

<i>Personal Data</i>			
<i>Last Name</i>	<i>First Name</i>	<i>Organization and Position</i>	<i>Personal website</i>
Tirafferri	Alberto	Politecnico di Torino, Associate Professor (ICAR/03 - Applied Environmental Engineering)	www.polito.it/ensurewater
<i>Research topics</i>			
<ul style="list-style-type: none"> - Membrane-based water purification, desalination, wastewater reuse and resource extraction - Advanced oxidation processes for water and wastewater management - Contaminant dynamics in the environment and innovative remediation techniques 			
<i>Education and training</i>			
2013-2015	Post-doctoral Fellow, University of Geneva (Switzerland)		
2012	PhD in Chemical and Environmental Engineering, Yale University (USA)		
2010	M.Sc. and M.Phil. in Chemical and Environmental Engineering, Yale University (USA)		
2007	M.Sc. in Environmental Engineering, Politecnico di Torino (Italy)		
2005	B.Sc. in Environmental Engineering, Università Politecnica delle Marche (Italy)		
2004-2005	Erasmus Programme, Department of Civil and Environmental Engineering, University of Edinburgh (UK)		
<i>Professional experience</i>			
SUPERVISION			
2015→	Currently supervising 4 Ph.D. students, co-supervising 2 Ph.D. students (50-50% co-supervision), supervising 1 post-doctoral fellow, 2 research assistants and 4 masters' students; graduated 1 Ph.D. student (Mattia Giagnorio, 2020) and graduated 24 masters' students as supervisor.		
CURRENT TEACHING ACTIVITIES			
2017→	Instructor: Water Desalination: Processes, Materials, and the Future, Ph.D. level course, Politecnico di Torino (Italy)		
2015→	Instructor: Environmental and Contaminant Dynamics, master level course, Politecnico di Torino (Italy)		
2019→	Co-instructor: Water and Wastewater Treatment, bachelor level course, Politecnico di Torino (Italy)		
2015→	Co-instructor: Advanced Water and Wastewater Treatment, master level course, Politecnico di Torino (Italy)		
FELLOWSHIPS AND AWARDS			
2013-2015	Marie Curie Intra-European Fellowship for career development, IEF, call of 2012, University of Geneva (Switzerland)		
2010-2012	NWRI-AMTA Fellowship for Membrane Technology		
2010	ACS Environmental Chemistry Graduate Student Award		
2010	Co-recipient of the Membrane X-Prize offered by Oasys Water, Inc. for the fabrication of a forward osmosis membrane with high performance: worldwide prize offered to the first researchers able to design and fabricate a composite forward osmosis membranes with higher performance than any other commercial membranes present on the market.		
2009-2012	PhD Fellowship at Yale University (USA) funded by the KAUST-Cornell Center for Energy and Sustainability, Desalination and Advanced Water Purification Thrust		

INSTITUTIONAL RESPONSIBILITIES

- 2019→ Member of the Departmental board (Giunta di Dipartimento) at DIATI
- 2017→ Scientific manager of the Interdepartmental Center “[CleanWaterCenter@PoliTo](#)”, undertaking research and technological transfer in the area of water and wastewater treatment and bringing together four Departments at Politecnico di Torino (Italy)
- 2015→ Principal Investigator of the [en.sur.e water lab](#), Politecnico di Torino (Italy), undertaking research in the area of membrane processes for water treatment and resource recovery, water purification and decontamination with advanced oxidation, reclamation of polluted sites, and contaminant dynamics.
- 2015→ Referent for Research of DIATI Department, Politecnico di Torino (Italy)
- 2015→ Member of the Faculty board of the Ph.D. School in Civil and Environmental Engineering, Politecnico di Torino (Italy)

ORGANIZATION OF SCIENTIFIC MEETINGS, EDITORIAL AND OTHER SERVICES

- 2020→ Member of the *ES&T's Early Career Editorial Advisory Board* (Environmental Science & Technology)
- 2017→ Associate Editor of the journal *Frontiers in Environmental Science*
- 2016→ Member of the International Board of the Conference IAP “Interfaces Against Pollution”
- 2016 Civil Court of Como, Italy, expert advice to Judge Dr. Nicoletta Sommazzi for case 6273/14
- 2013 Head of the scientific committee for the symposium “Membranes for Liquid Separation and Water Treatment: Environmental Applications and Future Perspectives”, October 2013, Torino, Italy

MAJOR INTERNATIONAL COLLABORATIONS

- Institut Européen des Membranes (IEM), CNRS, Montpellier (France): Seawater and brackish water desalination using biomimetic membranes
- Prof. Ahmad Rahimpour (Babol Noshirvani University of Technology, Iran), Prof. Mark Elliott (University of Alabama, USA): Process intensification in water and wastewater treatment
- Prof. Baicang Liu (Sichuan University, China): Membrane fabrication and optimization, reuse and recycling of produced and flowback waters from oil & gas extraction fields
- Prof. Katherine Zodrow (MontanaTech, USA), Development of ultrafiltration membranes and systems for point-of-use applications in remote areas.

PATENTS

- Biomimetic water channel membranes, synthesis methods and uses thereof”, French Application filed, Oct. 2019
- Zodrow, K.R.; Eggenberger, C.; Tiraferri, A.; Giagnorio, M.; Holland, M.; Schiffman, J.: “Living filtration membranes”, USA Application filed, Mar. 2019
- Sethi, R.; Gallo, A.; Bianco, C.; Tosco, T.; Tiraferri, A.: “Method for the synthesis of a zero-valent metal using dithionite catalyzed by pre-reduction of a noble metal”, patent no. 102017000136603, Feb. 2020.
- Sethi, R.; Bianco, C.; Tiraferri, A.; Tosco, T.; Patiño Higuera, J. E.: “Methods for the controlled delayed deposition and/or destabilization of colloids and their distribution in the subsurface”, Italian Application filed, Dec. 2016.
- Giannelis, E.; Wang, Y.; Elimelech, M.; Tiraferri, A.; Mauter, M.: “Nanoparticle-Functionalized Membranes, Methods of Making Same, and Uses of Same”, patent no. WO/2012/166701

Publications

Total publications in international peer-reviewed journals: 69.

H-index ISI-Scopus: 20; Scholar: 23. Citations >4000.

LIST OF PUBLICATIONS AT: <https://areeweb.polito.it/ensurewater/publications/>