (coordinator) (2023-2026) (<https://cordis.europa.eu/project/id/101057597>)

(budget and partners available on request)

Technical skills and competences

Design, preparation and characterization of glasses, glass-ceramics, composites; their coating and joining; characterisation techniques: SEM, EDS, DSC, DTA, XRD, FTIR, UV-VIS, TEM, AFM, EPR.

Other skills and competences

-Lecturer:

(1992-2010): Materials for Engineering, Lectures given Mechanical Engineers, Civil Engineers, for Bachelor and Master courses

(1996-2007): Glasses for Photonics, Lectures given to Electronic and Materials Engineers for Bachelor courses

(2010-): Materials Science and Technology, Lectures given to Chemical, Electrical, Automotive and Mechanical Engineers, for Bachelor courses

(2017-): Advanced Materials for Energy: Lectures given to Energy Engineers Master students

(2019-): Advanced Materials for Nuclear Applications: Lectures given to Energy Engineers Master students

(2019-): Joining Technology, Lectures given to Mechanical Engineers PhD students

Yearly involved as lecturer for PhD courses on Glasses for Advanced Applications

-Visiting Researcher:

University of Rennes, France, Prof. J. Lucas's group, May-July 1987

-Visiting academic:

Imperial College, London, Prof. A. Boccaccini's group, June-July 2006, May 2007, June-July 2008, June 2009. (Erasmus grant)

Clemson University, SC, USA, Prof. K. Richardson, July 2009

-Invited lecturer:

- Luoyang University, China, September 2005
- KMM-Summer School, Udine, September 2006
- Anna University, Chennai, India, September 2006
- KMM-Post Graduated School on Functionally Graded Materials" Imperial College, London, UK, May 2007

I'm usually invited to give talks at the American Ceramic Society Meetings and other international conferences: I don't have a list. Some of them are: MS&T (Materials Science and Technology), ICACC (International Conference and Exhibition on Advanced Ceramics and Composites, Daytona Beach, FL) and at the ICFRM (International Conference on Fusion Reactor Materials).

Computer skills and competences

Competent with most Microsoft Office programmes

ADDITIONAL INFORMATION

My career profile was included in "Successful Women Ceramic & Glass Scientists & Engineers – 100 Inspirational Profiles" published by Lynnette Madsen in 2016.

Awards:

- American Ceramic Society Global Star Award 2011 (<https://ceramics.org/wp-content/uploads/2020/02/ICACC-Global-Star-Awardees.pdf>)
- American Ceramic Society Global Ambassador 2016 (<https://ceramics.org/wp-content/uploads/2013/03/ACerS-Global-Ambassador-Program-2019-1.pdf>)
- American Ceramic Society Engineering Ceramic Division "Bridge Building" Award 2020 (<https://ceramics.org/awards/bridge-building-award>)

Contact persons, references, etc.

Prof. Aldo Boccaccini, University of Erlangen-Nuremberg, Germany (aldo.boccaccini@ww.uni-erlangen.de)

Dr. M. Singh, NASA, USA (mrityunjay.singh-1@nasa.gov)

Prof. Kathleen Richardson, UCF, USA <kcr@creol.ucf.edu>

Dr. Y. Katoh, ORNL, USA (katohy@ornl.gov)

Prof. Dietmar Koch, University of Augsburg, Germany (dietmar.koch@mrm.uni-augsburg.de)

Prof. Toshihiro Ishikawa, Tokyo University of Science, Japan (ishikawa@rs.socu.ac.jp)

Prof. Gerard Vignoles, Université de Bordeaux, France (vinhola@lcts.u-bordeaux.fr)

ANNEXES

Over 300 hundred peer-reviewed journal publications and 14 patents on ceramics and composites.

http://www.swas.polito.it/rubrica/scheda_pers.asp?matricola=002025 click on "elenco pubblicazioni" for publication list, click on "elenco progetti" for recent funded projects

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[Scopus Author ID: 7004824296](https://scopus.com/authid/detail.url?authorID=7004824296)



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