

Marino Lavorgna – short CV

EDUCATION

- PhD in Polymer Technology at Polymer Technology and Engineering Materials (IPTME), Materials Department, Loughborough University, Loughborough (UK).
- Master degree in “Industrial Chemistry” at University of Naples Federico I.

WORKING POSITIONS

- Research Director with permanent position, I Level, National Research Council
- Visiting researcher at Department of Materials of Sichuan University in the framework of Graphene based Nanocomposite- Joint Lab between IPCB-CNR and SKPLME Sichuan University, from 05/04/2016 to 03/05/2016 and from 20/08/2017 to 12/09/2017.
- Visiting researcher at Institute of Macromolecular Chemistry AVCR Academy of Sciences of the Czech Republic in the framework of the international cooperation between CNR and AVCR (Czech Rep), from 04/10/2010 to 14/10/2010.
- Visiting Researcher Associate at Institute of Polymer Technology and Engineering Materials, Loughborough University, Loughborough (UK), from 25/11/2003 to 14/11/2004.

MAJOR SCIENTIFIC CONSULTANCIES

- Member of the Scientific Committee board of the Department of Chemical Science and Materials Technology of the National Research Council (elected by the researchers and technologists of the Department), 2019-2023.
- Member of the Scientific and Technological Committee of IMCB-CNR, from 2008 to 2013.
- Member of the scientific board of the Italy Chemistry Society of the Regione Campania, from 2012 to 2017.
- Scientific Responsible of the Secondary Working Site of Institute of Polymers, Composites and Biomaterials, IPCB-CNR SS in Lecco (Regione Lombardia), from November 2019-present.
- Secretary of the Multifunctional Polymers and Biomaterials Research Center established between the Department of Chemical Sciences and Materials Technology of CNR and the Sichuan University, from May 2014-present.
- Delegate member of CNR and DSCTM-CNR for the Table related to the Scientific and Technology Research between Italy and China established by the Minister of Foreign Affairs of Italy from 2014 to 2018.
- Member of the International Evaluation Panel for evaluation social and quality impact of Bata University in Zlin (Czech Rep), 2020.
- Permanent member of the International Scientific Committee of the PolyChar Congress, World Forum on Advanced Materials, from 2018 – present.
- Member of the International Exchanges Panel of the Royal Society grants and awards, from January 2019 – present.
- Expert Evaluator for the Italian Ministry of Economical Development (MISE) of the Programma Fondo per la Crescita Sostenibile FCS, 2014-2015.
- Expert Evaluator for the Italian Ministry of Research and University of the Programma “Futuro in Ricerca”, 2013 and SIR, 2014.
- Expert Evaluator for the Latvian (2013) and Kazakistan (2012-2013-2014-2016-2017-2018-2019-2020) Council of Research and Technology of research projects in the field of advanced

materials.

- Expert Evaluator for the Ministry of Education, Youth and Sports of Czech Rep for the project Individual National Projects for the Area of tertiary Education, research and development, 2015.
- Representative for the Italian Ministry of Research as Member Substitute in the Managing Committee of the COST action “CA19118 - High-performance Carbon-based composites with Smart properties for Advanced Sensing Applications”, 2020-2024.
- International Expert in the research project of Sichuan University Talent 111, 2013-2018.
- International Expert in the Research team of the project by HITSZ International Science and Technology Cooperation Project founded by Shenzhen Government (Project number GJHZ20130411141529167).
- International Expert in the project “Development of polymer nanocomposites by using ILs” [400531/2013-5] of Institute of Quimica of Universida de Federal do Rio Grande do Sol, 2013-2016.
- Participation to the international project of the Sichuan University “Advanced graphene based nanocomposites” 2015DFA51110, funded by MOST-China, 2015.
- Participation to the COST Action HINT (Rational Design of Hybrid Interfaces), 2015 and COST Action CA19118 - High-performance Carbon-based composites with Smart properties for Advanced Sensing Applications, 2020-2024.

SCIENTIFIC CREDENTIALS

Prizes and Honors

- Member of the winner team of the International Polymer Challenge Price awarded by VenetoNanotech and Imast scral in 2007 with the project HYPUCEM focused on the realization of a new hybrid material for building applications (Prize 300.000€).
- Several Highly commendable Awards for papers or posters presented in international congress:
a) 5th International Conference on Ground Improvement Techniques, 22-23 March 2004 Kuala Lumpur, Malaysia, b) The Polymer Processing Society 24th Annual Meeting, June 15-19, 2008, Salerno (Italy); c) 3rd Shelf Life International Meeting, Ischia 25-27th June; d) 5th Shelf Life International Meeting, June 2012, Busan (Corea); e) 7th Shelf Life International Meeting for Young, 21-23 October 2015, Monza (Italy).
- Highly cited paper from WoS (more than 50 citations from 2019): Y.Zhan, M.Oliviero, J.Wang, A.Sorrentino, GG.Buonocore, L.Sorrentino, M.Lavorgna, H.Xia, S.Iannace, “Enhancing the EMI shielding of natural rubber-based supercritical CO₂ foams by exploiting their porous morphology and CNT segregated networks”, *Nanoscale* 11, 1011-1020, 2019. ISSN: 2040-3372

Invited Lectures

He has been invited as Invited Speaker in several Italian and international workshops and Congress focused on Advanced Materials:

- Milan Polymer Days, Milano (Italy), 2020;
- Biofoams 2018, the 6th International Conference on Biofoams, Chengdu (China);
- China-Italy Biomaterials & New Materials Forum in the framework of the 17th Western China International Fair, Chengdu (China);
- PolyChar26, Tblisi (Georgia);
- Workshop Mexico-Italy, Trends in Polymeric Materials for Biotechnology Applications organizzato da Conacyt, Ciatej ed IPCB-CNR;
- Nanomaterials for Cultural Heritage, in NanoInnovation 2017;
- ISAN2017, International Symposium on Advanced Materials, Chemistry, Physics and Biology, Peterhof, Russia;
- 16th Scientific and Technical Conference on Engineering Polymers and Composites 2017, Gliwice

- Istebna;
- 17th IUMRS International Conference in Asia (IUMRS-ICA2016), Symposium S Polymers Engineering Materials, Qingdao, China
- Nanoscience and Nanotechnology 2016, INFN Laboratori Nazionali di Frascati Roma;
- NanoInnovation 2016, Sapienza Università di Roma, Sessione Cultural Heritage organizzato da CSGI;
- Workshop Italia-Messico “Studio, conservazione e restauro del patrimonio culturale e archeologico: tecnologie e infrastrutture di ricerca per la Scienza del Patrimonio Culturale”, Organizzato dal CNR e MAECI ed Istituto Italiano de Cultura en Mexico (IIC)-Citta del Messico;
- Symposium Multidisciplinary Chemistry Without Borders, Brazil;
- XIV Latin American Symposium on Polymers, XII Ibero American Congress on Polymers, Porto de Galinhas, PE, Brazil;
- 1st China-Italy Bilateral Workshop on Graphene, Dalian, China.

Editorial activity

- Member of the Advisory Editorial Board of ACS Applied Polymer Materials, from 11 January 2021.
- Associate Editor of Polymer Chemistry (Speciality Sections in Frontiers in Chemistry and Frontiers in Materials), from 27 Sept 2020.
- Member of Editorial Board of Materials (IF 3.1), MDPI Edition from 2019.
- Editor of Polymers (IF 3.5), MDPI Edition from July 2019.
- Member of Advisory Board of Science and Engineering of Composite Materials (IF 0.7), De Gruyter Edition, from 14 December 2018.
- Member of Academic Board of Advances in Materials Science and Engineering (IF 1.27), Hindawi Ed. from 2016.
- Guest Editor of Special Issue “Graphene-Related Nanocomposites for a Sustainable World: from Design to the Final Validation”, in Polymer Applications Section, Polymers, from 2019 – present.

Academic Qualification

- Qualification of I level (full professor for teaching in 09/D1 class (Materials Science and Technology)), from January 2020.
- Qualification of II level (associate prof for teaching in 09/D1 class (Materials Science and Technology)), from January 30st, 2014 to January 2020.

Tutoring activity

- Tutor of three PhD students (Katarzyna Joanna Zawada Donato, Eveline Bischoff, Douglas Alexandre Simon) from University of Porto Alegre (Brasil), (2014-2015); tutor of several master students from Sichuan University with internship to IPCB-CNR, Portici (2018-2019); tutor of visiting researchers: prof R.Andrade and prof Guilhermino J. Fehine and prof Ricardo Donato from Mackgraphe Institute (Brazil) (in the framework of Graphene 3D project), prof Y.Zhan from Liaocheng University (China), Fayong Li, post-doc researcher, del Guagdong Bioengineering Institute (Guangzhou Surgarcane Industry Research Institute), prof Wang Ying-lei del Xian Modern Chemistry Research Institute; tutor of several Master theses with the DICMaPI department of Federico II University (from 2002 – to present); tutor of PhD course of Elena Orlo, Research, Environment, Design and Innovation, XXXIV Ciclo (University Vanvitelli); Barbara Galzerano, Industrial Product and Process Engineering, XXXII Ciclo, Gennaro Rollo, Engineering of Products and Industrial Processes, XXXIII Ciclo; Emanuele Lago, Sciences and Technologies of Chemistry and Materials, XXXI Ciclo (University of Genova-IIT with short internship at IPCB-CNR in Portici); Chiara Ascione, Industrial Product and Process Engineering, XXX Ciclo; Ilaria Capasso, Industrial Product and Process Engineering, XXIX

Ciclo, Filomena Piscitelli, Materials and Structure, XXIII Ciclo and Letizia Verdolotti, Materials and Structure, XX Ciclo.

Organization of Research, Congress and Workshop

- He has been involved in the organization of research in international projects as WP Leader (Nanorestart project, and Graphene 3D), in the organization of Workshop and Seminars in international events.

Publications

- Research areas addressed: development of multifunctional polymer based composite and bionanocomposite (with inorganic fillers as silica mesoporous, Layer Double Hydroxides, silica and titania and carbon-based filler as carbon nanotubes and graphene).
- Bibliometric parameters in ISI Web of Science (March 2021): H-Index 31
- Number of total citations WoS: 3040
- Average citations per item WoS: 19.2
- H-Index: Scholar: 36 (more than 4000 citations), Scopus: 32

RESEARCH PROJECTS (Research Responsibility on behalf of IPCB-CNR)

EU FUNDED PROJECTS

- Horizon 2020, “NANOmaterials for the REStoration of works of ART” NANORESTART and WP Leader of the WorkPackage 4 focused on the development of Protective coatings, grant agreement No 646063,
- “Innovative materials and techniques for the conservation of 20th century concrete-based cultural heritage”, Horizon 2020 focused on the development of new materials for the conservation of concrete structures of interest for the Cultural heritage, Responsible for IPCB, 2018-2021
- APACHE “Active & intelligent Packaging materials and display cases as a tool for preventive conservation of Cultural Heritage” (n. 814496), Responsible for IPCB, 2019-2022.

INTERNATIONAL COOPERATION PROJECTS

- International cooperation project “Electrically conductive polymer nanocomposite films with carbonaceous fillers for electronic packaging” cooperation between CNR, SKPLME of Sichuan University and Institute of Organic Chemistry (CAS), Coordinator for CNR, 2011-2013.
- International cooperation project “New sustainable approaches in the synthesis of epoxy-silica hybrids with tuneable properties” between IPCB-CNR and the Institute of Macromolecular Chemistry (AVCR), Coordinator for CNR, 2013-2015.
- Coordinator of Joint Laboratory for Graphene-based Multifunctional Polymer Nanocomposites established between the CNR and the State Key Laboratory of Polymer Materials Engineering of Sichuan University, Chengdu, China, 2015-2018
- Grande Rilevanza project founded by the Minister of Foreign Affairs of Italy “Graphene and perovskite hybrid materials for energy and environment applications (GRAPE-MAT)” for the international cooperation Italy-China, Responsible for IPCB, 2015-2018.
- Grande Rilevanza project founded by the Minister of Foreign Affairs of Italy “Graphene related INnovative 2D materials for Sustainable ENerGetIcs and catalysis (GINSENG)”, PI prof Granozzi (UNIPD), Responsible for IPCB, 2018-2020.
- Responsabile for IPCB of the sub-project ‘Development of spherical building blocks’ in the framework of the project “In situ formation of 3D nanostructured lightweight polymer composites”, FOR3DNANO call: Research Interests of the Air Force Office of Scientific Research, BAA-AFOSR-2015-0001 (resp dr S.Iannace).

NATIONAL FUNDED PROJECTS

- MIUR Research Project “Innovative Composite Materials for Buildings Applications”, MACE, industrial project IMAST scral, Responsible IPCB, 2007-2010.

REGIONAL PROJECTS

- Legge 5/2002, Regione Campania, “Optimization of Nafion ionomeric membrane for Fuel Cells applications by using organo-modified silica domains”. Coordinator, 2002-2004, value 54k€.
- Misura POR 3.17, “Development of composite materials based on polyurethane for nautic applications”, Responsible for IPCB, 2003-2004.
- Responsible for IPCB SS Napoli/Portici of the research project “Rete Intelligente dei Parchi Archeologici (RIPA - PAUN), funded by Campania region n. 350 of 25/05/2017, DD n. 36 of 10/12/2018”, (Prot 0002686 on 27/12/2018).

INDUSTRIAL PROJECTS

- INAIL project MAPS, Multimaterial for Adapted Prosthetic Socket with INAIL focused on the development of new materials for prosthesis, Responsible for IPCB, 2017-2019, value 276k€.
- INAIL project PROFIL, Filamenti Multimateriali per la Realizzazione di protesi personalizzate ad alte prestazioni con focus su adaptive sport, funded by INAIL focused on the development of new materials for prosthesis (2020-2023), Coordinator, 2020-2023.
- Industrial project, Diatech srl “Development of bio-soluble basalt fibers as reinforcing of composite materials for civil building and automotive applications, TERA Total Ecological Rock Applications”, Responsible for IPCB, 2005-2007.