

CURRICULUM VITAE

PERSONAL INFORMATION

Name, Surname Alberto Figoli

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Sex M

Nationality Italian

Place and Date of birth

ORCID 0000-0002-3347-0506

Researcher ID 9517-2018

WORK EXPERIENCE

01/01/2020 - Present President of Cosenza CNR Research Area, Rende (CS)

01/03/2019 - Present Director

Institute on Membrane Technology (ITM-CNR), Rende (CS)

01/0/2015-01/02/2019 Elected in the Board of the European Membrane Society (EMS), Awards and Price

Responsible and EMS Secretary

01/09/2011- 01/11/2011 "Secondment at GVS, SpA a Bologna, within the EU project "Implementation of

Membrane Technology to Industry (IMETI). Work on "Preparazione e caratterizzazione

di membrane ibride per la rimozione di Composti Organici Volatili (VOCs)".

01/10/2010- 01/12/2010 "Secondment at GVS, SpA a Bologna, within the EU project "Implementation of

Membrane Technology to Industry (IMETI). Work on "Preparazione e caratterizzazione

di membrane iinnovative per la rimozione di Composti Organici Volatili (VOCs)".

14/06/2005 -24/07/2005 Stage at "Environmental Protection Agency of United States (USEPA)" presso

"Sustainable Technology Division, Cincinnati (USA)" on "Volatile Organic Compounds (VOCs) removal using a novel asymmetric membrane by pervaporation" nell'ambito

dello "Short Term Mobility Programme" funded CNR.

01/02/2004–28/02/2004 Stage at "Environmental Protection Agency of United States (USEPA)" at Sustainable

Technology Division, Cincinnati (USA) on "Aroma removal using a novel ceramic-polymeric membrane material by pervaporation" within "Short Term Mobility Programme" funded by

CNR

19/12/2001 – 28/02/2019 Researcher at the Institute on Membrane Technology (CNR-ITM)

01/05/1996-20/12/1996 Working experience at Quest International Nederland B.V. (UNILEVER), Naarden (NL),

Process Research Group: Setting of a pilot plant for aromatic compounds extraction using

the pervaporation membrane technology.

EDUCATION AND TRAINING



20/05/1997-26/10/2001

PhD in Chemical Technologies at Membrane Technology Group, University of Twente, Enschede (NL). Title of the thesis on "Synthesis of nanostructured mixed matrix membranes for facilitated gas separation".

15 March 1996

Degree in Food Science and Technology at the Agriculture University of Milan. Title of thesis "oil extraction from vegetal matrixes through the use of supercritical CO₂".

RESEARCH ACTIVITY

Research sectors / Strategic areas

Membrane preparation (polymeric and hybrid; flat, hollow fiber and capsule, membrane characterization, sustainable materials, water treatment, gas separation, membranes for energy, membrane processes, environmental remediation

H index

42 (Scopus); 48 (GoogleScholar)

More than 220 international scientific peer-reviews papers; more than 30 chapters; 8 co-edited books; more than 10 special issued on international peer-reviews scientific journals

Project Responsibilities (Main Projects)

- Research Project between ITM-CNR and SAES SPA for the research on "Development of innovative products for industrial application-CAPME3". Period December 2021-December 2023. Position in the project: "ITM Scientific Responsible".
- International project, NEWMEM, Development of anti-wetting and anti-fouling membranes for membrane distillation and membrane crystallizer applications: treatment of RO brine and produced water, Funding Board: Ministry of Education, Kingdom of Saudi Arabia, Period: 2020-2023, Position in the project: "ITM Scientific Responsible".
- Bilateral Project Italy-France, University Rennes ITM, Toward sustainable membrane fabrication using biopolymers and non-toxic solvents; Funding Board: Bando GALILEO MIUR, Italy, Period: 2020-2021 (extended to 2022); Position in the project: "ITM Scientific Responsible".
- Research Project between ITM-CNR and SAES SPA for the research on "development of innovative products". Period December 2019-November 2021. Position in the project: "ITM Scientific Responsible-CAPME2".
- Research Project among ITM-CNR, DeltaMEM, Bracco Imaging SPA for the research on "Innovative membrane processes". Period November 2019- March 2021. Position in the project: "ITM Scientific Responsible".
- National Project PON, TARANTO (Tecnologie e processi per l'Abbattimento di inquinanti e la bonifica di siti contaminati con Recupero di mAterie prime e produzioNe di energia TOtally green), Funding Board: PON 2014-2020 Ricerca e Innovazione. Period: 2018 2021, Position in the project: "ITM Scientific Responsible".
- Regional Project POR, AsSE (SEparazione dell'ArSenico dalle acque mediante processi a membrana), Funding Board: POR CALABRIA FESR-FSE2014-2020, Period 2017 2020, Position in the project: "Scientific Project Responsible"
- European Project (Horizon2020) for the research of "Integrated aquaculture based on sustainable water recirculating system for the Victoria Lake Basin". Period: June 2016– June 2019, Position in the project: "ITM Scientific Responsible".
- Research Project Agreement between ITM-CNR and Solvay Specialty Polymer for the research: "Hydrophobic flat membrane preparation for membrane contactors and pervaporation application". Period: November 2012- December 2016. Position in the project: "Scientific Coordinator".
- European Project (FP7) for the research of "Nanotechnology Application in Water Desalination (NAWADES)". Period: September 2012– September 2016, Position in the project: "ITM Scientific Responsible".
- Research project Agreement between ITM-CNR and IPM-filtri for the research: "Membrane preparation for water treatment". Period: May 2012- May 2013. Position in



the project: "Scientific Coordinator".

- European Project (FP7) for the research of "Biotechnology for Africa's sustainable water supply (WATERBIOTECH)". Period: September 2011– September 2013, Position in the project: "ITM Scientific Responsible".
- European Project (FP7) for the research of "Development of the next generation membrane bioreactor system (BIONEXGEN)". Period: September 2010 May 2014, Position in the project: "ITM Scientific Responsible".
- European Project (FP7): Marie Curie People for the research of "Preparation of ionic liquid microcapsule membranes loaded and their application in NMVOCs removal". Period: July 2010 July 2012 Position in the project: "Scientific Coordinator".
- Agreement between ITM-CNR and Dipartimento di Scienze Farmaceutiche dell'Università della Calabria (Prof. Bartolo Gabriele) for research: "Study on synthesis and characterisation of polymerisable surfactants". Period of the project: March 2011 March 2012. Position in the project: "Scientific Coordinator".

Institutional Responsibilities

2019-present

Responsible of the "social network" group of CNR-ITM; Responsible of "NewsLetter and Web" group of CNR-ITM

2015-2019

Elected in the "Consiglio di Istituto" of ITM-CNR; Position: Member and Secretary

2009-2015

Elected in the "Consiglio di Istituto" of ITM-CNR; Position: Member and Secretary

Honours and awards

- Alberto Figoli, 1st price for the Scientific Productivity 2006 in "Food Packaging Research GSICA Awards", given by Prof. Piergiovanni, President of the Italian Scientific Group in Food Packaging, Catania, 22 June 2006.
- Alberto Figoli, Best Article selected among 14000 scientific articles to represent at CNR headquarters the Environmental Section in the Highlights of CNR publications for the years 2010 and 2011 by CNR, July 2011 and 16 July 2012, CNR headquarter, Rome. Selected article: A. Figoli, A. Cassano, A. Criscuoli, S. Mozumder, T. Uddin, A. Islam, E. Drioli, Influence of operating parameters on the arsenic removal by nanofiltration, Water Research 44 (2010) 97-104.
- Alberto Figoli, invited to present at CNR Headquarter in Rome, as representative of the macroarea "Environment", the work selected within the Highlights of CNR for the years 2010/2011: A. Figoli, A. Cassano, A. Criscuoli, M. S. I. Mozumder, M. T. Uddin, M. A. Islam, E. Drioli, Influence of operating parameters on the arsenic removal by nanofiltration, Water Research 44 (2010) 97-104. Presentation at CNR, Sala Marconi, Piazzale Aldo Moro 7, Rome: July 2012.
- Alberto Figoli, invited to present at CNR Headquarter in Rome, as representative of the macroarea "Water Sustainability", the work selected within the Highlights of CNR for the years 2009/2010: A. Figoli, A. Cassano, A. Criscuoli, M. S. I. Mozumder, M. T. Uddin, M. A. Islam, E. Drioli, Influence of operating parameters on the arsenic removal by nanofiltration, Water Research 44 (2010) 97-104. Presentation at CNR, Sala Marconi, Piazzale Aldo Moro 7, Rome: 27 July 2011.

Referee Activity

Referee for several international journals: Water Research, Journal of Membrane Science, Hazardous Material Journal, J Phys Chemistry B, Separation Science and Technology, Desalination, Journal of Chemical Technology and Biotechnology, Separation and Purification, etc.

Project Referee for different organisations: Romanian Government, National Council for Scientific Research, UEFISCDI, Romania; The Innovation and Technology Commission (ITC), Government of the Hong Kong Special Administrative Region; "CE21 Food, food systems" Evaluation committee of the



French National Research Agency - Czech Science Foundation, GACR; Netherlands Organisation for Scientific Research, NWO, Domain TTW; FWO Belgium.

Invited Chairman

Alberto Figoli has been invited as chairman in more than 10 Conferences

Supervising and mentoring activities

Supervisor of more than 50 undergraduate and Master students in Italy and Europe (1998-2022)

Supervisor of more than 10 PhD students in the field of Membrane Technology

Conference proceedings

More than 100 conference proceedings including oral and poster presentations

REPRESENTATIVE PUBLICATIONS

- 1. P. Tomietto, F. Russo, F. Galiano, P. Loulergue, S. Salerno, L. Paugam, J.-L. Audic, L. De Bartolo, A. Figoli, Sustainable fabrication and pervaporation application of bio-based membranes: Combining a polyhydroxyalkanoate (PHA) as biopolymer and CyreneTM as green solvent, J. Memb. Sci 643 (2022) 120061
- 2. F. Russo, M. Tiecco, F. Galiano, R. Mancuso, B. Gabriele, A. Figoli, Launching deep eutectic solvents (DESs) and natural deep eutectic solvents (NADESs), in combination with different harmless co-solvents, for the preparation of more sustainable membranes, Journal of Membrane Science 649 (2022) 120387
- 3. D. Zou, S. Pereira Nunes, I. F. J. Vankelecom, A. Figoli, Y. Moo Lee, Recent advances in polymer membranes employing non-toxic solvents and materials, Green Chemistry, 24 (2021) 9815–9843
- 4. F. Russo, F. Galiano, A. Iulianelli, A. Basile, A. Figoli, Biopolymers for sustainable membranes in CO₂ separation: a review, Fuel Processing Technology, 213 (2021) 106643
- 5. F. Russo, C. Ursino, E. Avruscio, G. Desiderio, A. Perrone, S. Santoro, F. Galiano, A. Figoli, Innovative poly (vinylidene fluoride) (PVDF) electrospun nanofiber membrane preparation using DMSO as a low toxicity solvent, Membranes, 10, 2020, 36
- 6. C. Ursino, F. Russo, R. Ferrari, M.P. De Santo, E. Di Nicolò, T. He, F. Galiano, A. Figoli, Polyethersulfone hollow fiber membranes prepared with Polarclean® as a more sustainable solvent, Journal of Membrane Science, 608, 2020,118216
- 7. F. Russo, F. Galiano, F. Pedace, F. Aricò, A. Figoli, Dimethyl isosorbide as a green solvent for sustainable ultrafiltration and microfiltration membrane preparation, ACS Sustainable Chem., Eng., 8, 2020, 659-668
- 8. T. Marino, F. Galiano, A. Molino, A. Figoli, New frontiers in sustainable membrane preparation: Cyrene[™] as green bioderived solvent, Journal of Membrane Science, 580, 2019, 224–234.
- 9. F. Galiano, K. Briceño, T. Marino, A. Molino, K. Villy Christensen, A. Figoli, Advances in biopolymer based membrane preparation and applications, Journal of Membrane Science, 564, 2018, 562–586
- 10. A. Figoli, T. Marino, S. Simone, E. Di Nicolò, X.-M. Li, T. He, S. Tornaghi and E. Drioli, Towards non-toxic solvents for membrane preparation: a review, Green Chemistry 16 (2014) 4034-4059



REPRESENTATIVE PATENTS

- 1. A. Figoli, J. Hoinkis, B. Gabriele, G. De Luca, F. Galiano, S. A. Deowan, Bicontinuous microemulsion polymerized coating for water treatment, Pubblication date 02/04/2015, International Application number: PCT/EP20 14/070603; WO 2015/044335 A2. Granted on 08.04.2020
- A. Figoli, F. Galiano, G. Barbieri, A. Brunetti, L. Giorno, B. Gabriele, R. Mancuso, C. S. Pomelli, C. Chiappe, Y. Itami, Innovative polymerised ionic liquid membranes for gas separation, Deposit number: 102018000003374, deposited on 08/03/2018, PCT/IT2019/050050, US16979030; 2021/2/25

DATA TREATMENT

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

Date: 19/05/2022

Signature

