

Curriculum vitae

Prof. Enrico DRIOLI

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Curriculum Studiorum

Bachelor studies and Master Doctor Studies (Doctor in Chemistry), at the University of Naples (1960-1965)

Academic Career

Guest Professor of School of Marine Science and Technology of Harbin Institute of Technology, Weihai, P.R.China (01 January 2018 – 31 December 2020)

Distinguished Visiting Professor, Faculty of Engineering & Information Technology, University of Technology Sydney, Australia (January 2016)

Visiting Professor at Nanjing Tech University. Membrane Center (November 2014 – 2016- 2017)

Distinguished Adjunct Professor, Center of Excellence in Desalination Technology, King Abdulaziz University, Jeddah Saudi Arabia (2012-present)

BrainKorea21 Program (BK21 Plus) Distinguished Visiting Professor, Department of Energy Engineering, Hanyang University, Seoul Korea (2016-present)

WCU (World Class University) Distinguished Visiting Professor, Department of Energy Engineering, Hanyang University, Seoul Korea (2009-present)

Emeritus Professor, School of Engineering of the University of Calabria (2012)

Professor of Chemistry and Electrochemistry at the School of Engineering of the University of Naples (since 1968-1982)

Professor at the School of Engineering of the University of Calabria (1981-2011).

Dean of the School of Engineering of the University of Calabria (1982-1985).

Other Assignments

Founding Director of the Institute on Membrane Technology (ITM) of CNR (from 2011)

Director of the Institute on Membranes and Chemical Reactors of the National Research Council (1993 - 2001).

Director of the Institute on Membrane Technology (ITM) of CNR (2002 - 2008)

Main Research Activities

- Membrane Science and Engineering
- Membranes in Artificial Organs
- Integrated Membrane Processes
- Membrane Preparation and Transport Phenomena in Membranes
- Membrane Distillation and Membrane Contactors
- Catalytic Membrane and Catalytic Membrane Reactors

Major Awards and Honors

1. Honorary Citizen Weihai City, China, for his contribution to Weihai City development (2016)
2. MIAC International Award for International Collaboration and Promotion (October 2015)
3. Fellow of the Royal Society of Chemistry (2014)
4. Academician Semenov Medal of Russian Academy of Engineering Science (2014)
5. Honorary Membership of the Czech Society of Chemical Engineering (2012)
6. "Richard Maling Barrer Prize" of the European Membrane Society, for his "outstanding contributions to membrane science and technology" (July 2011).

7. Doctorate Honoris Causa from University of Paul Sabatier of Toulouse (France) (8 July 2009).
8. Member of the International Advisory Board of the State Key Laboratory of Catalysis, Dalian Institute of Chemical Physics, Chinese Academy of Sciences (2007).
9. International Cooperation Honor Award on September 2005 given by the Membrane Industry Association of China (MIAC) for his special dedication to the International Cooperation between China and Europe in the field of membrane and science technology.
10. Guest Professor in the Environment and Safety Engineering Department at the Jiangsu Polytechnic University, China (since June 2005)
11. Honorary President, European Membrane Society (1999)
12. Honorary Member of the A. V. Topchiev Institute of Petrochemical Synthesis at the Russian Academy of Sciences, Moscow (since 1999).
13. Doctorate Honoris Causa in Chemistry and Chemical Technology from Russian Academy of Science (February 1992).
14. Honorary Professor at the China Northwest University in Xi'an, Shaanxi, People's Republic of China (Sept. 1991).

Scientific Activity:

Involved in the following International Societies and Scientific Committees

Coordinator of Erasmus Mundus Doctorate in Membrane Engineering (EUDIME), November 1st, 2011 - October 31, 2014

Member of the Scientific Advisory Panel (SAP) for the KAUST Water Desalination and Reuse (WDR) Center from 2010

International Adviser of the Mega-Ton Water System project under Japanese Funding Program for World-Leading Innovative R&D on Science and Technology (FIRST Program) from 2010

President of the European Society of Membrane Science and Technology (today European Membrane Society) (1982 - 1998).

Member of Executive Council of the European Federation of Chem. Engineering (1996 - 2004)

Chairman of the Working Party on Membranes of the European Federation of Chemical Engineering (since 1985)

Chairman of the Section on Membrane Engineering of the European Federation of Chemical Engineering

Patron Member of the Indian Membrane Society

Member of the Interim Board of Governors of the Middle East Desalination Research Center, Oman, Muscat (1994 - 1996)

Member of the Advisor Board of the UNESCO Center on Membrane Science and Technology at the New South Wales University, Australia.

Member of the International Scientific Advisory Committee of the Grand Water Research Institute at Technion - Israel Institute of Technology, Israel (2004)

Member and Moderator of the Research Advisory Council of the Middle East Desalination Research Center, Oman, Muscat (since May 1997)

Member of the NATO/CCMS Pilot Study on "Clean Products and Processes" (Phase II) (2002-2007)

International Scientific Counselor of the Membrane Industry Association of China (since 2002)

Member of the International Advisory Committee of the State Key Laboratory of Catalysis (SKLC), Dalian, Chinese Academy of Science (2007)

Member of the Integrative Management Team of the European Network of Excellence on Nanoscale-based Membrane Technologies (NanoMemPro) funded within the 3rd priority of the European Commission's Sixth Framework Programme (2004-2009)

Founding member of the European Federation on Regenerative Medicine (since 2006)

Expert in the panels of the OECD project "Nanotechnology and clean water" (www.oecd.org/sti/nano)

Member of the ASME Industrial Water Treatment Committee

Director of Research Projects on Membrane Science and Technology sponsored by the C.N.R., M.U.R.S.T., E.N.E.L.-C.R.I.S., E.N.E.L.-G.R.E., F.I.A.T., Montedison, Assoreni, S.A.M.I.M., U.S.A.F., Committee Energy Atomique (France), DGXII - E.U., Progetto Finalizzato Chimica Fine, Progetto Finalizzato Energia II, Tecnofarmaci, Unioncamere, Parmalat, Technip Italia, Biofil, TecnoProgetti, Tecnomare, ABB and other National and International Agencies and Industries, Ausimont, Alteco, Supercolori Spa, BEA, Barilla, Renco, Procter & Gamble Italia S.p.a., ITESTS, ENEL, RHODIA, SOLVAY, etc.

Director and/or lecturer in various postdoctoral Schools on Membrane Science and Technology sponsored by CESVITEC, Italian Chemical Society, FAST, FORMEZ, Plastic Institute of America, NATO Advanced Study Institute, European Society of Membrane Science and Technology, Comm. Eur. Communities, FOIST, etc.

Coordinator or Scientific responsible in various EU projects. The most recent are :

MATCHING - Materials & Technologies for Performance Improvements of Cooling Systems in Power Plants ; IDEA - Development of a solar powered, zero liquid discharge Integrated DESalination Membrane system to address the needs for water of the Mediterranean region ; NAWADES - Nanotechnological application in WATER DESalination; CapWa - Capture of evaporated water with novel membranes; Membrane- Based Desalination: an Integrated Approach acronym MEDINA; Erasmus Mundus Doctorate in Membrane Engineering (EUDIME); Nanoglowa; Design and Manufacturing of Catalytic Membranes Reactors (DEMCAMER);

ReaPower - Reverse electro dialysis alternative power production; NANOMEMPRO - Expanding membrane macroscale applications by exploring nanoscale material properties; INNOWA - Technology partnership for innovative treatment of drinking and industrial water; PROMEMBRANE- Promotion and focussing of current research activities of Membrane Technology in Water Treatment in the Mediterranean Region; IMeTI - Implementation of Membrane Technology to Industry; NEMOPUR -New Molecular Purification Technologies For Pharmaceutical Production; MEDIRAS - Membrane Distillation in Remote Areas;

Director of various international bilateral research programs (USA/Italy, France/Italy, Korea/Italy, China/Italy, Egypt/Italy, Japan/Italy, Russia/Italy, etc.).

Scientific Coordinator of various international Contracts/Agreements

ITM-CNR-KACST - (1)Hydrophobic membrane preparation for membrane contactors application; ITM-CNR-KISR (Kuwait Institute for Scientific Research) - Evaluation of the potentialities of the membrane distillation technology for desalting de-oiled filtered high concentrated saline waters; RHODIA; etc

Author of more than 800 scientific papers and 22 patents in the field of Membrane Science and Technology.

Executive Editor

Applied Water Science Journal, Springer Berlin Heidelberg (Germany)

Executive Editor (for Europe)

Membrane Water Treatment, Techno Press, Daejeon (Korea)

Member of the Advisory Board:

Sustainable Water and Wastewater Treatment Technologies-Book series-CRC press

Journal of Membrane Science – Elsevier

Polish Journal of Chemical Technology

Advances - RSC

Member of the International Advisory Board:

Journal of Water Supply: Research and Technology - AQUA

Senior Advisor:

Chinese Journal of Membrane Science and Technology (China)

Technology of Water Treatment Journal (China)

Member or past member of the Editorial Boards:

Journal of Membrane and Separation Technology-Lifescience Global

International Journal of Green Technology-IJGT – Revotech Press

Journal of Membrane Science and Research (JMSR)- Membrane Processes Research Center (MPRC)

Chemical Engineering and Processing - Elsevier

Desalination - Elsevier

Chemical Engineering and Technology Journal - Wiley-VCH;

Industrial & Engineering Chemistry Research (from Jan. 2002) – American Chemical Society;

Separation Science and Technology - M. Dekker

Clean Technologies and Environmental Policy - Springer-Verlag;

Water Treatment - China Ocean Press (China);

Russian Journal of Physical Chemistry - MAIK Nauka, Interperiodica Publ. (Russia);

Journal of Separation and Purification Technology - Childwall University Press (China);

Journal of Molecular Catalysis (1982–1992) – Elsevier

Anales de Fisica - La Sociedad (Spain);

Membrane Science and Technology – Lanzhou (China)

La Chimica e L'Industria - Editrice di chimica (Italy);

Chimica Oggi – TeknoScienze (Italy);

Acqua-Aria – Arti poligrafiche europee (Italy);

Orizzonti Tecnologici – CESVITEC (Italy)

Journal Carbon Resources Conversion (China)

Annals of Limnology and Oceanography

Guest Editor

Special Issue on Membrane Engineering for Process Intensification, *Industrial & Engineering Chemistry Research*, Volume 46, Issue 8 (April 2007)

Special Issue on Membrane Contactors, *Journal of Membrane Science*, Volume 257, Issues 1-2 (July 2005)

Special Issue on Membrane Reactors, *Chemical Engineering and Processing: Process Intensification*, Volume 43, Issue 9 (September 2004)

Member of the Scientific Committee of ENICHEM S.p.A., Milan (1985-87), Tecnofarmaci S.p.A. (Rome); Member of the Technical Committee of CESVITEC (Naples); Concia Ricerche (Milan), Rhone Poulenc Industrialisation (France) (1993-2000), Danish Separation Systems AS (DSS) – Nakskov (Denmark), etc.

Served as expert or consultant of various National and International Organizations as U.N.D.P.; Economic Council of EUROPE, UN, Geneva; Commission of the European Community; DG XII, Brussels, Belgium; Nat. Science Foundation, Washington, USA; Australian Research Council, Canberra, Australia; Swedish Research Council for Engineering Science, Sweden; NATO (Science for Peace Program); Ministero dell'istruzione, dell'università e della Ricerca, Ministero per le Attività Produttive (Italy); Qatar National Research Fund; etc.

Member of the National Committee for Chemistry of the Ministry for University and Scientific

Research (1988).

Member of "Commissione tecnico-consultiva "Innovazione e Trasferimento Tecnologico" of IPI (The Institute for Industrial Promotion) of Ministry of Productive Activities

Served as Member of the Commission for the Evaluation of Doctorate Thesis in Chemical Engineering at the University of Twente (The Netherlands), at the University of New South Wales (Sydney, Australia), at the Ecole Polytechnique Federale de Lausanne (Lausanne, Switzerland), at Dept. of Food Eng. University of Lund (Sweden), at Dept. of Chemistry, Glasgow University (U.K.), at Indian Institute of Technology, (Kanpur, India), at ENSIC - University of Nancy (France); at University of Paul Sabatier of Toulouse (France); at Hanyang University(Korea); at King Abdullah University of Science and Technology (KAUST) (Saudi Arabia); Engineering and Physical Sciences Research Council (EPSRC); Israel Science Foundation (ISF)

Visiting scientist at the Max Plank Institut für Biophysic, Frankfurt a.m.; at the Chemical Engineering Department of the North Carolina State University, Raleigh, USA; at The Bend Research, USA; at the Institute of Membrane Science and Technology, Lanzhou, R.P.China; at the Demokritos Nuclear Research Center, Athens, Greece, WCU Energy Engineering Department-Hanyang University, King Abdulaziz University- Center of Excellence in Desalination Technology (KAU-CEDT) etc.

Invited lecturer at various Universities, Scientific Institutions and Industrial Research Groups in Australia, Austria, Bahrain, Belgium, Bielorussia, Brazil, Czechoslovakia, Demark, Egypt, Finland, France, Greece, Holland, Israel, Japan, Jordan, Kuwait, Malesia, Malta, Norway, Oman, P.R. China, Poland, Portugal, Russia, Singapore, Slovakia., Spain, Sweden, Switzerland, UK,USA, USSR, Germany, Bangladesh, South Korea, Taiwan, Saudi Arabia;

Member of A.I. Ch. E., ACS, Soc. Chim. Ital., European Membrane Society, NAMS, etc.

Various bilateral agreements have been recently signed by Prof. E. Drioli (as ITM-CNR Director) for collaboration with Korean and Chinese Institutions (e.g. Gyeongsang National University (Korea); Korea Research Institute of Chemical Technology – KRICT (Korea); Seoul National University (Korea); Harbin Institute of Technology at Weihai (China); Shandong Science & Technology Department (China); Membrane Industry Association of China.