

<b>Personal Data</b>			
<i>Surname</i>	<i>Name</i>	<i>Organization and Position</i>	<i>Date of birth</i>
Tiraferri	Alberto	Politecnico di Torino, Associate Professor (ICAR/03 - Sanitary and Environmental Engineering)	30/03/1983
<b>Education and training</b>			
2013-2015	Post-doctoral Fellow, University of Geneva (Switzerland)		
2012	PhD in Chemical and Environmental Engineering, Yale University (USA) Supervisor: Prof. Menachem Elimelech		
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	European Commission, Erasmus Programme, Department of Civil and Environmental Engineering, University of Edinburgh (UK)		
<b>Professional experience</b>			
<b>SUPERVISION</b>			
2015→	Currently supervising 3 Ph.D. students, co-supervising 2 Ph.D. students (50-50% co-supervision), supervising 1 research assistant and 4 masters' students; graduated 22 masters' students as supervisor.		
2013-2015	Supervised 2 masters' students, University of Geneva (Switzerland)		
<b>TEACHING ACTIVITIES</b>			
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)		
2015→	Co-instructor: Advanced Water and Wastewater Treatment, master level course, Politecnico di Torino (Italy)		
2015→	Co-instructor: Reclamation of Polluted Sites, master level course, Politecnico di Torino (Italy)		
2013	Co-instructor: Membrane-Based Water Separation Processes: Theory and Applications for a Sustainable Future, PhD excellence course, Politecnico di Torino (Italy)		
2013-2014	Teaching fellow: Laboratory of analytical chemistry, bachelor level course, University of Geneva (Switzerland)		
2009	Teaching fellow: Water Quality Control, bachelor level course, Yale University (USA)		
2010-2011	Teaching fellow: Environmental Physicochemical Processes, PhD level course, Yale University (USA)		

#### 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

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→ Coordinator of the Commission for Research, Technology Transfer, and Internationalization 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

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

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

**PATENTS**

- Zodrow, K.R.; Eggensperger, C.; Tiraferri, A.; Giagnorio, M.; Holland, M.; Schiffman, J.: “Living filtration membranes”, USA Application filed, Mar. 2019
- Barboiu, M.D.; Di Vincenzo, M.; Tiraferri, A.: “Biomimetic water channel membranes, synthesis methods and uses thereof”, French Application filed, Feb. 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”, Application filed, Nov. 2017.
- Sethi, R.; Bianco, C.; Tiraferri, A.; Tosco, T.; Patiño Higueta, 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

**Scientific Publications and Congress or other Oral Communications**

Total publications in international peer-reviewed journals: 44.

H-index ISI-Scopus: 19, Scholar: 20. Citations >3000.

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

**Grants and Contracts**

<i>Title or Description</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>
Reuse of flowback and produced water from oil & gas extraction fields	Syndial S.p.A. (contract)	98,480	April 2019 - March 2020 (running)
Treatment of contaminated groundwater from two sites of national interest (SIN)	Eni S.p.A. (contract)	282,400	June 2017 - Dec 2019 (running)
<i>FLOWING</i> - Forward Osmosis to Reuse Produced Water in the Oil & Gas Industry	Compagnia di San Paolo (grant)	144,301	Sept 2017 - Sept 2019 (running)
Treatment of phosphogypsum landfill leachate from a site of national interest	Syndial S.p.A. (contract)	41,420	Febr - June 2019 (running)
<i>StepPolyMem</i> - Novel thin-film composite (TFC) membranes prepared by stepwise fabrication of oligoamide film on porous templates	Italian Ministry of Foreign Affairs; Israeli Ministry of Science, Technology, and Space (grant)	192,637 (for PoliTo)	December 2015 - November 2017
Removal of chromium from groundwater for drinking water production	SMAT S.p.A.: Società Metropolitana Acque Torino (contract)	90,000	January 2016 - December 2017