

# Milena Salvo - Curriculum Vitae

**Milena Salvo** graduated in Chemistry (110/110 cum laude) at University of Torino (1992), PhD on Materials Engineering at Politecnico di Torino (1997), with a thesis concerning the joining of ceramic matrix composites for high temperature and thermonuclear fusion applications.

In 1998, she became assistant professor at Politecnico di Torino. She is now Associate Professor of Materials Science and Technology. Lecturer of 'Materials Science and Technology' for Energy Engineering and 'Advanced Ceramics' for Materials Engineering at Politecnico di Torino. In 2014, she was awarded the National Scientific Qualification as Full Professor.

She has considerable experience of international research on advanced materials. Her research activity has been dedicated mostly to advanced materials and composites:

- (i) joining of advanced materials (ceramic and ceramic composite materials) for high temperature applications;
- (ii) coating of advanced materials for oxidation and wear protection;
- (iii) development, production and characterisation of glass-ceramic and composite sealing materials for Solid Oxide Fuel Cells,
- (iv) vitrification and reuse of waste.

She is co-author of more than 150 papers on international journals, conference proceedings, book chapters, 3 patents in the field of advanced ceramics and 2 patent applications:

<http://porto.polito.it/view/creators/Salvo=3AMilena=3A002304=3A.html> . Scopus author ID: 7004749273.

## Participation in European and national research projects.

### European Projects

**NACGESA:** Novel antiferroelectric glass-ceramics for energy storage applications (FP 7) 2014-2016.

Coordinator

**CoACH:** Advanced glasses, Composites And Ceramics for High growth Industries European Training Network (H2020) 2015-2018. Coordinator

**KMM-NoE Network of Excellence (FP 6):** Knowledge based Multicomponent Materials for Durable and Safe Performance 2004 – 2009. Member of the PI Research Unit

**INNVIN (FP7):** Innovative materials solutions for Transport, Energy and Biomedical sectors by strengthening integration and enhancing research dynamics of KMM-VIN (2012-2015). Member of the PI Research Unit

**Extremat:** New Materials for Extreme Environments (IP, FP 6) 2004-2009. Member of the PI Research Unit

**FEMAS:** Fusion Energy Material Science (FP 7) 2008-2011. Member of the PI Research Unit

**MATRANS:** Micro And Nanocrystalline Functionally Graded Materials For Transport Applications (FP 7) 2010-2013. Member of the PI Research Unit.

**GlaCERCo:** Glass and Ceramic Composites For High Technology Applications- Initial Training Network (FP 7) 2011-2015. Member of the Coordinator Team.

**JOLIE:** JOining of Lightweight alloys to advanced FGM mEtal-ceramic materials (Matera 2010). Member of the Coordinator Team.

**Matisse:** Materials' Innovations for a Safe and Sustainable nuclear in Europe (VII PQ) 2013-2017. Member of the PI Research Unit

**ADMACOM:** Advanced manufacturing routes for metal/Composite components for Aerospace (FP 7) 2013-2016. Member of the Coordinator Team.

**GrInHy:** Green Industrial Hydrogen via reversible high-temperature electrolysis (H2020). Member of the PI Research Unit.

**CASTLE - Clean Sky 2:** CAbin Systems design Toward passenger wellbEing (2016-2021). Member of the PI Research Unit.

**ENEA Eurofusion.** Member of the PI Research Unit.

## Italian projects

Project “Young Researchers” (PROGETTO GIOVANI RICERCATORI, Politecnico di Torino): vitrification and reuse of waste for the production of glass-ceramics and composites”, 2001. Responsible of the project.

Three year research contract CNR 01939.CT03 (glass coatings). Member of the PI Research Unit.

Three year research contract 00919.PF34 MSTA-II “Innovative glass and glass-ceramic matrix composites”. Member of the PI Research Unit.

Cofin 2001-2002 “Materials for thermonuclear fusion”, in collaboration with Prof. Zanino, Energetics Department of the Politecnico di Torino. Member of the PI Research Unit.

Cofin 2004-2005 “Innovative materials and safety analysis for ITER” in collaboration with Prof. Zucchetti, Energetics Department of Politecnico di Torino. Member of the PI Research Unit

**MULTI.S.S** (Design and in-house development of Solid Oxide Fuel Cell stacks for dealing with multiple fuels- three year project funded by Regione Piemonte- 2007-2011). Member of PI Research Unit

**INDUSTRIA 2015**: Energy Efficiency, an initiative financed by the Economic Development Ministry. New appliances to reduce energy consumption and environmental impact. (2009-2014). In collaboration with Indesit Company S.p.A. Member of the PI Research Unit.

**RICCo**: Resue of biomass ash (project funded by Ministero delle Politiche Agricole e Forestali, 2010-2013). Part of the coordinator team

**NANOSOFC**: Design and development of a nanostructured SOFC for intermediate temperature (project funded by Regione Piemonte, 2010-2012 PI of the Research Unit

**Italy-Japan** 2011, 2012, 2013, 2014, 2015: joining and sealants for SiC/SiC for high temperature applications (project funded by Ministero degli Affari Esteri). Member of the PI Research Unit

**UHT**. Innovative Metal-Ceramic Joints For High And Ultra-High Temperatures Applications. From Design And Production Processes, Trough Advanced Experiments, To Mathematica Modelling, For A Virtual Assessment of The Mechanical Response (project funded by Fondazione Cariplo, 2011-2013). Member of the PI Research Unit

**MA2RE**: builgind materials with low embedded energy (project funded by dai Polo di Innovazione Green Buildings and Hydrogen Technologies, 2011-2014). Member of the Coordinator Team.

**CADET** - Capture and Deorbiting Technologies (2013-2015). Member of the PI Research Unit

**GREEN FACTORY FOR COMPOSITES**. Bando Fabbrica Intelligente. Member of the PI Research Unit

Responsible of the project “**SENSORE OTTICO E PROCEDIMENTO DI REALIZZAZIONE DI UN TALE SENSORE**”, bando “Proof of Concept” (Politecnico di Torino) 2018.

## Partecipation in industrial projects

SEP- Bordeaux-France (ceramic matrix composites) (contract n° 528086)

ENEA- Frascati - Roma (glass coatings for ceramic matrix composites) (contract n° 1782)

ENEA- Frascati - Roma (2 contracts: glass coatings)

ENEA-EFDA (joining of C/C to Cu for ITER)

ANSALDO Energia-Genova (2 contracts: joining of C/C to Cu for ITER)

ANSALDO Ricerche-Genova (Stripping of Al from superalloys)

Thales Alenia Space- France (2 contracts: joining of advanced composites for aerospace applications)

Responsible of two research contracts with Indesit Company “Development of innovative materials and technologies to improve the performance of appliances”

Responsible of a research contract with Airbus Defence and Space – Germany (Airbus Defence and Space GMBH -ID/DB 1444 - INSTM, 2017).