#### CURRICULUM VITAE

**EUROPEAN FORMAT** 



## **PERSONAL INFORMATION**

Name, Surname

Giuseppe Mascolo

Address

House number, street name, postcode, city, country

Via Meucci 16, 76121 Barletta (BT), Italy

Telephone

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giuseppe.mascolo@ba.irsa.cnr.it

Nationality

Italian

Place and Date of birth

Barletta, 7/05/1963

### **WORK EXPERIENCE**

**CNR** Employee

Serial number 39274

Senior Research Scientist (Level II, Primo Ricercatore)

From 2001 – On going Name and address of employer Main activities and responsibilities

## **Senior Research Scientist**

Water Research Institute – IRSA, Via De Blasio n. 5, 70132 Bari, Italy

- ✓ Scientific responsible of research contracts between CNR-IRSA and private companies, research project funded by CNR and Puglia Region, activities and work packages in research projects funded by European Community
- Referee of international journals such as: Industrial and Engineering Chemistry Research, Journal of the Air & Waste Management Association, and Combustion Flame, Chemosphere, Water Research, Environmental Science & Technology, J. Hazardous Materials, Journal of Advanced Oxidation Technologies, Desalination, Catalysis Today, Journal of Environmental Management, International Journal of Environmental Analytical Chemistry, Royal Society of Chemistry, Applied Catalysis B: Environmental
- ✓ Evaluator of research projects for the Fonds de la Recherche Scientifique FNRS, Belgium, for the Ministry of Education and the Puglia Region
- ✓ Supervisor of experimental thesis of specialist or master degree courses, doctorate
  and master
- ✓ Tutor of scholarships and research grants
- ✓ Teacher in Higher Education courses, University and Master courses and specialization
- ✓ Effective member and Chairman of Boards of research grants, contracts and CNR scholarships

1998

# Visiting scientist

Name and address of employer

Institute of Environmental Technology - Department of Water Quality Control of Technical University of Berlin

Main activities and responsibilities

Working on the characterization of the toxic organic fraction of industrial wastewater

1993

# Visiting scientist

Name and address of employer Main activities and responsibilities

Environmental Sciences and Engineering Laboratory of the University of Dayton

Working on the formation and destruction kinetics of bromo- and chloro-dioxins during incineration of bromo and chloro-phenols

1992

Visiting scientist

Name and address of employer Main activities and responsibilities Water Research Centre (WRc) - Medmenham (UK)

Working on organic pollutants degradation by advanced oxidation processes

1988

Visiting scientist

Name and address of employer Main activities and responsibilities

Polymer Institute of Polytechnic of Zurich (E.T.H.) – Zurich, Switzerland

Working in the field of the reverse micelles chemistry

## **EDUCATION AND TRAINING**

1988 - 1984

Master's Degree in "Chemistry" (110/110 and honors)

Name and type of organisation providing education and training Principal subjects occupational skills covered Level in National classification

University of Bari "ALDO MORO", Department of Chemistry, Via Orabona 4, 70126 Bari, Italy

Thesis title: "Stereospecific synthesis of dienes and conjugated trienes through consecutive reactions of cross-coupling with organometallic compounds"

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### RESEARCH ACTIVITIES

Research sectors

- ✓ Degradation of organic pollutants by advanced oxidation processes
- ✓ Mechanisms of by-products formation during organic pollutants degradation
- ✓ Liquid chromatography-mass spectrometry (LC-MS)
- ✓ Determination of organic pollutants in wastewater, sludge and soils
- ✓ Thermal decomposition of hazardous materials for high temperature incineration
- ✓ Understanding formation of products of incomplete combustion (PICs) during incineration
- ✓ Process modifications for sewage sludge incineration to minimize PICs emission

Recent Scientific Activities

Coordination of several National R&D Projects. Coordination of R&D sub-projects in several national and European projects. Coordination of scientific WPs in several EU projects:

- ✓ LIMPID "Nanocomposite Materials for Photocatalytic Degradation of Pollutants" (2013-2015) Grant agreement n. 310177
- ✓ FRAME "A novel Framework to Assess and Manage contaminants of emerging concern in indirect potable reuse", Water JPI Water Challenges for a Changing World Joint Programming Initiative (2015-2017)
- ✓ ROUTES "Novel processing routes for effective sewage sludge management (2011-2014), Grant agreement" n. 265156
- ✓ **INNOWATECH** "Innovative and integrated technologies for the treatment of industrial wastewater" (2006-2010), Contract n. 036882

Books and articles (Last 5 years)

Co-author of more than 100 papers published in peer reviewed journals or presented to scientific conferences, book chapters and technical reports on different subjects within the environmental sciences and technologies.

Hirsch Index (HI) of 26 (Scopus).

- C. M. Braguglia, G. Bagnuolo, A. Gianico, G. Mininni, C. Pastore, <u>G. Mascolo</u>, "Preliminary results of lab-scale investigations of products of incomplete combustion during incineration of primary an mixed digested sludge", Environmental Science and Pollution Research, 23, 4585-4593, 2016;
- C. Pastore, L. di Bitonto, G. Mascolo, "Conversione della Frazione Organica dei Solidi Urbani (FORSU) in molecole di elevato valore: caratterizzazione ed ottimizzazione di processi termo-chimici sostenibili", in "La Ricerca Sulle Acque e Le Nuove Prospettive In Ambito Pubblico e Privato", a cura di E. Brugnoli V. F. Uricchio, Cacucci Editore, Bari, 2016, ISBN 978-88-6611-516-8;
- C. Pastore, L. di Bitonto, G. Del Moro, E. Barca, M. Pagano, G. Mascolo, "Valorizzazione della componente lipidica dei fanghi di depurazione: caratterizzazione, separazione ed efficace conversione in biodiesel", in "La Ricerca Sulle Acque e Le Nuove Prospettive In Ambito Pubblico e Privato", a cura di E. Brugnoli V. F. Uricchio, Cacucci Editore, Bari, 2016, ISBN 978-88-6611-516-8;

- 4. C. M. Braguglia, A. Coors, A. Gallipoli, A. Gianico, E. Guillon, U. Kunkel, <u>G. Mascolo</u>, E. Richter, T. A. Ternes M. C. Tomei, G. Mininni, "Quality assessment of digested sludges produced by advanced stabilization processes", Environmental Science and Pollution Research, 22, 7216-7235, 2015;
- 5. C. Pastore, M. Pagano, A. Lopez, G. Mininni, <u>G. Mascolo</u>, "Fat, oil and grease waste from municipal wastewater: characterization, activation and sustainable conversion into biofuel", Water Science and Technologies, 71, 1151-1157, 2015;
- S. Murgolo, F. Petronella, R. Ciannarella, R. Comparelli, A. Agostiano, M. L. Curri, G. Mascolo, "UV and solar-based photocatalytic degradation of organic pollutants by nanosized TiO<sub>2</sub> grown on carbon nanotubes. Catalysis Today, 2015, 240, 114-124;
- G. Del Moro, C. Pastore, C. Di laconi and <u>G. Mascolo</u>. "lodinated contrast media electrodegradation: process performance and degradation pathways", Science of the Total Environment, 2015, 506–507, 631–643;
- 8. G. Del Moro, A. Mancini, <u>G. Mascolo</u>, C. Di laconi, "Comparison of UV/H<sub>2</sub>O<sub>2</sub> based AOP as an end treatment or integrated with biological degradation for treating landfill leachates", Chemical Engineering Journal, 2013, 218, 133-1374;
- A. Gianico, C. M. Braguglia, <u>G. Mascolo</u>, G. Mininni, "Partitioning of nutrients and micropollutants along the sludge treatment line: a case study", Environmental Science and Pollution Research, 20, 6256-6265, 2013;
- G. Mascolo, G. Bagnuolo, B. De Tommaso, V. Uricchio, "Direct analysis of polychlorinated biphenyls in heavily contaminated soils by thermal desorption/gas chromatography/mass spectrometry", International Journal of Environmental Analytical Chemistry 93, 1030-1043, 2013:
- G. Laera, D. Cassano, A. Lopez, A. Pinto, A. Pollice, G. Ricco, <u>G. Mascolo</u>. Removal of Organics and Degradation Products from Industrial Wastewater by a Membrane Bioreactor Integrated with Ozone or UV/H<sub>2</sub>O<sub>2</sub> Treatment. Environmental Science and Technologies, 46, 1010–1018, 2012;
- D. Cassano, A. Zapata, G. Brunetti, G. Del Moro, C. Di Iaconi, I. Oller, S. Malato, G. Mascolo, "Comparison of several combined/integrated biological-AOPs setups for the treatment of municipal landfill leachate: minimization of operating costs and effluent toxicity", Chemical Engineering Journal, 172, 250-257, 2011;
- G. Mascolo, G. Laera, A. Pollice, D. Cassano, C. Salerno, A. Lopez, "Effective organics degradation from pharmaceutical wastewater by an integrated process including membrane bioreactor and ozonation", Chemosphere, 78, 1100–1109, 2010;
- G. Mascolo, L. Balest, D. Cassano, G. Laera, A. Lopez, A. Pollice, C. Salerno, "Biodegradability of pharmaceutical industrial wastewater and formation of recalcitrant organic compounds during aerobic biological treatment", Bioresource Technology, 101, 2585–2591, 2010.

## **ADDITIONAL INFORMATION**

- ✓ Affiliations: International Ozone Association
- ✓ Driving license B

# DECLARATION OF INFORMED CONSENT

The Undersigned hereby authorises the CNR to utilize and store the personal sensitive data contained in the attached Curriculum Vitae for the purposes of bilateral Joint research projects and within the framework of the Data protection Act No. 196, dates 30 June 2003 as promulgated by the Italian Government.

X Yes, I agree

Bari, 27 09 2016 Dr. Giuseppe Mascolo