



Europass Curriculum Vitae

Personal information

Surname(s) / First name(s) **Paladino Ombretta**

Address(es) c/0 DICCA – Università di Genova
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Nationality Italian

Date of birth 30/06/1962

Gender Female

Work experience

Dates 2007- 2014

Occupation or position held Chairperson of the Council for the M.Sc. and B.Sc. Courses in Environmental & Energy Engineering

Main activities and responsibilities Directorate (managing and planning of teaching activities)

Name and address of employer University of Genoa

Type of business or sector Education & Research

Dates 2000- currently

Occupation or position held Professor – University of Genoa - Italy

Main activities and responsibilities Chair of "Mass Transport Processes", "Environmental Impact of Chemical Processes", "Biofuels & Waste to Energy", "Dynamics and Control of Chemical Reactors"– Faculty of Engineering

Name and address of employer University of Genoa

Type of business or sector Education & Research

Dates 1995- 2000

Occupation or position held Research Professor – University of Genoa - Italy

Main activities and responsibilities Regular professor of "Systems Analysis in Chemical Engineering" and "Principles of Chemical Engineering II", Faculty of Engineering

Name and address of employer University of Genoa

Type of business or sector Education & Research

Education and training

Dates March 1994 - March 1996

Title of qualification awarded | *Post-Doctorate*
Name and type of organisation providing education and training | *Environment Institute, Joint Research Centre of the European Commission*

Dates | *November 1989, PhD title in 1990*

Title of qualification awarded | *PhD in Chemical Engineering & Processes*
Name and type of organisation providing education and training | *Politecnico di Torino*

Dates | *July 1985*

Title of qualification awarded | *M.Sc. in Chemical Engineering (magna cum laude)*
Name and type of organisation providing education and training | *University of Genoa*

Personal skills and competences

Author of about 100 scientific paper on international refereed journals and on proceeding of international congresses. Expert on identification of industrial and man-made hazards by means of dynamic modelling of reactive chemicals, modelling of groundwater pollution, field and lab data analysis and pollutant sources identification; evaluation of both outdoor and indoor environmental and human health risk. Expert on reduction of industrial and man-made hazards by process optimization, on-line fault diagnosis and control of plants; green chemical processes, solid-waste and waste-water management, recycle and energy recover, remediation techniques.

Mother tongue(s) | *Italian*

Additional information

Research Projects and Consulting Activity

2013 "Development of a low cost, open hw, real time, web based SCADA system", project partially funded by UNIGE.

2012 "Optimization of a biomass gasification-combustion process", AGRAS Energia s.r.l.

2011 "Operation analysis and verification of the Zero Liquid Discharge system on S. Severo Power Plant", ANSALDO Energia S.p.A.

2010 – 2012 "Analysis of reactivity and transport of Nanoscopic Zero Valent Iron (NZVI) for in-situ groundwater remediation of chlorinated hydrocarbons" project funded by Italian Ministry of Research and University.

2008 - 2010 "Feasibility study and preliminary design of a solid waste treatment plant based on coupled gasification and anaerobic digestion", Genoa Municipality.

2006 - 2010 "BICEPS- Biogas Integrated Concept European Program for Sustainability", project funded by European Commission, EU TREN/05/FP6EN/607.65034/019904.

2006 "Groundwater quality model for the Pancevo NIS oil-refinery after Kosovo conflict" project funded by D'Appolonia S.p.A. and Italian Ministry of Environment.

2005 – 2006 "Advanced technologies for DNAPLs source identification, characterization and treatment" project funded by Italian Ministry of Research and University.

2005 "Optical methods for the study of pollutant dispersion in porous media" project funded by UNIGE.

2003 – 2005 "Reactive chemicals transport in saturated soils", project funded by UNIGE.

2002-2006 "MCFC Power Plants: from laboratory tests to commercialization", project FISR funded by Italian Ministry of Research and University.

2002 – 2005 "IRMATECH – Integrated Researches on Materials, Technologies and Processes to Enhance MCFC in a Sustainable Development" project funded by European Commission EU – ENKS-CT-2002-00647.

2001-2002: "Experimental design on porous materials used in MCFC (Molten Carbonate Fuel Cells)", project funded by UNIGE.

2001-2002: "Characterization of porous powders and materials for the production of Molten Carbonate Fuel Cells electrodes"; project funded by Ansaldo Fuel Cells S.p.A.

2000-2001 "Parameters estimation and sensitivity analysis of dynamic models for pollutants transport prediction", project funded by UNIGE.

1998-1999 "Development of models for the prediction of neuro-toxic effects of pesticides" project funded by UNIGE.

1994 - 1996: Technical surveys in Mediterranean areas (Tunisia, Libya) for studying desertification (research fellowship, European Commission)

1992 - 1996: Technical surveys in Mediterranean areas (Tunisia, Algeria, Morocco) for solar/hydrogen, co-generation, ANSALDO International, ANSALDO Sistemi Industriali S.p.A..

1993: "Neural networks for process diagnosis in real time", AUTOMA – ITALIMPIANTI S.p.A.

1993: "Process data reconciliation", ITALIMPIANTI S.p.A.;

1992: "Deep knowledge based models for a wastewater treatment plant", ITALIMPIANTI S.p.A.;

1992: Organization of training programs on waste-water plants operation (Morocco, Egypt), ANSALDO International, ANSALDO Industria Divisione Ambiente.

1991 - 1992: Organization of training programs on power plants operation (Jamaica, Yemen, Egypt), ANSALDO International, ANSALDO Industria S.p.A..

1990-1991: "Qualifications for a predictive deep knowledge based expert system for on-line diagnosis", FINMECCANICA, ANSALDO Ricerche S.p.A.;

1989-1991: "Dynamic simulation of a fluidized-bed incinerator", ITALIMPIANTI S.p.A.;

1989-1990: "Design of a deep knowledge based expert system for on-line diagnosis", ANSALDO Ricerche S.p.A.;

1985-1986: "Development of a fluid-dynamic model for the evaporation and the atmospheric dispersion of heavy gases after accidental losses", TECNIMONT (Montedison);

2000 - today: adviser to the Italian Court of Law for matters related to the operation of wastewater treatment plants, power plants, chemical plants and landfills; contamination of water and soils.

Recent papers in the field of Environmental Engineering

- 1) M. Massabò, O. Paladino, A. Bellin, A. Valocchi (2004). Transport of Reactive Solutes in Bimodal Porous Formations. **Geophysical Research Abstracts**, vol. 6, p. 5803, ISSN: 1029-7006.
- 2) F. Catania, M. Massabò, O. Paladino (2004). Parameters estimation in pollutant dispersion into sorbing soils with low conductivity lenses. **Geophysical Research Abstracts**, vol. 6, p. 5830, ISSN: 1029-7006
- 3) Catania F. and O. Paladino, 2005, Optimal Sampling Strategy for the Estimation of Dispersion Parameters in Soil Columns, **Chemical Engineering Transactions**, 7, 225-230.
- 4) F. Catania, M. Massabò, O. Paladino (2005). A simplified approach for evaluating transversal dispersion coefficient. **Geophysical Research Abstracts**, vol. 7, p. 7904, ISSN: 1029-7006.
- 5) Catania, F., M. Massabò, and O. Paladino, 2006, Estimation of transport and kinetic parameter using analytical solutions of the 2D advection-dispersion-reaction model, **Environmetrics** 17(2): 199-216.
- 6) Massabò M., Cianci R. and Paladino O., 2006, Some analytical solutions for two-dimensional convection–dispersion equation in cylindrical geometry, **Environmental Modelling & Software**, 21(5), 681-688
- 7) Marco Massabò, Federico Catania, Ombretta Paladino, 2007, A new method for laboratory estimation of the transverse dispersion coefficient, **Ground Water**, 45(3): 339-347
- 8) O. Paladino, M. Massabò, F. Catania, G. Bracco, “Spatial moments analysis: an application to quantitative imaging of contaminant distributions in porous media”, 2007, **Chemical Engineering Transactions**, 12, 15-21
- 9) C. Resini, S.Vogler, F. Catania, S. Berardinelli, A. Fedi, O.Paladino and G. Busca, 2007, Catalytic wet oxidation of phenol by (La_{0.8}Sr_{0.2})Mn_{0.98}O₃ catalyst in batch reactor, **Chemical Engineering Transactions**, 12,
- 10) Catania F., M. Massabò, M. Valle, G. Bracco and O. Paladino, 2008, Assessment of quantitative imaging of contaminant distributions in porous media, **Experiments in Fluids**, 44, 1, 167-177.
- 11) M. Massabò, F. Catania, D.D. Piazza, O. Paladino, 2008, Groundwater risk assessment of PCE at contaminated sites , **Fresenius Environmental Bulletin**, 17, 9, 1-8.
- 12) C. Resini, F. Catania, S. Berardinelli, O. Paladino and G. Busca, (2008), Catalytic wet oxidation of phenol over lanthanum strontium manganite, **Applied Catalysis B: Environmental**, 84, 3-4, 678-683
- 13) Catania F. and O. Paladino, (2009), Optimal sampling for the estimation of dispersion parameters in soil columns using an Iterative Genetic Algorithm, **Environmental Modelling & Software**, 24, 1, 115-123.
- 14) M. Massabò, F. Catania, O. Paladino (2010). A new method for laboratory estimation of the transverse dispersion coefficient. **Ground Water**, vol. 48, p. 17-18, ISSN: 0017-467X.
- 15) H. Dagdougui, E. Garbolino, Paladino O., R. Sacile (2010). Hazard and risk evaluation in hydrogen pipelines. **Management of Environmental Quality**, 21; 712-725.
- 16) A. Fedi, M. Massabò, Paladino O., R. Cianci (2010). A New Analytical Solution for the 2D Advection–Dispersion Equation in Semi-Infinite and Laterally Bounded Domain. **Applied Mathematical Sciences**, 4; 3733-3747.
- 17) Massabò M., Cianci R. and Paladino O., (2011). An Analytical Solution of the Advection Dispersion Equation in a Bounded Domain and Its Application to Laboratory Experiments, **Journal of Applied Mathematics**, ID 493014, 14 pages, 2011. doi:10.1155/2011/493014.
- 18) O. Paladino, M. Massabò (2012). A New Method for Laboratory Estimation of the Transverse Dispersion Coefficient . **Ground Water**, vol. 50, p. 178-179, ISSN: 0017-467X.