Europass Curriculum Vitae

Personal information

Surname(s) / First name(s)	**Paladino Ombretta**
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Website:	http://www.en3.unige.it/environ-chem-processes-lab/
Nationality	Italian
Date of birth	30/06/1962
Gender	Female

Work experience

Dates	*2000- currently*
Occupation or position held	*Professor (II Fascia) – University of Genoa - Italy*
Main activities and responsibilities	*Chair of "Mass Transport Processes","Dynamics and Control of Chemical Reactors", "Environmental Impact of Chemical Processes", "Biofuels & Waste to Energy",– Faculty of Engineering. Teaching, Ph.D. students supervision, final project supervision.*
Name and address of employer	*University of Genoa*
Type of business or sector	*Education & Research*

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). Coordination of the board of teachers.*
Name and address of employer	*University of Genoa*
Type of business or sector	*Education & Research*

Dates	*2011-2012*
Occupation or position held	*Chairperson of the Master Course "Gestione del Rischio Sanitario-ambientale nelle Emergenze"*
Main activities and responsibilities	*Directorate (managing and planning of teaching activities). Coordination of the board of teachers. Teaching.*
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.* *Teaching, Ph.D. students supervision, final project supervision.*
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 1986 - November 1989*
Title of qualification awarded	*Ph.D in Chemical Engineering & Processes*
Name and type of organisation providing education and training	*Politecnico di Torino*
Dates	*November 1980 - July 1985*
Title of qualification awarded	*M.Sc. and B.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, dynamical modelling and control of chemical reactors, on-line fault diagnosis; green chemical processes: solid-waste and waste-water management, recycle and energy recover, remediation techniques.

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.

Reviewer for the following International Journals: Environmental Modelling and Software, Water Research, Water Resources Research, Experiments in Fluids, Groundwater, Environmental Earth Sciences, Environmental Science and Pollution Research, Chemical Engineering Research and Design, Chemical Engineering Journal.

Memberships

Member of the Doctoral School in "Systems Engineering" (2008-2014)
Member of the Joint Committee for 'Didactics and Rights to Education' - Polytechnic School
Member of the 'Associazione italiana di Ingegneria Chimica' and 'Gruppo Ricercatori di Ingegneria Chimica dell'Università'.

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 chlorined hydrocarbons” project PRIN, 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 PRIN, 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 founded 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);

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) Massabó 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 (La0.8Sr0.2)Mn0.98O3 catalyst in batch reactor, ***Chemical Engineering Transaction***s, 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. Massabo, 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) Massabó 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.
19) O. Paladino (2014). Some Advanced Technologies for DNAPLs Source Identification and Characterization, ***Austin J Hydrol***. ,1(2): 2.
20) O. Paladino, M. Massabò, F. Fissore, A. Moranda (2015). Assessment of sediment contamination and sampling design in Savona Harbour, Italy, ***Marine Pollution Bulletin ,*** 91(1), 54-64.