

DICHIARAZIONI SOSTITUTIVE DI CERTIFICAZIONI

(art. 46 D.P.R. n. 445/2000)

DICHIARAZIONI SOSTITUTIVE DELL'ATTO DI NOTORIETÀ

(art. 47 D.P.R. n. 445/2000)

La sottoscritta LONGO MARIAGIULIA,

NATO A: _____ PROV. _____

ATTUALMENTE RESIDENTE A: _____ PROV. _____

INDIRIZZO _____ C.A.P. _____

TELEFONO _____

INDIRIZZO PEC: _____

Visto il D.P.R. 28 dicembre 2000, n. 445 concernente "T.U. delle disposizioni legislative e regolamentari in materia di documentazione amministrativa" e successive modifiche ed integrazioni;

Vista la Legge 12 novembre 2011, n. 183 ed in particolare l'art. 15 concernente le nuove disposizioni in materia di certificati e dichiarazioni sostitutive (*);

Consapevole che, ai sensi dell'art.76 del DPR 445/2000, le dichiarazioni mendaci, la falsità negli atti e l'uso di atti falsi sono punite ai sensi del Codice penale e delle leggi speciali vigenti in materia, dichiara sotto la propria responsabilità:

che quanto dichiarato nel seguente curriculum vitae et studiorum comprensivo delle informazioni sulla produzione scientifica corrisponde a verità

() ai sensi dell'art. 15, comma 1 della Legge 12/11/2011, n. 183 le certificazioni rilasciate dalla*

P.A. in ordine a stati, qualità personali e fatti sono valide e utilizzabili solo nei rapporti tra privati; nei rapporti con gli Organi della Pubblica Amministrazione e i gestori di pubblici servizi, i certificati sono sempre sostituiti dalle dichiarazioni sostitutive di certificazione o dall'atto di notorietà di cui agli artt. 46 e 47 del DPR 445/2000

Luogo e data

FIRMA

Curriculum vitae et studiorum

PERSONAL INFORMATION

Name Mariagiulia Longo

Address

Telephone

E-mail

Nationality

Date of Birth

EDUCATION AND HIGH TRAINING

- Type of degree **PHD DEGREE: PHYSICAL, CHEMICAL AND MATERIALS SCIENCES AND TECHNOLOGIES** **EQF LEVEL 8**
Scientific sector disciplinary CHIM/05 Science and technology of polymeric materials
 - Place of performance Institute on Membrane Technology (CNR-ITM), University of Calabria, Rende, Italy
 - Dates 10 February 2022
 - Title of thesis *STUDY OF PHYSICAL, MECHANICAL AND TRANSPORT PROPERTIES OF POLIMERIC MEMBRANES FOR GAS SEPARATION*
 - Supervisors Dr. J.C. Jansen, Dr. L. Giorno
- Abstract thesis The main purpose of my PhD work was study different polymeric membranes type for gas separation processes in order to understand their advantages and applicability as well as their limits through a detailed analysis of their structure-properties relationships. The main idea was to realise membranes by combining good transport and separation properties with a good mechanical stability. The work was subdivided in different topics. The first goal is to validate AFM force spectroscopy as a possible alternative to tensile tests for the analysis of Young's modulus, even in the case of complex systems such as the blends of an ionic liquid and a multi-block copolymer. The second aim is the investigation of the correlation between the gas transport and structural properties of a series of novel PIMs. This study focuses on how the transport properties depend on the polymer structure and sample history and can be tailored in view of their potential applications. This comprises the blending of a PIM with a commercial glassy polymer in order to reduce costs or obtain properties that are not found in the individual polymers, and aims to study the influence of the blend composition on the membranes transport parameters. The goal of the last part of the thesis is the development of a machine-based learning approach for the prediction of missing gas transport data based on an incomplete set of measurements on existing membranes. This approach is useful with newly designed materials to reduce the investigation time and the cost to determine the transport parameters of a large set of gases.
- Vote Excellent

SPECIAL MENTION

Doctor Europæus certification comply with the conditions of the Confederation of Conferences of the University Rectors of the EU countries, set also by the European University Association (EUA). Released by University of Calabria 13/09/2023 N°65.

Additional information: <https://orcid.org/0000-0002-9407-9148>

LinkedIn: <https://www.linkedin.com/in/mariagiulia-longo-43a182147/>

<https://www.scopus.com/authid/detail.uri?origin=resultslist&authorId=57201799761>

• Type of degree	TRAINING MOBILITY PERIOD	
• Place of performance	University of Edinburgh (UK) – School of Chemistry	
• Date of execution	1 September 2019- 31 March 2020	
• Type of research	The research was subdivided in two main topics. In the first part the main objective was the development of polymer blends for CO ₂ separation. The second half of this period was dedicate to computational studies for the prediction of the membranes performance in order to direct the synthesis for new polymers.	
• Type of degree	M.SC.IN SCIENCE AND ENGINEERING OF MATERIALS	EQF LEVEL 7
• Place of performance	University of Calabria	
• Date of achievement	25 July 2017	
• Principal subjects	Soft condensed matter; Composite, hybrid and nanostructured materials; Inorganic materials; Mechanics of Newtonian and non-Newtonian fluids; Rheology; Transport properties; Physical chemistry; Physics of surfaces; Optical and electronic spectroscopy; Microscopy techniques; Membrane engineering	
• Title of thesis	<i>PREPARATION AND CHARACTERIZATION OF POLYMERIC MEMBRANES ADDICTED WITH IONIC LIQUIDS FOR GAS SEPARATION.</i>	
• Supervisors	Dr. J.C. Jansen, Prof. M.P. De Santo	
• Vote	110/110 cum laude	
• Type of degree	B.SC. IN SCIENCE OF INNOVATIVE MATERIALS	EQF LEVEL 6
• Place of performance	University of Calabria	
• Date of achievement	22 May 2014	
• Principal subject	Inorganic chemistry, Organic chemistry, Physics (electromagnetism, thermodynamics, mechanics, optics, molecular photonics, quantum mechanics)	
• Title of thesis	<i>STUDY OF BIOLOGICAL MEMBRANES WITH ATOMIC FORCE MICROSCOPY</i>	
• Supervisors	Dr. M.P. De Santo, Dr. V. Formoso	
• Type of degree	HIGH SCHOOL DIPLOMA (SCIENTIFIC STUDIES)	EQF LEVEL 5
• Place of performance	Liceo Scientifico G.B. Scorza	
• Date of achievement	July 2010	

WORK EXPERIENCE

• Type of employment	LABORATORY TECHNICIAN
• Place of performance	Calabra Maceri e Servizi SpA
• Dates	From 9 th May 2023 to 9 th November 2023
• Topics	<ul style="list-style-type: none"> • Redevelopment of the waste ammonium-sulphate solution produced in the industrial scrubber from the off gas of the composting unit by membrane operations. • Water treatments with processes of reverse osmosis and membrane distillation • Concentration of saline solutions by multi-step processes • Development of a lab scale implant

Additional information: <https://orcid.org/0000-0002-9407-9148>

LinkedIn: <https://www.linkedin.com/in/mariagiulia-longo-43a182147/>

<https://www.scopus.com/authid/detail.uri?origin=resultslist&authorId=57201799761>

- Other information This work was part of the project *Wet Waste to green fuel (WWGF)* aims to set up an integrated process for energy valorisation of wet organic matrices

• Type of employment	POST-DOCTORAL POSITION
• Place of performance	Institute on Membrane Technology (CNR-ITM), Rende, Italy
• Dates	From 1 st April 2022 to 31 st March 2023
• Topics	<ul style="list-style-type: none"> • Development and characterization of novel mixed matrix membranes containing metal organic frameworks for high-performance heavy metal capture devices. • Capture of heavy metals ions from polluted water. • Development and characterization of novel mixed matrix membranes containing organic cages for highly selective gas separation membranes. • Pure and mixed gases permeation tests of new developed thin film composite and dense membranes and further characterizations with different techniques: X-ray, DSC, SEM, EDX, tensile test.
• Other information	<p>This work is subject for a publication on Chemistry–A European Journal (https://doi.org/10.1002/chem.202301437).</p> <p>Decree No. 182/2022 Fellowship assigned – Call N. ITM.ASS.006.2022.CS Metal Organic frameworks and organic CAgEs for highly selective gas separation membranes and heavy metal capture devices”- MOCA Project Website: https://www.mocaproject.com</p>

• Type of employment	POST-DOCTORAL POSITION
• Place of performance	Institute on Membrane Technology (CNR-ITM), Rende, Italy
• Dates	From 1 st April 2021 to 31 st March 2022
• Topics	<ul style="list-style-type: none"> • Development and design of new hybrid polymer membranes known as proton exchange membranes (PEMs) applicable into water electrolyzers process for the production of hydrogen. The gas transport properties of different PEMs were studied in order to determine the permeability, diffusion and solubility coefficients as well as the barrier properties of the materials. Moreover, the PEMs performances in water electrolysis process were studied in order to evaluate the H₂ and O₂ production rates, electrical power, energy efficiency, Faradaic efficiency and polarization curves at different temperature and operative pressures. These membranes allow to reduce the costs of electrolyzers and to tap the potential of hydrogen as a climate-neutral energy source in an environmentally friendly way. • Development of a device with design, for the use in a reversible ways as an electrolyser (i.e. electrolysis of water with the formation of hydrogen and oxygen) and as a fuel cell (i.e. conversion of hydrogen and oxygen into water and electricity).
• Other information	<p>Different prototypes of miniaturized electrolytic membrane cells were developed and the results obtained for the first prototype were published on the scientific journal “Membranes” (doi:10.3390/membranes12010015) and presented as poster contributions at the international conference EUROMEMBRANE 2022 and the ITM-DAYS conference (DOI: 10.48263/ITM_SEMINAR_DAY_2021). Another device is the subject of a patent: “Electrochemical device capable of functioning as an electrolyser and fuel cell” (102022000011999) (https://publications.cnr.it/doc/480091).</p> <p>Decree No. 152/2021 Fellowship assigned – Call N. ITM.ASS.005.2021.CS “AdvMEM” project – “Development of new hybrid polymer membranes” concluded with MIPRONS - DCM.AD006.322</p>

TEACHING AND DIDACTIC WORKS

- **Co-supervision of Physics bachelor's thesis**

Title: "Analysis of the elastic properties of polymeric membranes on micro and nanoscale",

Student: Valeria Lionetti

Institution: University of Calabria, Rende (CS) – Department of Physics

Data: December 2018

- **Physics tutor**

Course of Mechanics - Management Engineering

Institution: University of Calabria, Rende (CS) – Department of Mechanical, Energy and Management Engineering-

Data: 2018-2019

- **Chemistry tutor**

Course of Chemistry - Mechanical Engineering

Institution: University of Calabria, Rende (CS) – Department of Mechanical, Energy and Management Engineering-

Data: 2018-2019

- **Physics tutor**

Course of Mechanics and thermodynamics - IT Engineering

Institution: University of Calabria, Rende (CS) – Department of Computer Engineering, Modeling, Electronics and Systems

Data: 2021

PARTICIPATION TO SCIENTIFIC PROJECTS

BILATERAL PROJECT CNR-RS (UK)

DEVELOPMENT OF BIO-BASED POLYMERIC MEMBRANES FOR GAS SEPARATION

- Project coordinator: Dr. Alessio Fuoco (ITM)
Dr. K. Konstantina (RS)
 - Financing institution: Institute on Membrane Technology (CNR-ITM), Rende, Italy
Department of chemical & Environmental Engineering, University of Nottingham, UK
 - Topics
 - This project aims to address the reduction of greenhouse gas emissions through the development of novel green membranes for CO₂ sequestration by exploiting sustainably produced biodegradable polymers.
 - Dates: 2023-2024
-

BILATERAL PROJECT CNR-RSE

DEVELOPMENT OF THIN FILM COMPOSITE MEMBRANES FOR THE SEPARATION OF GREENHOUSE GASES AGAINST CLIMATE CHANGE

- Project coordinator: Dr. Elisa Esposito (ITM)
Dr. M.C. Ferrari (RSE)
 - Financing institution: Institute on Membrane Technology (CNR-ITM), Rende, Italy
Institute for Materials and Processes School of Engineering College of Science and Engineering University of Edinburgh
 - Topics
 - Develop of innovative highly permeable thin film composite membranes for the greenhouse gases separation such as CO₂ and CH₄ for the mitigation of climate change.

The results of this project were included in a publication on "Membranes" (doi.org/10.3390/membranes12090881) and presented at the international conference EUROMEMBRANE 2022 ([Euromembrane_2022_Book_of_abstracts.pdf](#)) and as a poster at the ITM-DAYS conference (DOI: 10.48263/ITM_SEMINAR_DAY_2021).
 - Dates: 2021-2022
-

Additional information: <https://orcid.org/0000-0002-9407-9148>

LinkedIn: <https://www.linkedin.com/in/mariagiulia-longo-43a182147/>

<https://www.scopus.com/authid/detail.uri?origin=resultslist&authorId=57201799761>

MOCA PROJECT

METAL ORGANIC FRAMEWORKS AND ORGANIC CAGES FOR HIGHLY SELECTIVE GAS SEPARATION MEMBRANES AND HEAVY METAL CAPTURE DEVICES

- Project coordinator: Dr. J. C. Jansen
- Role: Post-doctoral
- Financing institution: Institute on Membrane Technology (CNR-ITM), Rende, Italy
- Topics: The project aim was the development and characterization of novel mixed matrix membranes containing metal organic frameworks (MOFs) and organic cages for highly selective gas separation membranes and heavy metal capture devices. Test on the capture of heavy metals ions from polluted water were performed with MMMs added with MOFs. Pure and mixed gases permeation tests of new developed thin film composite and dense membranes and further characterizations with different techniques were carried out on MMMs with organic cages.
- The results of this project are subject for a publication on Chemistry–A European Journal (<https://doi.org/10.1002/chem.202301437>).
- Dates: 2020-2023
- Others: Circular Economy 2019 – grant n° 2019-2090
Website: <https://www.mocaproject.com>

ADVANCED MEMBRANES (ADVMEM) PROJECT

- Project coordinator: Dr. J. C. Jansen- Dr. E. Fontananova
- Role: Post-doctoral
- Financing institution: Institute on Membrane Technology (CNR-ITM), Rende, Italy
Miprons SRL
- Topics: The aim of this project was focused on the development and design of new hybrid polymer membranes known as proton exchange membranes (PEMs) applicable into water electrolyzers process for the production of hydrogen. The gas transport properties of different PEMs were studied in order to determine the permeability, diffusion and solubility coefficients as well as the barrier properties of the materials. Moreover, the PEMs performances in water electrolysis process were studied in order to evaluate the H₂ and O₂ production rates, electrical power, energy efficiency, Faradaic efficiency and polarization curves at different temperature and operative pressures.
- Dates: 2021-2022

HIGH PRESSURE ELECTROLYSIS (HPE) PROJECT

- Principal investigator: Dr. J. C. Jansen- Dr. E. Fontananova - Dr. A. Figoli- Dr. E. Esposito
- Role: Post-doctoral
- Financing institution: Institute on Membrane Technology (CNR-ITM), Rende, Italy
Miprons SRL
- Topics: The aim of this project was the development of a device with design, for the use in a reversible ways as an electrolyser (i.e. electrolysis of water with the formation of hydrogen and oxygen) and as a fuel cell (i.e. conversion of hydrogen and oxygen into water and electricity). Results: Different prototypes of miniaturized electrolytic membrane cells were developed and the results obtained for the first prototype were published in the scientific journal “Membranes” (doi:10.3390/membranes12010015) and presented as poster contributions at the international conference EUROMEMBRANE 2022 (Euromembrane_2022_Book_of_abstracts.pdf) and the ITM-DAYS conference (DOI: 10.48263/ITM_SEMINAR_DAY_2021).
- Dates: 2021-2022

PUBLIC ENGAGEMENT

2018	SuperScienceMe – REsearch in your REACH – H2020-MSCA-NIGHT-2018, European Researchers' NIGHT" – University of Calabria
2019	"Scientific degree project – Materials Science" - scientific dissemination of scientific culture among high school students - University of Calabria-2019
2021	SuperScienceMe – REsearch is your RE-Generation". H2020-MSCA-NIGHT-2020, MARIE Sklodowska-CURIE ACTIONS -European Researchers' NIGHT" call (Project Grant agreement no: 101036170)
2022	SuperScienceMe: REsearch is your R-Evolution". H2020-MSCA-NIGHT-2020, MARIE Sklodowska-CURIE ACTIONS - European Researchers' NIGHT" call. (Project Grant agreement no: 955435)

SCIENTIFIC PRODUCTION *

DOCUMENTS BY AUTHOR

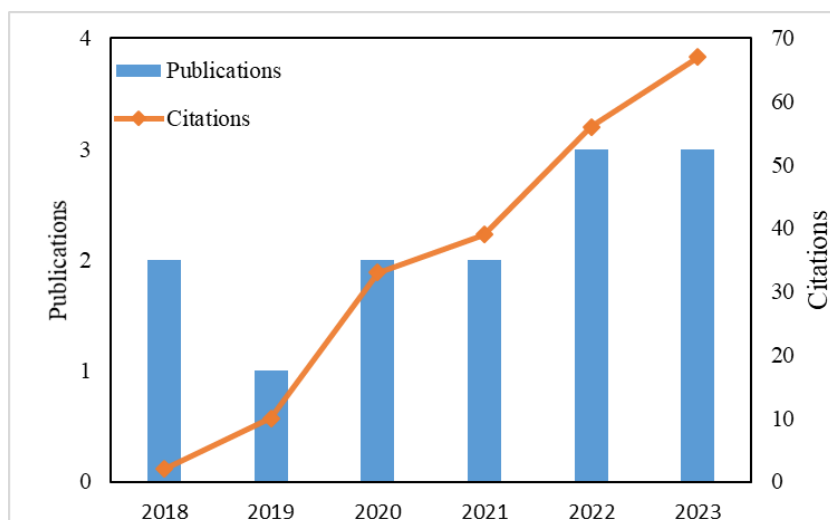
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CITATIONS

207

H-INDEX

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*SOURCE: GOOGLE SCHOLAR/SCOPUS

ARTICLES AND SCIENTIFIC PUBLICATIONS

	IF ^{2EARS}	CIT.*
1. M. Longo , M.P. De Santo, E. Esposito, A. Fuoco, M. Monteleone, L. Giorno, J. C. Jansen, Force spectroscopy determination of young's modulus in mixed matrix membranes, Polymer (Guildf). 2018, 156, 22–29. DOI: 10.1016/j.polymer.2018.09.043	4.432	15
2. M. Longo , M. P. De Santo, E. Esposito, A. Fuoco, M. Monteleone, L. Giorno, B. Comesaña-Gándara, J. Chen, G. Bezzu, M. Carta, I. Rose, N. McKeown, J. C. Jansen; Correlating gas permeability and rigidity during the physical aging of polymers of intrinsic microporosity using atomic force microscopy, Industrial & Engineering Chemistry Research, 2019. DOI:10.1021/acs.iecr.9b04881	4.326	23
3. M. Longo , B. Comesaña-Gándara, M. Monteleone, E. Esposito, A. Fuoco, L. Giorno, N.B. Mckeown, J. Carolus Jansen, Matrimid® 5218/AO-PIM-1 Blend Membranes for Gas Separation Article info, J. Membr.	0.282	3

Additional information: <https://orcid.org/0000-0002-9407-9148>

LinkedIn: <https://www.linkedin.com/in/mariagiulia-longo-43a182147/>

<https://www.scopus.com/authid/detail.uri?origin=resultslist&authorId=572017997>

4. M. Longo , M. Monteleone, E. Esposito, A. Fuoco, E. Tocci, M.-C.Ferrari, B. Comesaña-Gándara, R. Malpass-Evans, N. B.McKeown, J. C. Jansen (2022). Thin Film Composite Membranes Based on the Polymer of Intrinsic Microporosity PIM-EA(Me2)-TB Blended with Matrimid®5218. <i>Membranes</i> , 12(9), 881. https://doi.org/10.3390/membranes12090881	4.562	4
5. A. Fuoco, B. Comesaña-Gándara, M. Longo , E. Esposito, M. Monteleone, I. Rose, C. G. Bezzu, M. Carta, N.B. McKeown, J.C. Jansen. Temperature dependence of gas permeation and diffusion in triptycene-based ultrapermeable polymers of intrinsic microporosity <i>ACS Applied Materials & Interfaces</i> 2018, 10 (42),36475-36482. DOI: 10.1021/acsami.8b13634	10.383	48
6. A. Iulianelli, J.C. Jansen, E. Esposito, M. Longo , F. Dalena, A. Basile, Hydrogen permeation and separation characteristics of a thin Pd-Au/Al2O3 membrane: The effect of the intermediate layer absence, <i>Catalysis Today</i> , 2019, 330, 32-38. DOI: 10.1016/j.cattod.2018.04.029	6.562	21
7. A. Fuoco, B. Satilmis, T. Uyar, M. Monteleone, E. Esposito, C. Muzzi, E. Tocci, M. Longo , M. P. De Santo, M. Lanč, K. Friess, O. Vopicka, P. Izak, J. C. Jansen; Comparison of pure and mixed gas permeation of the highly fluorinated polymer of intrinsic microporosity PIM-2 under dry and humid conditions: experiment and modelling, <i>Journal of Membrane Science</i> , 2020, 594, 117460. DOI:10.1016/j.memsci.2019.117460	10.530	29
8. Q. Yuan, M. Longo , A.W. Thornton, N.B. McKeown, B. Comesaña-Gándara, J.C. Jansen, K.E. Jelfs, Imputation of missing gas permeability data for polymer membranes using machine learning, <i>J. Memb. Sci.</i> 627 (2021) 119207. doi:10.1016/j.memsci.2021.119207. (Preprint from ChemRxiv, 22 Oct 2020. DOI: 10.26434/chemrxiv.13124993.v1)	10.530	28
9. C.G. Bezzu, A. Fuoco, E. Esposito, M. Monteleone, M. Longo , J.C. Jansen, G.S. Nichol, N.B. McKeown, Ultrapermeable Polymers of Intrinsic Microporosity Containing Spirocyclic Units with Fused Triptycenes, <i>Adv. Funct. Mater.</i> 31 (2021) 2104474. https://doi.org/10.1002/adfm.202104474	19.924	23
10. E. Esposito, A. Minotti, E. Fontananova, M. Longo , J.C. Jansen, A. Figoli, Green H2 Production by Water Electrolysis Using Cation Exchange Membrane: Insights on Activation and Ohmic Polarization Phenomena, <i>Membranes (Basel)</i> . 12 (2021) 15. https://doi.org/10.3390/membranes12010015	4.562	7
11. J. Chen, M. Longo , A. Fuoco, E. Esposito, M. Monteleone, B. C. Gándara, J. C. Jansen, N. B McKeown, Dibenzomethanopentacene-Based Polymers of Intrinsic Microporosity for Use in Gas-Separation Membranes, <i>Angewandte Chemie International Edition</i> (2023). https://doi.org/10.1002/anie.202215250	16.6	6
12. R. Mobili, S. La Cognata, M. Marcello, M. Longo , A. Fuoco, S. A. Serapian, B. Vigani, C. Milanese, D. Armentano, J. C. Jansen, V. Amendola (2023). Gas permeation through mechanically resistant self-standing membranes of a neat amorphous organic cage. <i>Chemistry – A European Journal</i> . https://doi.org/10.1002/chem.202301437	5.02	0
13. M. Carta, A. R.Antonangelo, J. C.Jansen, M. Longo ; The Difference in Performance and Compatibility between Crystalline and Amorphous Fillers in Mixed Matrix Membranes for Gas Separation (MMMs). <i>Polymers</i> , 15(13), 2951, (2023).. https://doi.org/10.3390/polym15132951	4.967	0

*SOURCE: GOOGLE SCHOLAR/SCOPUS

BOOK CHAPTER

- 1) Esposito E.; M. Monteleone; A. Fuoco; **M. Longo**; J. C. Jansen, Hollow Fiber Hollow Fiber Membranes for Gas Separation. In Hollow Fibers and Nanofibers in Membrane Science (pp. 309–374). Jenny Stanford Publishing. <https://doi.org/10.1201/9781003256632-9>
-

PATENT

- 1) Figoli A., J. C. John, Fontananova E., Esposito E., Jerace R., **Longo M.**, Minotti A.; Dispositivo elettrochimico atto a funzionare da elettrolizzatore e da cella a combustibile, Patent of industrial invention, Italy (2022), N°102022000011999 (<https://publications.cnr.it/doc/480091>); ITM-CNR, 87036 Rende (CS); Miprons srl, 00037 Segni (RM)
-

CONFERENCES - ORAL PRESENTATIONS

First Author

- 2) **M. Longo**, M. P. De Santo, E. Esposito, A. Fuoco, M. Monteleone, L. Giorno, J. C. Jansen, Analysis of the mechanical properties of polymeric membranes by afm and tensile tests Macrogiovani 2018 – Associazione Italiana Macromolecole – Salerno 14-15/06/2018
 - 3) **M. Longo**, M.P. De Santo, E. Esposito, A. Fuoco, M. Monteleone, L. Giorno, J.C. Jansen, Force spectroscopy determination of Young's modulus in mixed matrix membranes and PIMs, ITM Seminar days, Rende 19-20 December 2018
 - 4) **M. Longo**, Membrane Technology for gas separation, Meeting of Former UNICAL Students, Rende 19 December 2019
 - 5) **M. Longo**, M. P. De Santo, E. Esposito, A. Fuoco, M. Monteleone, L. Giorno, B. Comesaña-Gandara, J. Chen, C. G. Bezzu, M. Carta, N.B. McKeown, J. C. Jansen, Correlating Gas Permeability and Young's Modulus during the Physical Aging of PIMs, webinar ICOM2020, 07-12 December 2020, London
 - 6) **M. Longo**, M.P. De Santo, M. Monteleone, E. Esposito, A. Fuoco, L. Giorno, j. Chen, C.G. Bezzu, N.B. McKeown, J. C. Jansen, Mechanical stiffness of PIMs compolymer with the archetypal PIM-1, ITM seminardays, Rende 17 December 2020
 - 7) **M. Longo**, E. Esposito, A. Fuoco, M. Monteleone, L. Giorno, J. C. Jansen, Matrimid®5218/AO-PIM-1 Blend Membranes for Gas Separation, ITM seminar day, Rende 20 December 2021
 - 8) **M. Longo**, M. Monteleone, E. Esposito, A. Fuoco, S. La Cognata, R. Mobili, C. Milanese, M. Gaboardi, D. Armentano, A. R. Antonangelo, M. Carta, V. Amendola, J. C. Jansen, CO2 separation by imide/imine organic cages as fillers in mixed matrix membranes, Euromembrane 2022, 20-24th November, Sorrento (Napoli, Italy)
 - 9) **M. Longo**, M. Monteleone, E. Esposito, A. Fuoco, S. La Cognata, R. Mobili, C. Milanese, M. Gaboardi, D. Armentano, A. R. Antonangelo, M. Carta, V. Amendola, J. C. Jansen; CO2 separation by organic cages as fillers in MMMs; ITM seminardays 2022; Rende 8th February 2023
-

Co-author

- 1) A. Fuoco, B. Comesaña-Gándara, **M. Longo**, E. Esposito, M. Monteleone, I. Rose, C. G. Bezzu, M. Carta, N.B. McKeown, J.C. Jansen Gas transport analysis in the ultrapermeable polymer of intrinsic microporosity, PIM-TMN-Trip. Euromembrane 2018 Valencia, Spain, 9-13 July 2018
 - 2) J. C. Jansen, E. Esposito, A. Fuoco, **M. Longo**, M. Monteleone, Recent developments in the preparation and characterization of advanced polymeric membranes for gas and vapour separation, Department Conference DCSTM 2019, 28-30 October 2019, Bressanone, Italy
-

- 3) J. C. Jansen, M. Monteleone, A. Fuoco, E. Esposito, **M. Longo**, A novel method for time lag measurements with gas mixtures: deeper insight into mixed gas transport phenomena, December 2020, webinar ICOM-2020, London
- 4) A. Fuoco, B. Comesaña-Gándara, C. G. Bezzu, M. Carta, I. Rose, E. Esposito, M. Monteleone, **M. Longo**, E. Tocci, N. B. McKeown J. C. Jansen, On the size-selectivity in Polymers of Intrinsic Microporosity, December 2020, webinar ICOM-2020, London
- 5) A. Fuoco, B. Comesaña-Gándara, C.G. Bezzu, M. Carta, E. Esposito, M. Monteleone, I **M. Longo**, N.B. McKeown, J.C. Jansen, Novel Polymers of Intrinsic Microporosity, ITM Seminar day, Rende 17 December 2020
- 6) M. Monteleone, A. Fuoco, B. Satilmis, T. Uyar, E. Esposito, C. Muzzi, E. Tocci, **M. Longo**, M.P. De Santo, M. Lanc, O. Vopicka. P. Izak, J.C. Jansen, Effect of humidity on the mixed gas permeation of the highly fluorinated PIM-2, ITM Seminar day, Rende 17 December 2020
- 7) E. Esposito, M. C. Ferrari, E. Lasseguette, A. Fuoco, **M. Longo**, M. Monteleone, N. B. McKeown, J. C. Jansen, Thin film composite membranes based on Matrimid®/PIM-EA-(H²)-TB blend for gas separation, ITM seminar day, Rende 20 December 2021
- 8) M. Monteleone, A. Fuoco, E. Esposito, **M. Longo**, J. C. Jansen, A. Figoli, Advanced methods for the analysis of mixed gas diffusion and permeation in polymeric membranes, ITM seminar day, Rende 20 December 2021
- 9) E. Esposito, A. Minotti, E. Fontananuova, **M. Longo**, J. C. Jansen, A. Figoli, H₂ Production by water electrolysis proton exchange membrane technology for propulsion of Space shuttle, ICOM2023, Chiba, Tokyo, July, 2023

POSTER

Author

- 1) **M. Longo**, E. Esposito, E. Fontananova, J. C. Jansen, A. Minotti, A. Figoli, H₂ production by water electrolysis using cation exchange membrane: insights on build a PEM electrolytic cell, EuroMembrane 2022, Sorrento, Italy.
- 2) **M. Longo**, R. Mobili, M. Monteleone, A. Fuoco, E. Esposito, S. La Cognata, V. Amendola, J. C. Jansen; Preparation and characterization of thin film composite and mixed matrix membrane containing cages for CO₂ separation, Workshop MOCA, 7-9 Giugno 2023, Pavia, Italy.

Co-author

- 1) E. Esposito, M. Carta, C. Sicard, A. Fuoco, **M. Longo**, C. Serre, N.B. McKeown, J.C. Jansen Reduction of PIMs physical aging by the presence of MOFs Euromembrane 2018 Valencia, Spain, 9-13 July 2018
- 2) A. Fuoco, E. Esposito, M. Monteleone, **M. Longo**, E. Tocci, J. C. Jansen, Ultrapervious Polymers of Intrinsic Microporosity that redefine the state-of-the-art for CO₂ capture, Department Conference DCSTM 2019, 28-30 October 2019, Bressanone, Italy
- 3) Monteleone M., Jansen J. C., **Longo M.**, Esposito E., Fuoco A., Mastropietro T. F., Armentano D., Percoco R. M., Pardo E., MOFs-Based Mixed Matrix Membranes for Efficient Removal of Heavy Metals from Water *EuroMembrane 2022. 20-24 November 2022 Sorrento (Naples, Italy)*
- 4) Monteleone M., Fuoco A., Esposito E., **Longo M.**, Jansen J. C. Continuous online mass-spectrometric analysis of mixed gas permeation: a tool to study transient phenomena and real-time changes in polymeric and mixed matrix membranes. *EuroMembrane 2022. 20-24 November 2022 Sorrento (Naples, Italy)*
- 5) E. Esposito, A. Minotti, E. Fontananova, **M. Longo**, J. C. Jansen, A. Figoli, Green h₂ production by water electrolysis using cation exchange membrane: insights on activation and ohmic polarization phenomena, ITM seminar day, Rende 20 December 2021
- 6) E. Esposito, M. C. Ferrari, E. Lasseguette, A. Fuoco, **M. Longo**, M. Monteleone, E. Tocci, N. B. McKeown, J.C. Jansen, Thin film composite membranes based on PIM/Matrimid® blends for gas separation, EuroMembrane 2022, Sorrento, Italy

AWARDS AND SCIENTIFIC RECOGNITIONS

1. European membranes society (EMS) Travel awards - 36th EMS SummerSchool – Membranes for a sustainable future.
2. European membranes society (EMS) Travel awards - International Congress on Membranes & Membrane Processes (ICOM) 2020

PERSONAL SKILLS AND COMPETENCES

MOTHER TONGUE Italian

OTHER LANGUAGE	UNDERSTANDING		SPEAKING		WRITING
	LISTENING	READING	SPOKEN INTERACTION	SPOKEN PRODUCTION	
English	B2	B2	B2	B2	B2

EVALUATION: BRITISH COUNCIL

COMPUTER SKILLS AND COMPETENCES

- 1) ECDL (European Computer Driving License N° IT745878)
- 2) PCAP: programming essentials in Python - Python Cisco Networking Academy®
- 3) Programming languages: C, C++, Python
- 4) Platforms: Linux, Windows
- 5) Tools: Office, OriginPro, Nanoscope Analysis Software, WSxM image analysis software, Chemdraw.

LABORATORY SKILLS AND COMPETENCES

Good knowledge of:

- Mechanics and thermodynamics;
- Organic and inorganic chemistry and analysis tools;
- Polymeric membranes preparation methods;
- Gas separation and transport mechanisms;
- Electrolytic processes;

Excellent knowledge of set-up for the characterization of materials:

- 1) Atomic Force Microscopy (AFM) (Multimode 8 AFM system with a Nanoscope V controller (Bruker)) and different utilization method:
 - a. Tapping, contact and no-contact mode
 - b. Force spectroscopy mode
- 2) Time lag instrument - constant volume/pressure increase method, (Helmholz Zentrum Geesthacht, and constructed by EESR (Geesthacht, Germany);
- 3) Electronic scanning microscope (SEM) imaging and elementary analysis (Phenom Pro X desktop SEM, Phenom-World and FEI Quanta 200 ESEM);
- 4) IR spectrophotometer (PerkinElmer);
- 5) Instrument for the characterization of mechanical properties: Zwick/Roell single column Universal Testing Machine;
- 6) Confocal microscopy;
- 7) NMR spectroscopy.

Additional information: <https://orcid.org/0000-0002-9407-9148>

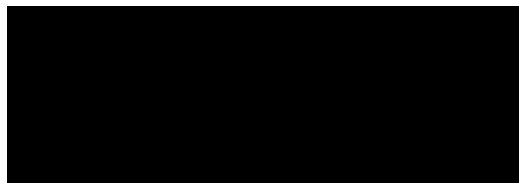
LinkedIn: <https://www.linkedin.com/in/mariagiulia-longo-43a182147/>

<https://www.scopus.com/authid/detail.uri?origin=resultslist&authorId=57201799761>

OTHER SKILLS AND COMPETENCES

- 1) Excellent communication skills (experience in a voluntary association)
- 2) Good organizational skills (organization of events for charity)
- 3) Good problem-solving skills

Consapevole che, ai sensi dell'art.76 del DPR 445/2000, le dichiarazioni mendaci, la falsità negli atti e l'uso di atti falsi sono punite ai sensi del Codice penale e delle leggi speciali vigenti in materia, dichiara sotto la propria responsabilità che quanto dichiarato nel seguente curriculum vitae et studiorum comprensivo delle informazioni sulla produzione scientifica corrisponde a verità.



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LinkedIn: <https://www.linkedin.com/in/mariagiulia-longo-43a182147/>

<https://www.scopus.com/authid/detail.uri?origin=resultslist&authorId=5720179976>

Cognome	LONGO
Nome	MARIAGIULIA
nato il	16-12-1991
(atto n. 31 P. 2 S. A)	
a.	COSENZA (CS)
Cittadinanza	ITALIANA
Residenza	CASALI DEL MANCO (CS)
Via	SANDRO PERTINI DI TRENTA N. 6
Stato civile	
Professione	
CONNOTATI E CONTRASSEGNI SALIENTI	
Statura	1,66
Capelli	CASTANI
Occhi	VERDI
Segni particolari	



Firma del titolare *Mariagiulia Longo*
CASALI DEL MANCO H. 04-05-2018

Impronta del
indice sinistro

IL SINDACO
ORDINE DEL SINDACO
IL 1° APPLICATO SS. DO
(Michele Spadaro)

<p>Scadenza 16-12-2028</p>  <p>AY 9925012</p> <p>Totale diritti Euro 5,42</p> <p><small>I.P.Z.S. spa - O.C.V. - ROMA</small></p>	<p>REPUBBLICA ITALIANA</p>  <p>COMUNE DI CASALI DEL MANCO (CS)</p> <p>CARTA D'IDENTITA'</p> <p>N° AY 9925012</p> <p>DI LONGO MARIAGIULIA</p>
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