

PERSONAL INFORMATION

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CURRENT POSITION

March 2015→ Associate Professor (Professore Associato L. 240) of Applied Environmental Engineering; Department of Environment, Land, and Infrastructure Engineering (DIATI), Politecnico di Torino (Italy)

EDUCATION AND PREVIOUS POSITION

2013-2015 Marie Curie IEF 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)

2004-2005 European Commission, Erasmus Programme, Department of Civil and Environmental Engineering, University of Edinburgh (UK)

2002-2005 B.Sc. in Environmental Engineering, Università Politecnica delle Marche (Italy)

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2015→ Currently supervising 2 Ph.D. students, 1 post-doctoral fellow, 3 research assistants, and 6 masters' students; graduated 11 masters' students as supervisor.

2013-2015 Supervised 2 masters' students, University of Geneva (Switzerland)

TEACHING ACTIVITIES

2017-2018 Co-instructor: Water Desalination: Processes, Materials, and the Future, Ph.D. level course, Politecnico di Torino (Italy)

2015→ Instructor: Fate and Transport of Contaminants, 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 Post-doctoral Fellow (Intra-European Fellowship for career development, IEF, call of 2012), University of Geneva (Switzerland)
- 2010-2012 NWRI-AMTA Fellowship for Membrane Technology, Yale University (USA)
- 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)
- 2015→ Coordinator of the Commission for Research and Technology Transfer of DIATI Department, Politecnico di Torino (Italy)
- 2015→ Member of the Commission for Internationalization of DIATI Department, of the Faculty board of the Ph.D. School in Civil and Environmental, Politecnico di Torino (Italy)

ORGANIZATION OF SCIENTIFIC MEETINGS AND MEMBERSHIP OF SCIENTIFIC SOCIETIES

- 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
- 2015→ Member of GITISA, Italian Group of Applied Environmental Engineers.
- 2014 Session Chair, session Adsorption to Engineered Surfaces, “Interfaces Against Pollution 2016” (IAP 2016), May 2014, Wetsus, Leeuwarden, The Netherlands
- 2013 Head of the organizing and scientific committee for the symposium “Membranes for Liquid Separation and Water Treatment: Environmental Applications and Future Perspectives”, October 2013, Torino, Italy
- 2010 Chair of the organizing committee for the 2010 Robert M. Langer Graduate Student Symposium, Department of Chemical & Environmental Engineering, Yale University

MAJOR INTERNATIONAL COLLABORATIONS

Dr. Yves-Marie Legrand and Prof. Mihai Barboiu, Fabrication and functionalization of polymeric membranes for water separation, Institut Européen des Membranes (IEM), CNRS, Montpellier (France):

Prof. Andrea Iris Schäfer, Reducing fouling in membrane-based water treatment processes, Karlsruhe Institute of Technology (KIT), Karlsruhe (Germany)

Prof. Saifur Rahaman, Graphene-based membranes for water treatment, Concordia University, Montreal (Canada)

Dr. Ron Kasher and Dr. Roy Bernstein, Novel membranes for wastewater reuse, Ben Gurion University of the Negev (Israel)

PATENTS

- 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”, Italian Application filed, November 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, December 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

INVITED SEMINARS

- Ben Gurion University of the Negev, The Zuckerberg Institute for Water Research (ZIWR), Midreshet-Ben Gurion, Israel, “Surfaces and Adsorbed Layers of Macromolecules: Implications and Applications in Environmental Systems”, November 1, 2016
- Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany, “Macromolecules and Membrane Fouling: Mechanisms of Adsorption and Routes to Fouling Prevention”, July 28, 2016
- Institut Européen des Membranes (IEM), CNRS, Montpellier, France, “Purifying Water Using Membranes: an Engineering Perspective on Current Challenges and Possible Solutions”, June 10, 2016
- Department of Geography and Environmental Engineering, Johns Hopkins University, Baltimore, MD, USA, "Adsorption of Macromolecules on Solid Substrates: Tuning Layer Properties for Environmental Applications", July 2, 2014

REVIEWER FOR JOURNALS and AGENCIES

Reviewer of approximately 80 scientific articles for approximately 20 journals, including *Environmental Science & Technology*, *Journal of Membrane Science*, *Journal of Materials Chemistry*, *ACS Applied Materials & Interfaces*, *Environmental Science: Nano*, *Scientific Reports*. Reviewer for “Nanofiltration: Principles and Applications”, Ed. A.I. Schäfer, A.G. Fane, T.D. Waite, Elsevier Science, ISBN: 9781856174053. Reviewer for the Swiss National Science Foundation (SNSF Professorship) and for the Israeli government through various funding schemes and agencies.

PUBLICATIONS

Please visit: www.polito.it/ensurewater/publications