



**DEPARTMENT OF
MATERIALS SCIENCE**

Via Roberto Cozzi, 55
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Dr. Roberto Nisticò, PhD
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Date and Place of Birth 04/04/1987, Torino (TO)
Nationality Italian citizenship
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Scopus Author ID: 55224717100; **WOS Researcher ID:** E-5568-2016; **ORCID:** 0000-0001-8986-5542.

RESEARCH ACTIVITY

Roberto Nisticò (RN) is Fixed-Time Assistant Professor (RTD-b), i.e. tenure track Associate Professor, in General and Inorganic Chemistry at the University of Milano-Bicocca (Department of Materials Science, Italy). Up today, RN published more than 80 publications on renowned international journals (mostly as first and/or corresponding author) and two book chapters. Additionally, RN is member of the Editorial Board of the journal *Inorganics*. The research activity of RN mainly focuses on several aspects at the interface between inorganic chemistry, and materials science, always looking for novel and appealing solutions for a sustainable future. The principal field of interest is the development of magnet-responsive nanomaterials (i.e., iron oxides, ferrites) and other inorganic systems for the environmental remediation of contaminated (waste)water, (photo)catalysis, and energetic applications.

BIBLIOMETRIC INDICATORS (Scopus Database)

Number of Publications: **87**; Citations: **2530**; H-index: **27**.

BIBLIOMETRIC INDICATORS (WOS Database)

Number of Publications: **88**; Citations: **2252**; H-index: **25**.

CAREER

Feb 2022 – today Fixed-Time **Assistant Professor** (RTD-b), University of Milano-Bicocca, Milano, Italy
General and Inorganic chemistry, CHIM/03 – 03/B1

Oct 2020 – Dec 2021 **GMP QC Analyst**, PolyCrystalLine SpA, QC-Unit, Medicina (BO), Italy

Feb 2019 – Oct 2020 Permanent **Researcher**, Bio-ON SpA, CNS-Unit, Castel S. Pietro Terme (BO), Italy

Jan 2017 – Feb 2019 Fixed-Time **Researcher** (RTD-a), Polytechnic Institute of Torino, Torino, Italy
Materials Science and Engineering, ING-IND/22 – 09/D1

Mar 2016 – Jan 2017 **Post-Doc**, University of Torino, Torino, Italy
An integrated approach for the treatment of micropollutants: oxidation, membrane technologies and new adsorbing materials

Mar 2015 – Feb 2016 **Post-Doc**, University of Torino, Torino, Italy
Use of natural substances for obtaining useful materials for environmental applications

EDUCATION AND TRAINING

Jan 2015 **PhD Chemical and Materials Sciences**, University of Torino, Supervisor: Dr. G. Magnacca
Development of oxidic and polymeric materials for controlled transport and/or release. Rank: Excellent

Dec 2011 **Professional Certification**, Chemist sect. A, Order of Chemists of Piemonte and Valle d'Aosta

Oct 2011 **MSc Industrial Chemistry**, University of Torino, Tutors: Dr. G. Magnacca, Dr. M.G. Faga (CNR)
Physico-chemical characterization of hernioplasty polypropylenic meshes functionalized with antibiotic agent. Marks: 110/110 cum laude

Oct 2009 **BSc Industrial Chemistry**, University of Torino, Tutor: Prof. L. Costa
Oxidation mechanism after e-beam irradiation of polypropylene films. Marks: 104/110

EDITORIAL ACTIVITIES

- **Inorganics** (ISSN 2304-6740, MDPI)
 - Member of the **Editorial Board** (since 2022)
 - Member of the **Section Board "Inorganic Materials"** (since 2022)
 - Member of the **Topical Advisory Board** (2021-2022)
 - Member of the **Reviewer Board** (since 2021)
 - Guest Editor SI** *Feature Papers in Inorganic Materials 2024*. Online (2024)
 - Guest Editor SI** *New Advances into Nanostructured Oxides II*. Online (2024)
 - Guest Editor SI** *10th Anniversary of Inorganics: Inorganic Materials*. Published online and printed as a book (2024)
 - Guest Editor SI** *New Advances into Nanostructured Oxides*. Published online and printed as a book (2023)
 - Guest Editor SI** *Smart Tools for Smart Applications: New Insights into Inorganic Magnetic Systems and Materials*. Published online and printed as a book (2021)
- **Frontiers in Environmental Engineering** (ISSN 2813-5067 Frontiers)
 - Environmental Catalysis Sect.:* Member of the **Reviewer Board** (since 2024)
- **Polymers** (ISSN 2073-4360, MDPI)
 - Member of the **Reviewer Board** (since 2020)
- **Frontiers in Materials** (ISSN 2296-8016, Frontiers)
 - Carbon-Based Materials Sect.:* Member of the **Reviewer Board** (since 2018)
- **Frontiers in Chemistry** (ISSN 2296-2646, Frontiers)
 - Inorganic Chemistry Sect.:* Member of the **Reviewer Board** (since 2018)
- **Journal of Nanomaterials** (ISSN 1687-4110, Hindawi)
 - Guest Editor SI** *Environmental Sustainability in the Synthesis and Characterization of Hybrid/Composite Nanomaterials*. Published online (2018)



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Reviewer

Nature Publishing Group (Scientific Reports).

ACS (ACS Applied Materials and Interfaces).

RSC (Journal of Materials Chemistry B, New Journal of Chemistry, RSC Advances).

Elsevier (Applied Surface Science, Chemical Physics Letters, International Journal of Biological Macromolecules, Journal of Analytical and Applied Pyrolysis, Journal of Hazardous Materials, Journal of Materials Science and Technology, Journal of Photochemistry and Photobiology A: Chemistry, Journal of the European Ceramic Society, Materials Letters, Materials Science and Engineering C, Polymer Degradation and Stability, Science of the Total Environment).

Wiley (Chemistry Select).

Springer (Cellulose, Journal of Materials Science, Journal of Polymers and the Environment, Korean Journal of Chemical Engineering, Water Air and Soil Pollution).

MDPI (Clean Technologies, Coatings, Energies, Inorganics, International Journal of Molecular Science, Magnetochemistry, Marine Drugs, Materials, Metals, Molecules, Nanomaterials, Polymers, Sustainability).

Taylor and Francis (International Journal of Smart and Nano Materials).

IOP (Materials Research Express).

Sage (Polymers and Polymer Composites).

Others: *BMC - Springer Nature* (BMC Biotechnology) *AIP* (Applied Physics Letters), *BME-PT and GTE* (eXPRESS Polymer Letters), *Frontiers* (Frontiers in Chemistry).

AWARDS

- 2024** *"Journal of Alloys and Compounds 2024 Best Paper"* Award, provided by the Journal of Alloys and Compounds (Elsevier, Netherlands). For the best paper/review published during the year 2024. Selected publication: R. Nisticò, R. Mantovan, M. Cantoni, C. Rinaldi, M. Malandrino, S. Mostoni, M. D'Arienzo, B. Di Credico, R. Scotti, Hydrothermal synthesis of Cu-substituted Ni ferrites: Structural, morphological, and magnetic properties. *Journal of Alloys and Compounds* 981 (2024) 173628. DOI: 10.1016/j.jallcom.2024.173628. **Winner.**
- 2024** *"IUPAC Young Observer (2024-2025)"*, provided by the Italian Commission for IUPAC (International Union of Pure and Applied Chemistry) represented by the CNR as National Adhering Organization (NAO), representing Italy for the two-year period 2024-2025. This assignment is intended for observers preferably under the age of 35 and in any case not over 40 years of age (maximum age, completed on the deadline of the call) operating in Italy, coming from the academic world, research institutions and industry. **Winner.**
- 2023** *"Premio Gian Giacomo Drago e Fausta Rivera Drago"* provided by the Istituto Lombardo Accademia di Scienze e Lettere (Italy) – 2023 Edition. This Award is intended for a young researcher (under 40 years of age) who has distinguished himself/herself for relevant studies in the field of the environmental protection. Motivation: *"For his research aimed at the development of magnetic nanomaterials properly functionalized and silica- and titania-based porous nanomaterials for the environmental remediation of contaminated water, also exploiting photocatalytic processes"*. **Winner.**
- 2022** *"Premio Giovani Talenti"*, Young Talents Award of the University of Milano-Bicocca (Italy) with the sponsorship of the Accademia Nazionale dei Lincei (Italy) – 2022 Edition. This Award is intended for young researchers (under 36 years of age) working at the University of Milano-Bicocca. Category Chemical Sciences and Earth Sciences. Motivation: *"For his high-level works in the field of materials science and in particular of magnetic nanomaterials properly functionalized at the surface with products of biological origin"*. **Winner of the Second Prize.**
- 2022** *"Inorganics 2020 Best Paper"* Award, for the category: Review, provided by the journal *Inorganics* (MDPI, Switzerland). For the best paper/review published during the year 2020. Selected publication: R. Nisticò, F. Cesano, F. Garelo, Magnetic materials and systems: Domain structure visualization and other characterization techniques for the application in the materials science and biomedicine. *Inorganics* 8 (2020) 6, pp.1-59. DOI: 10.3390/inorganics8010006. **Winner.**
- 2018** *"Alfredo Di Braccio"* Award, provided by the Accademia Nazionale dei Lincei (Italy). For a scholar in Chemistry. **Finalist (not winner) with mention of merit by the examining Committee.**
- 2017** N° 3 *"Publons Peer Review Awards"* (n°3), provided by Publons, and Web of Science (WOS). For being among the *"Top Reviewers for the Polytechnic Institute of Turin"* in 3 categories: i) Materials Science, ii) Engineering, iii) Physics & Astronomy. **Winner.**
- 2014** *"Macrogiovani 2014"*, provided by the Associazione Italiana di Scienze e Tecnologie delle Macromolecole (AIM). For the best oral presentation during the XXI Convegno Nazionale AIM of Torino (Italy). **Winner.**

NATIONAL QUALIFICATIONS

- **General and Inorganic Chemistry [S.C. 03/B1]**
as Full Professor. Validity from 08/06/2023 to 08/06/2034
as Associate Professor. Validity from 01/02/2022 to 01/02/2033
- **Chemical Foundations of Technologies [S.C. 03/B2]**
as Associate Professor. Validity from 05/11/2024 to 05/11/2035
- **Materials Science and Engineering [S.C. 09/D1]**
as Associate Professor. Validity from 31/05/2021 to 31/05/2032
- **Environmental & Cultural Heritage Chemistry [CHIM/12; S.C. 03/A1]**
as Associate Professor. Validity from 12/11/2020 to 12/11/2031
- **Industrial Chemistry [S.C. 03/C2]**
as Associate Professor. Validity from 13/05/2019 to 13/05/2030
- **Experimental Physics of Condensed Matter [S.C. 02/B1]**
as Associate Professor. Validity from 26/07/2018 to 26/07/2029
- **Applied Physics [FIS/07; S.C. 02/D1]**
as Associate Professor. Validity from 12/09/2018 to 12/09/2029

MEMBERSHIPS

- **National Interuniversity Consortium of Materials Science and Technology (INSTM)**
As Member of the Energy and Environment Section. Since 2022
- **Italian Chemical Society (SCI) – ID: 18367**
as Member of the Inorganic Chemistry Division. Since 2022
as Member of the Physical Chemistry Division. From 2012 to 2020
- **Associazione Italiana di Scienza e Tecnologia delle Macromolecole (AIM)**
as Member of the Scientific Committee. From 2013 to 2015
as Member. From 2012 to 2020
- **Order of Chemists of Piemonte and Valle d'Aosta**
as Member. From 2012 to 2016

VISITING PERIODS

Oct 2015 – Nov 2015

National University of Comahue, PROBIEN, Neuquen, Argentina

Project: Magnetic materials from natural sources for wastewater treatments

Supervisors: Prof. M.E. Parolo, Dr. L. Carlos

Sep 2015 – Oct 2015

National University of La Plata, INIFTA, La Plata, Argentina

Project: Magnetic materials from natural sources for environmental applications

Supervisor: Prof. D.O. Martire

Apr 2015 – May 2015

National Polytechnic Institute of Toulouse, AGROMAT, Tarbes, France

Project: Extruded biobased composite films from urban biowaste as added value products

Supervisors: Prof. C. Vaca-Garcia, Dr. P. Evon

Jun 2014 – Aug 2014

Max-Planck Institute of Colloids and Interfaces, Potsdam-Golm, Germany

Project: Synthesis of functional nanoporous oxides and their hybrids under hypersaline conditions

Supervisors: Prof. M. Antonietti, Dr. N. Fechner

Jun 2013 – Aug 2013

Max-Planck Institute of Colloids and Interfaces, Potsdam-Golm, Germany

Project: Sol-gel chemistry of silica under hypersaline conditions

Supervisors: Prof. M. Antonietti, Dr. N. Fechner



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DIDACTIC/TEACHING ACTIVITIES

University of Milano-Bicocca	Coordination and Organometallic Chemistry <i>as Titular Teacher (Laboratory). MSc Chemical Sciences and Technologies (IT)</i> <i>as Member of the Evaluation Committee of the course</i> <i>Academic Years: 2022/2023, 2023/2024, 2024/2025</i>
University of Milano-Bicocca	Inorganic Chemistry I and Laboratory <i>as Titular Teacher (Laboratory). BSc Chemical Sciences and Technologies (IT)</i> <i>as Member of the Evaluation Committee of the course</i> <i>Academic Years: 2021/2022, 2022/2023, 2023/2024</i>
Polytechnic of Torino	Science and Technology of Materials and Metallurgy <i>as Assistant Teacher. BSc Aerospace Engineering (IT)</i> <i>Academic Years: 2017/2018</i>
Polytechnic of Torino	Concept Design – Materials and Technology for the Design <i>as Assistant Teacher. BSc Design and Visual Communication (IT)</i> <i>Academic Years: 2016/2017</i>
University of Torino	Chemistry of Polymeric Materials <i>Laboratory Assistant. MSc Industrial Chemistry (IT)</i> <i>Academic Years: 2016/2017</i>
University of Torino	Inorganic Industrial Chemistry with Laboratory <i>Laboratory Assistant. BSc Industrial Chemistry (IT)</i> <i>Academic Years: 2012/2013</i>

PROJECTS

PRINCIPAL INVESTIGATOR (PI)

2023-on going **PERFECT – Photo(Electro)catalysis for Renewable FuEls produCTion**
as Principal Investigator (Total budget: 224,950 EUR) and Unit Principal Investigator (Unit budget: 78,118 EUR)
as Fixed-Time Researcher (RTD-b) at University of Milano-Bicocca (4.0 Person Months)
 Progetti di ricerca di Rilevante Interesse Nazionale - PRIN 2022 PNRR (D.D. n. 1409 del 14-09-2022).
 Fundend by Ministero dell'Università e della Ricerca (MUR).
 ERC field: PE5 – Synthetic Chemistry and Materials.
 Project code: P2022TK9B9.

UNIT PI

2023-on going **MAPEC - MAgnetic field assisted Photo(Electro) CO₂ Conversion**
as co-Principal Investigator (Total budget: 203,229 EUR) and Unit Principal Investigator (Unit budget: 47,500 EUR)
as Fixed-Time Researcher (RTD-b) at University of Milano-Bicocca (4.0 Person Months)
 Progetti di ricerca di Rilevante Interesse Nazionale - PRIN 2022 (D.D. n. 104 del 02-02-2022).
 Fundend by Ministero dell'Università e della Ricerca (MUR).
 ERC field: PE5 – Synthetic Chemistry and Materials.
 Project code: 2022599NR3.

PARTECIPANT

2018-2019 **DEFLeCT - Digital tEchnology For Lung Cancer Treatment**
as Fixed-Time Researcher (RTD-a) at Polytechnic of Torino (0.4 Person Months)
 Piemonte Regional project 2018-2021 (Call Piattaforma Tecnologica “Salute e Benessere”).

2017-2018 **Composite materials for flexible production riser construction**
as Fixed-Time Researcher (RTD-a) at Polytechnic of Torino
 Research contract with ENI SpA, Unit GEBR - Breakthrough initiative management.

2016 **SFERA - Solar Facilities for the European Research Area**
as Post-Doc at University of Torino
 SFERA program (EC-CIEMAT-PSA; contract n°312643).

2015-2017 **MicroBusters - An integrated approach for the treatment of micropollutants: oxidation, membrane technologies and new adsorbing materials**
as Post-Doc at University of Torino
 Research financial support 2014 (Torino call2014 L2 126).
 Funded by Compagnia di San Paolo and University of Torino.

2015-2018 **Mat4treat - Enhancing water quality by developing novel materials for organic pollutant removal in tertiary water treatments**
as Post-Doc at University of Torino (2.0 Person Months)
 Marie Skłodowska-Curie Research and Innovation Staff Exchange (EU H2020-MSCA-RISE-2014).
 Project Code: 645551

2015 **Extruded biobased composite films from urban biowaste added value products**
as Post-Doc at University of Torino
 COST-European Cooperation in Science and Technology EUBis Action TD1203.
 Project Code: COST-STSM-TD1203-26977).

2012-2014 **OXPOLISTI - Development of oxidic and polymeric materials for stimuli responsive applications**
as PhD student at University of Torino
 Research financial support 2011. Funded by University of Torino.
 Project Code: ORTO114XNH.

2011-2013 **PREVI - Prevenzione e cura dell'infezione in ernioplastica, in chirurgia urologica/uroginecologica e wound care**
as MSc and PhD student at University of Torino
 European Project POR-FESR ASSE I (I.1.3 Innovation and SME; Regione Piemonte; 2010-2013).

PUBLICATIONS LIST (corresponding author)

- 1) L. Viganò, B. Di Credico, F. Parrino, N. Keller, M. Bellotto, M. D'Arienzo, S. Mostoni, S. Latorrata, A. Dotti, **R. Nisticò**, R. Scotti, A new life for tionite industrial waste: Regeneration strategy towards photocatalytic applications. **ChemSusChem** (2024), in press. DOI: 10.1002/cssc.202401698.
- 2) A. Sansonetti, C. Riminesi, S. Mirouniyouk, N. Proietti, V. Di Tullio, **R. Nisticò**, B. Secchi, C. Canevali, Gel cleaning in heritage: Comparison of the water release among gels and traditional pads. **Gels** 10 (2024) 708. DOI: 10.3390/gels10110708.
- 3) G. Bona, G. Bragaglia, M. Cantoni, B. Di Credico, S. Mostoni, G. Capitani, R. Scotti, S. Gross, **R. Nisticò**, Polyethylene glycol-assisted hydro-solvothermal growth of anisotropic magnetic iron oxides: The role of mixed environment conditions. **Colloids and Surfaces A: Physicochemical and Engineering Aspects** 702 (2024) 135117. DOI: 10.1016/j.colsurfa.2024.135117.
- 4) I. Tagliaro, V. Radice, **R. Nisticò**, C. Antonini, Chitosan electrolyte hydrogel with low ice adhesion properties. **Colloids and Surfaces A: Physicochemical and Engineering Aspects** 700 (2024) 134695. DOI: 10.1016/j.colsurfa.2024.134695.
- 5) C. Canevali, A. Sansonetti, L. Rampazzi, D. Monticelli, M. D'Arienzo, B. Di Credico, E. Ghezzi, S. Mostoni, **R. Nisticò**, R. Scotti, The chemistry of chelation for built heritage cleaning: The removal of copper and iron stains. **ChemPlusChem** (2024), in press. DOI: 10.1002/cplu.202300709.
- 6) L. Mirizzi, A. Amighini Alerhush, **R. Nisticò**, M. Malandrino, S. Diré, E. Callone, G. Fredi, A. Dorigato, L. Giannini, S. Guerra, S. Mostoni, B. Di Credico, R. Scotti, M. D'Arienzo, SiO₂@Al₂O₃ binary filler: A chance for enhancing the heat transport in rubber composites for tire applications. **Polymer Composites** 45 (2024) 8091-8103. DOI: 10.1002/pc.28326.
- 7) I. Tagliaro, M. Mariani, R. Akbari, M. Contardi, M. Summa, F. Saliu, **R. Nisticò**, C. Antonini, PFAS-free superhydrophobic chitosan coating for fabrics. **Carbohydrate Polymers** 333 (2024) 121981. DOI: 10.1016/j.carbpol.2024.121981.
- 8) **R. Nisticò**, R. Mantovan, M. Cantoni, C. Rinaldi, M. Malandrino, S. Mostoni, M. D'Arienzo, B. Di Credico, R. Scotti, Hydrothermal synthesis of Cu-substituted Ni ferrites: Structural, morphological, and magnetic properties. **Journal of Alloys and Compounds** 981 (2024) 173628. DOI: 10.1016/j.jallcom.2024.173628.
- 9) D. Montini, C. Cara, M. D'Arienzo, B. Di Credico, S. Mostoni, **R. Nisticò**, L. Pala, R. Scotti, Recent advances on porous siliceous materials derived from waste. **Materials** 16 (2023) 5578. DOI: 10.3390/ma16165578.
- 10) B. Di Credico, E. Manzini, L. Viganò, C. Canevali, M. D'Arienzo, S. Mostoni, **R. Nisticò**, R. Scotti, Silica nanoparticles self-assembly process in polymer composites: Towards advanced materials. **Ceramics International** 49 (2023) 26165-26181. DOI: 10.1016/j.ceramint.2023.05.125.
- 11) L. Mirizzi, M. D'Arienzo, **R. Nisticò**, G. Fredi, S. Dirè, E. Callone, A. Dorigato, L. Giannini, S. Guerra, S. Mostoni, B. Di Credico, R. Scotti, Al₂O₃ decorated with polyhedral silsesquioxane units: An unconventional filler system for upgrading thermal conductivity and mechanical properties of rubber composites. **Composites Science and Technology** 236 (2023) 109977. DOI: 10.1016/j.compscitech.2023.109977.
- 12) L. Lavagna, **R. Nisticò**, An Insight into the chemistry of cement—A review. **Applied Sciences** 13 (2023) 203. DOI: 10.3390/app13010203.
- 13) S.F. Orsini, L. Cipolla, S. Petroni, S. Dirè, R. Ceccato, E. Callone, R. Bongiovanni, S. Dalle Vacche, B. Di Credico, S. Mostoni, **R. Nisticò**, L. Raimondo, R. Scotti, M. D'Arienzo, Synthesis and characterization of alkoxy silane-bearing photoreversible cinnamic side groups: A promising building-block for the design of multifunctional silica nanoparticles. **Langmuir** 38 (2022) 15662-15671. DOI: 10.1021/acs.langmuir.2c02472.
- 14) **R. Nisticò**, M. D'Arienzo, B. Di Credico, S. Mostoni, R. Scotti, The role of inorganic fillers in electrostatic discharge composites. **Inorganics** 10 (2022) 222. DOI: 10.3390/inorganics10120222.

- 15) **R. Nisticò**, A comprehensive study on the applications of clays into advanced technologies, with particular attention on biomedicine and environmental remediation. **Inorganics** 10 (2022) 40. DOI: 10.3390/inorganics10030040.
- 16) F. Caldera, **R. Nisticò**, G. Magnacca, A. Matencio, Y.K. Monfared, **F. Trotta**, Magnetic composites of dextrin-based carbonate nanosponges and iron oxide nanoparticles with potential application in targeted drug delivery. **Nanomaterials** 12 (2022) 754. DOI: 10.3390/nano12050754.
- 17) **R. Nisticò**, **L. Lavagna**, E. Aimo Boot, P. Ivanchenko, M. Lorusso, F. Bosia, N.M. Pugno, D. D'Angelo, M. Pavese, Improving rubber concrete strength and toughness by plasma-induced end-of-life tire rubber surface modification. **Plasma Processes and Polymers** 18 (2021) 2100081. DOI: 10.1002/ppap.202100081.
- 18) M.L. Tummino, **R. Nisticò**, F. Franzoso, A. Bianco Prevot, P. Calza, E. Laurenti, M.C. Paganini, D. Scalarone, **G. Magnacca**, The "Lab4treat" outreach experience: Preparation of sustainable magnetic nanomaterials for remediation of model wastewater. **Molecules** 26 (2021) 3361. DOI: 10.3390/molecules26113361.
- 19) **L. Lavagna**, **R. Nisticò**, S. Musso, M. Pavese, Functionalization as a way to enhance dispersion of carbon nanotubes in matrices: a review. **Materials Today Chemistry** 20 (2021) 100477. DOI: 10.1016/j.mtchem.2021.100477.
- 20) **M.L. Tummino**, **R. Nisticò**, C. Riedo, D. Fabbri, M. Cerruti, **G. Magnacca**, Waste cleaning waste: Combining alginate with biowaste-derived substances in hydrogels and films for water cleanup. **Chemistry – A European Journal** 27 (2021) 660-668. DOI: 10.1002/chem.202003250.
- 21) I. Corazzari, F. Turci, **R. Nisticò**, TGA coupled with FTIR gas analysis to quantify the vinyl alcohol unit content in ethylene-vinyl alcohol copolymer. **Materials Letters** 284 (2021) 129030. DOI: 10.1016/j.matlet.2020.129030.
- 22) **R. Nisticò**, Zirconium oxide and the crystallinity hallows. **Journal of the Australian Ceramic Society** 57 (2021) 225-236. DOI: 10.1007/s41779-020-00529-2.
- 23) **R. Nisticò**, A synthetic guide toward the tailored production of magnetic iron oxide nanoparticles. **Boletín de la Sociedad Espanola de Ceramica y Vidrio** 60 (2021) 29-40. DOI: 10.1016/j.bsecv.2020.01.011.
- 24) D. Suarez-Riera, A. Merlo, **L. Lavagna**, **R. Nisticò**, M. Pavese, Mechanical properties of mortar containing recycled *Acanthocardia tuberculata* seashells as aggregate partial replacement. **Boletín de la Sociedad Espanola de Ceramica y Vidrio** 60 (2021) 206-210. DOI: 10.1016/j.bsecv.2020.03.011.
- 25) **R. Nisticò**, Polyethylene terephthalate (PET) in the packaging industry. **Polymer Testing** 90 (2020) 106707. DOI: 10.1016/j.polymertesting.2020.106707.
- 26) **R. Nisticò**, F. Guerretta, P. Benzi, G. Magnacca, Chitosan-derived biochars obtained at low pyrolysis temperatures for potential application in electrochemical energy storage devices. **International Journal of Biological Macromolecules** 164 (2020) 1825-1831. DOI: 10.1016/j.ijbiomac.2020.08.017.
- 27) **L. Lavagna**, D. Burlon, **R. Nisticò**, V. Brancato, A. Frazzica, M. Pavese, **E. Chiavazzo**, Cementitious composite materials for thermal energy storage applications: a preliminary characterization and theoretical analysis. **Scientific Reports** 10 (2020) 12833. DOI: 10.1038/s41598-020-69502-0.
- 28) **L. Lavagna**, S. Marchisio, A. Merlo, **R. Nisticò**, M. Pavese, Poyvinyl butyral-based composites with carbon nanotubes: Efficient dispersion as a key to high mechanical properties. **Polymer Composites** 41 (2020) 3627-3637. DOI: 10.1002/pc.25661.
- 29) **R. Nisticò**, **L. Lavagna**, D. Versaci, P. Ivanchenko, P. Benzi, Chitosan and its char as fillers in cement-base composites: A case study. **Boletín de la Sociedad Espanola de Ceramica y Vidrio** 59 (2020) 186-192. DOI: 10.1016/j.bsecv.2019.10.002.
- 30) **L. Lavagna**, **R. Nisticò**, M. Sarasso, M. Pavese, An analytical mini-review on the compression strength of rubberized concrete as a function of the amount of recycled tires crumb rubber. **Materials** 13 (2020) 1234. DOI: 10.3390/ma13051234.
- 31) M.L. Tummino, G. Magnacca, D. Cimino, E. Laurenti, **R. Nisticò**, The innovation comes from the sea: Chitosan and alginate hybrid gels and films as sustainable materials for wastewater remediation. **International Journal of Molecular Sciences** 21 (2020) 550. DOI: 10.3390/ijms21020550.

- 32) **R. Nisticò**, F. Cesano, F. Garello, Magnetic materials and systems: Domain structure visualization and other characterization techniques for the application in the materials science and biomedicine. **Inorganics** 8 (2020) 6. DOI: 10.3390/inorganics8010006.
- 33) S. Tabasso, M. Ginepro, L. Tomasso, E. Montoneri, **R. Nisticò**, M. Francavilla, Integrated biochemical and chemical processing of municipal bio-based waste to obtain bio based products for multiple uses. The case of soil remediation. **Journal of Cleaner Production** 245 (2020) 119191. DOI: 10.1016/j.jclepro.2019.119191.
- 34) M.E. Peralta, **R. Nisticò**, F. Franzoso, G. Magnacca, L. Fernandez, M.E. Parolo, E. Garcia Leon, L. Carlos, Highly efficient removal of heavy metals from waters by magnetic chitosan-based composite. **Adsorption** 25 (2019) 1337-1347. DOI: 10.1007/s10450-019-00096-4.
- 35) **R. Nisticò**, A. Bianco Prevot, G. Magnacca, L. Canone, S. Garcia-Ballesteros, A. Arques, Sustainable magnetic materials (from chitosan and municipal biowaste) for the removal of Diclofenac from water. **Nanomaterials** 9 (2019) 1091. DOI: 10.3390/nano9081091.
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- I) **R. Nisticò**, H. Idriss, L. Carlos, E. Aneggi, T.R. Jensen, 10th Anniversary of *Inorganics*: Inorganics Materials. **Inorganics** 12 (2024) 62. DOI: 10.3390/inorganics12030062.
- II) **R. Nisticò**, *New Advances into Nanostructured Oxides*. **Inorganics** 11 (2023) 130. DOI: 10.3390/inorganics11030130.
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- I) **R. Nisticò**, H. Idriss, L. Carlos, E. Aneggi, T.R. Jensen, *10th Anniversary of Inorganics: Inorganics Materials*. Printed Edition of the Special Issue published in **Inorganics**, MDPI, Basel (Switzerland), 2024. ISBN: 978-3-7258-0407-8.
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- III) **R. Nisticò**, Valorization of agri-food waste and by-products: Shellfish, in: P. Ferranti, (Ed.), *Sustainable Food Science: A Comprehensive Approach*, Vol. 4, Elsevier Inc., Amsterdam (Netherlands), 2023, pp. 424-446. ISBN: 978-0-12-823960-5. DOI: 10.1016/B978-0-12-823960-5.00082-2.
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- V) A. Bianco Prevot, A. Arques, L. Carlos, E. Laurenti, G. Magnacca, **R. Nisticò**, Innovative sustainable materials for the photoinduced remediation of polluted water, Chapter 7, in: C.M. Galanakis, E. Agrafioti, (Eds.), *Sustainable Water and Wastewater Processes*, Elsevier Inc., Amsterdam (Netherlands), 2019, pp. 203-238. ISBN: 978-0-12-816170-8. DOI: 10.1016/B978-0-12-816170-8.00007-7.

ORGANIZATION OF SCIENTIFIC CONGRESSES/SEMINARS/EVENTS

- I) Organization of the seminar “*Magnetic nanomaterials for water treatment*” by Dr. Luciano Carlos (*Instituto de Investigación y Desarrollo en Ingeniería de Procesos, Biotecnología y Energías Alternativas, PROBIEN (CONICET-UNCo), Universidad Nacional Del Comahue, Neuquén, Argentina*) at the Department of Materials Science of the University of Milano-Bicocca (24 May 2024).
- II) Co-chairman during *EMRS 2024 Spring Meeting, F. Advanced and sustainable coatings for high performance textiles*, Strasbourg (France). Session: *F03_Technical textiles* (30 May 2024).

INVITED COMMUNICATIONS AT CONFERENCES, WORKSHOPS AND SEMINARS

- I) **R. Nisticò**, M. Colombo, M. D’Arienzo, G. Magnacca, M.G. Faga, M. Zappalorto, G. Fredi, P. Rivolo, B. Di Credico, S. Mostoni, R. Scotti, The importance of the surface functionalisation in textiles to create smart technological solutions (F02_00523), In: *EMRS 2024 Spring Meeting, F. Advanced and sustainable coatings for high performance textiles*, Strasbourg (France) 29 May 2024. Oral (Invited, ENG).
- II) **R. Nisticò**, 50 shades of magnetism: Basic and new trends, In: *Mat4treat Winter School Innovative approaches for material synthesis and characterization*, Torino (Italy) 26 January 2017. Oral (Invited lecture, ENG).
- III) **R. Nisticò**, F. Franzoso, F. Cesano, D. Scarano, G. Magnacca, M.E. Parolo, L. Carlos, Chitosan and chitosan-derived carbon as magnet-sensitive materials for the removal of polycyclic aromatic hydrocarbons, In: *International Workshop on Materials for photocatalytic and water treatment applications*, Torino (Italy) 11 July 2016. Oral (Invited, ENG).
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- V) **R. Nisticò**, Preparation and physico-chemical characterization of ordered large-pore silica films for membranes applications, In: *NIS Colloquium Porous Materials for Selective Separation and Controlled Transport: from Membranes to Nanoparticles*, Torino (Italy), 9 May 2014. Oral (Invited, ENG).

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- I) **R. Nisticò**, M.V. Dozzi, L. Mino, L. Vigni, M. Longhi, M. Cantoni, R. Mantovan, S. Mostoni, R. Scotti, Design of Cu-based electro-catalysts for renewable fuels production through CO₂ reduction (INO-OR-003), In: *XXVIII National Congress of the SCI - Congresso Nazionale della SCI*, Milano (Italy) 26-30 August 2024. Oral (ENG).
- II) **R. Nisticò**, M. D’Arienzo, A. Amighini Alerhush, L. Mirizzi, S. Diré, G. Fredi, A. Dorigato, E. Callone, S. Mostoni, B. Di Credico, R. Scotti, Alumina-based fillers functionalized with polyhedral silsesquioxane units for enhancing the thermal conductivity of polymeric nanocomposites (P49), In: *XIV International School of Organometallic Chemistry*, Camerino (Italy) 7-11 September 2023. Flash Communication (ENG).
- III) **R. Nisticò**, G. Magnacca, A. Bianco Prevot, Hybrid magnetic systems for the environmental remediation of wastewater (OC29A), In: *XLVIII Italian Conference of Inorganic Chemistry – Congresso Nazionale della Divisione di Chimica Inorganica della SCI*, Pisa (Italy) 6-9 September 2022. Oral (ENG).
- IV) **R. Nisticò**, Hybrid inorganic-organic magnetic systems for environmental applications, In: *Friday Materials Science Colloquia*, Milano (Italy), 1 July 2022. Oral (ENG).
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- VI) **R. Nisticò**, G. Magnacca, M. Antonietti, N. Fechner, Salts as structure-directing agents: The hypersaline chemistry of aerogels, In: *International Seminal on Aerogels 2014: Properties-Manufacture-Applications*, Hamburg (Germany), 6-7 October 2014. Oral (ENG).
- VII) **R. Nisticò**, A. Rosellini, P. Avetta, M.G. Faga, R. Lamberti, S. Martorana, D. D'Angelo, P. Rivolo, D. Fabbri, G. Magnacca, Nuove frontiere in ernioplastica: Sviluppo di coating antibatterici e adesivi su reti a base PP, In: *XXI Convegno Nazionale dell'Associazione Italiana di Scienza e Tecnologia delle Macromolecole, Macrogiovani 2014*, Torino (Italy), 16 September 2014. Oral (IT).

CONTRIBUTIONS PRESENTED BY RN'S COLLEAGUES

- I) M. Colombo, M. Hernandez-Santana, S. Mostoni, B. Di Credico, **R. Nisticò**, R. Scotti, G. Fredi, A. Dorigato, M. D'Arienzo, MWCNTs/ZnO hybrid filler for application in polymer composites with sensing and self-healing properties, In: *9th International Conference on Self-Healing Materials (ICSHM2024)*, Madrid (Spain). 25 June 2024. Oral (co-author, ENG).
- II) I. Tagliaro, V. Radice, **R. Nisticò**, C. Antonini, Chitosan electrolyte hydrogel for low ice adhesion material (M04_00955), In: *EMRS 2024 Spring Meeting, M. Materials technologies for controlling liquid-surface interactions from wetting to icing*, Strasburg (France) 27 May 2024. Oral (co-author, ENG).
- III) I. Tagliaro, M. Mariani, R. Akbari, M. Contardi, F. Saliu, **R. Nisticò**, C. Antonini, Superhydrophobic textiles with a PFAS-free chitosan-based coating (F07_00965), In: *EMRS 2024 Spring Meeting, F. Advanced and sustainable coatings for high performance textiles*, Strasburg (France) 31 May 2024. Oral (co-author, ENG).
- IV) L. Viganò, M. D'Arienzo, S. Mostoni, **R. Nisticò**, R. Scotti, B. Di Credico, Integrated photocatalyst adsorbents based on silica/silicate-supported TiO₂ for wastewater treatment (F03_503), In: *E-MRS Fall Meeting 2023*, Varsavia (Poland) 18-21 September 2023. Oral (co-author, ENG).
- V) L. Viganò, M. D'Arienzo, S. Mostoni, **R. Nisticò**, R. Scotti, B. Di Credico, Adsorbent-photocatalytic multifunctional materials for wastewater treatment (OC31), In: *XIII Congresso Nazionale AICIng e II Congresso Nazionale della Divisione di Chimica per le Tecnologie della SCI*, Milano (Italy) 25-28 June 2023. Oral (co-author ENG).
- VI) D. Montini, C. Cara, M. D'Arienzo, B. Di Credico, S. Mostoni, **R. Nisticò**, L. Pala, R. Scotti, Recovery and reutilization of silica from waste of fluoro-derivatives industry (O17_4), In: *30 Years of INSTM: Past, Present and Future of the Consortium*, Bressanone (Italy) 22-25 January 2023. Oral (co-author, IT).
- VII) M. D'Arienzo, R. Scotti, B. Di Credico, S. Mostoni, **R. Nisticò**, A. Vedda, S. Dirè, F. Parrino, Playing with morphology and hybrid interfaces: An ambitious route for integrating oxide nanomaterials in applied technologies (KN2), In: *XLVIII Italian Conference of Inorganic Chemistry – Congresso Nazionale della Divisione di Chimica Inorganica della SCI*, Pisa (Italy) 6-9 September 2022. Oral (co-author, ENG).
- VIII) D. Burlon, **R. Nisticò**, L. Lavagna, M. Pavese, V. Brancato, A. Frazzica, E. Chiavazzo, Synthesis and characterization of cementitious composite materials for thermal storage applications, In: *Fifth International Symposium on Innovative Materials and Processes in Energy Systems, IMPRES2019*, Kanazawa (Japan) 20-23 October 2019. Oral (co-author, ENG).
- IX) C. Novara, G. Biasotto, **R. Nisticò**, A. Chiadò, N. Paccotti, M. Fontana, M. Armandi, M.A. Zaghete, F. Geobaldo, P. Rivolo, F. Giorgis, Porous plasmonic nanostructures for Surface Enhanced Raman Scattering: development of biosensing platforms, In: *Plasmonica 2018* (pp. 28), Firenze (Italy), 4-6 July 2018. Oral (co-author, ENG).
- X) L. Lavagna, **R. Nisticò**, A. Chiappone, S. Musso, M. Pavese, Cellulose functionalization: comparison between wet-chemistry hydrophobization vs. photopolymerization, In: *Merck & Elsevier Young Chemists Symposium*, Rimini (Italy) 19-21 November 2018. Oral (co-author, ENG).
- XI) D. Palma, A. Bianco Prevot, L. Celi, D. Fabbri, G. Magnacca, **R. Nisticò**, M. Brigante, G. Mailhot, New insights on the photodegradation of caffeine in the presence of bio-based substances; from homogeneous to heterogeneous process, In: *10th European meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA10)*, Almeria (Spain) 4-8 June 2018. Oral (co-author, ENG).

- XII) A. Bianco Prevot, F. Franzoso, G. Magnacca, **R. Nisticò**, L. Carlos, D.O. Martire, Urban biowaste derived substances as a tool for obtaining magnet-sensitive materials for caffeine photodegradation, In: *9th European meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA9)*, Strasbourg (France) 13-17 June 2016. Oral (co-author, ENG).
- XIII) D. Scalarone, **R. Nisticò**, P. Avetta, M. Lazzari, D. Fabbri, P. Calza, G. Magnacca, Un approccio supramolecolare per la fabbricazione di membrane polimeriche nano e isoporose a base di copolimeri a blocchi, In: *XXI Convegno Nazionale dell'Associazione Italiana di Scienza e Tecnologia delle Macromolecole*, Torino (Italy), 14-19 September 2014, Oral (co-author, IT).
- XIV) P. Avetta, P. Calza, D. Fabbri, **R. Nisticò**, G. Magnacca, D. Scalarone, Microfluidic device: Development and testing of oxidic materials, In: *XXIV Congresso della Divisione di Chimica Analitica*, Sestri Levante (Italy), 15-19 September 2013. Oral (co-author, ENG).

POSTERS

- i) F. Shafiq, D. Melotto, D. Valenzisi, M.V. Dozzi, L. Vigni, M. Longhi, L. Mino, R. Scotti, **R. Nisticò**, Cu oxides as catalysts for the electrochemical reduction of CO₂, In: *EMRS 2024 Fall Meeting*, Warsaw (Poland) 16-19 September 2024. Poster (ENG).
- ii) M. Colombo, M. D'Arienzo, M. Zappalorto, A. Pontefisso, **R. Nisticò**, R. Scotti, B. Di Credico, S. Mostoni, Glass fiber decorated with SiO₂ and reduced graphene oxide: a versatile system to simultaneously upgrade mechanical and electrical properties of GF reinforced polymer composites (60_827), In: *EMRS 2023 Fall Meeting*, Warsaw (Poland) 18-21 September 2023. Poster (ENG).
- iii) **R. Nisticò**, M. D'Arienzo, A. Amighini Alerhush, L. Mirizzi, S. Diré, G. Fredi, A. Dorigato, E. Callone, S. Mostoni, B. Di Credico, R. Scotti, Effect of the surface functionalization on alumina-based fillers for enhancing the thermal conductivity of polymeric nanocomposites (P56), In: *XLIX Italian Conference of Inorganic Chemistry – Congresso Nazionale della Divisione di Chimica Inorganica della SCI*, Perugia (Italy) 12-15 September 2023. Poster (ENG).
- iv) M. D'Arienzo, P. Mariani, S. Mascotto, S. Mostoni, L. Raimondo, A. Sassella, B. Di Credico, **R. Nisticò**, R. Scotti, EPR spectroscopy as an unconventional tool for monitoring the exsolution process in Cu-doped SrTiO₃ (P23), In: *XLIX Italian Conference of Inorganic Chemistry – Congresso Nazionale della Divisione di Chimica Inorganica della SCI*, Perugia (Italy) 12-15 September 2023. Poster (ENG).
- v) **R. Nisticò**, M. D'Arienzo, A. Amighini Alerhush, L. Mirizzi, S. Diré, G. Fredi, A. Dorigato, E. Callone, S. Mostoni, B. Di Credico, R. Scotti, Alumina-based fillers functionalized with polyhedral silsesquioxane units for enhancing the thermal conductivity of polymeric nanocomposites (P49), In: *XIV International School of Organometallic Chemistry*, Camerino (Italy) 7-11 September 2023. Poster (ENG).
- vi) S. Diré, D. Bugnotti, E. Callone, R. Ceccato, S. Petroni, L. Cipolla, R. Bongiovanni, S. Dalle Vacche, L.H. Esposito, A. Vitale, S.F. Orsini, B. Di Credico, S. Mostoni, **R. Nisticò**, R. Scotti, M. D'Arienzo, Biostar-Pack: preparation of starch nanocomposites towards the valorization of organic food waste for sustainable packaging (P16), In: *XIII Congresso Nazionale AICInG e II Congresso Nazionale della Divisione di Chimica per le Tecnologie della SCI*, Milano (Italy) 25-28 June 2023. Poster (ENG).
- vii) B. Di Credico, E. Manzini, M. D'Arienzo, S. Mostoni, **R. Nisticò**, R. Scotti, Design of advanced materials based on controlled functionalized silica nanoparticles (P.072), In: *12th International Colloids Conference*, Palma-Mallorca (Spain) 11-14 June 2023. Poster (ENG).
- viii) L. Viganò, M. D'Arienzo, S. Mostoni, **R. Nisticò**, R. Scotti, B. Di Credico, TiO₂ based multifunctional nanocomposites for wastewater treatment (P64), In: *30 Years of INSTM: Past, Present and Future of the Consortium*, Bressanone (Italy) 22-25 January 2023. Poster (IT).
- ix) E. Manzini, M. D'Arienzo, S. Mostoni, **R. Nisticò**, R. Scotti, B. Di Credico, Controlled functionalization approaches of silica nanoparticles for advanced materials (P20), In: *30 Years of INSTM: Past, Present and Future of the Consortium*, Bressanone (Italy) 22-25 January 2023. Poster (IT).
- x) S.F. Orsini, R. Bongiovanni, E. Callone, L.F. Cipolla, B. Di Credico, S. Diré, S. Mostoni, **R. Nisticò**, S. Petroni, R. Scotti, M. D'Arienzo, Decoration of silica and sepiolite surfaces with photoreversible coupling agent: A

- new route for producing multifunctional hybrid nanoparticles (P33), In: *XLVIII Italian Conference of Inorganic Chemistry – Congresso Nazionale della Divisione di Chimica Inorganica della SCI*, Pisa (Italy) 6-9 September 2022. Poster (ENG).
- xi) D. Montini, C. Cara, M. D'Arienzo, B. Di Credico, S. Mostoni, **R. Nisticò**, L. Pala, R. Scotti, Silica recovery from industrial waste for functional and structural applications (P29), In: *XLVIII Italian Conference of Inorganic Chemistry – Congresso Nazionale della Divisione di Chimica Inorganica della SCI*, Pisa (Italy) 6-9 September 2022. Poster (ENG).
- xii) A. Chiadò, C. Novara, N. Paccotti, P. Rivolo, G. Biasotto, **R. Nisticò**, G. Condorelli, V. de Franciscis, F. Geobaldo, F. Giorgis, Plasmonic Nanostructures integrated in microfluidic chips for the sensitive SERS detection of miRNAs, In: *7th International Symposium on Sensor Science* (pp. 139), Napoli (Italy) 9-11 May 2019. Poster (ENG).
- xiii) V. Polliotto, F.R. Pomilla, V. Maurino, A. Bianco Prevot, **R. Nisticò**, G. Magnacca, M.C. Paganini, L. Ponce Robles, S. Malato, L. Perez, Magnetic hybrid nanomaterials for the photodegradation of microcontaminants in aqueous environment, In: *10th European meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA10)*, Almeria (Spain) 4-8 June 2018. Poster (ENG).
- xiv) M. Sodano, M. Martin, C. Lerda, **R. Nisticò**, G. Magnacca, L. Celi, D. Said-Pullicino, Dissolved organic carbon retention by coprecipitation during the oxidation of ferrous iron (EGU2018-3906), In: *European Geoscience Union General Assembly*, Vienna (Austria) 8-13 April 2018. Poster (ENG).
- xv) F. Franzoso, **R. Nisticò**, F. Cesano, I. Corazzari, L. Carlos, D.O. Martire, D. Scarano, G. Magnacca, A. Bianco Prevot, Urban composted biowaste-based magnetic materials for environmental applications, In: *International Winter School "Molecules@Surfaces"*, Bardonecchia (Italy) 31 January - 5 February 2016. Poster (ENG).
- xvi) **R. Nisticò**, F. Barone, P. Rivolo, M.G. Faga, S. Martorana, G. Magnacca, Plasma-induced adhesive surface functionalization of polypropylene hernioplasty devices, In: *International Winter School "Molecules@Surfaces"*, Bardonecchia (Italy) 31 January - 5 February 2016. Poster (ENG).
- xvii) F. Franzoso, **R. Nisticò**, A. Bianco Prevot, S. Tabasso, G. Magnacca, Magnetic materials prepared from natural sources: synthesis, characterization and environmental applications, In: *14th European Conference on Organized Films ECOF-14*, Genova (Italy) 29 June-2 July 2015. Poster (ENG).
- xviii) P. Calza, P. Avetta, D. Fabbri, G. Magnacca, **R. Nisticò**, D. Scaralone, Development and testing of nanostructured porous materials for water treatment, In: *248th ACS National Meeting & Exposition, Chemistry & Global Stewardship, Division of Environmental Chemistry*, San Francisco (California, U.S.A.), 10-14 August 2014. Poster (ENG).
- xix) P. Avetta, **R. Nisticò**, P. Calza, G. Magnacca, D. Fabbri, D. Scaralone, Microfluidic device: development and testing of nanoporous membranes, In: *VII Giornate Italo-Francesi di Chimica 2014*, Torino (Italy), 5-6 May 2014. Poster (ENG).
- xx) **R. Nisticò**, D. Scaralone, G. Magnacca, Synthesis of mesoporous silica films by block copolymers micellization, In: *XLI Congresso Nazionale di Chimica Fisica*, Alessandria (Italy), 23-27 June 2013. Poster (ENG).
- xxi) **R. Nisticò**, G. Magnacca, D. Scaralone, Block copolymers micellization for the synthesis of mesoporous silicas: A sol-gel approach, In: *European Polymer Congress EPF 2013*, Pisa (Italy), 16-21 June 2013. Poster (ENG).
- xxii) **R. Nisticò**, G. Magnacca, M.G. Faga, G. Gautier, D. D'Angelo, R. Lamberti, S. Martorana, Physico-chemical characterization of functionalized polypropylene hernia-repair biomaterials, In: *European Polymer Congress EPF 2013*, Pisa (Italy), 16-21 June 2013. Poster (ENG).
- xxiii) **R. Nisticò**, D. Scaralone, G. Magnacca, Synthesis and physico-chemical characterization of porous silica membranes obtained by using PS-b-PEO block copolymers as soft-templating agents, In: *Third International Conference on Multifunctional, Hybrid and Nanomaterials 2013*, Sorrento (Italy), 3-7 March 2013. Poster (ENG).

- xxiv) R. Nisticò, D. Scaralone, G. Magnacca, Development of highly selective silica membranes obtained by using PS-b-PEO as templates, In: *ISMAC Workshop 2012 dedicated to Alberto Bognesi "Self-Assembled Functional Nanostructures: Material Tailoring for Electronics and Bio-Electronics"*, Milano (Italy), 15 November 2012. Poster (ENG).

PARTECIPATION TO HIGH-LEVEL (INTERNATIONAL SCHOOLS

- 1) *XIV International School of Organometallic Chemistry*, organized by the University of Camerino, Camerino (Italy) 7-11 September 2023 (ENG).
- 2) *High-level course "Apprendere ed insegnare nell'Higher Education"*, organized by Polytechnic Institute of Torino, Torino (Italy) 20 February – 20 June 2017 (IT).
- 3) *International Winter School "Molecules@Surfaces"*, organized by University of Torino, Bardonecchia (Italy), 31 January – 5 February 2016 (ENG).
- 4) *XXXV Convegno-Scuola AIM "Mario Farina": Caratterizzazione di materiali polimerici, Tecniche per polimeri in soluzione*, organized by Associazione Italiana di Scienza e Tecnologia delle Macromolecole, Gargnano (Italy), 19-23 May 2014 (IT).
- 5) *Scuola di Chemiometria*, organized by University of Genova, Genova (Italy), 21-24 January 2013 (IT).
- 6) *XXXIII Convegno-Scuola AIM "Mario Farina": Sintesi di materiali polimerici*, organized by Associazione Italiana di Scienza e Tecnologia delle Macromolecole, Gargnano (Italy), 21-25 May 2012 (IT).

SUPERVISED POSTDOCS AND RESEARCH FELLOWS LIST

- 1) Tatiana Rodriguez Flores (University of Milano-Bicocca).
Title: *Development of Fe-containing magnetic nanomaterials for the photo(electro)catalysis* (2024, *Ongoing*, ENG). Period: from 2024/06/01 to 2025/05/31 (12 months, *on going*)

SUPERVISED PHD STUDENTS LIST

- 1) Falak Shafiq (University of Milano-Bicocca). PhD Materials Science and Nanotechnology (ENG), 39th cycle.
Title: *Photo(Electro)catalysts for Renewable Fuels production (PERFECT)* (2024, ENG).
Period: from 2024/01/08 to 2027/01/07 (36 months, *on going*).
- 2) Haleema Khanzada (Kaunas University of Technology, Lithuania). *Erasmus+ Traineeship*.
Period: from 2024/01/08 to 2024/06/07 (5 months).

SUPERVISED STUDENTS LIST

- 1) Giovanni Codato (University of Milano-Bicocca). BSc Chemical Sciences and Technologies (IT).
Title: *Valutazione di un approccio metodologico per la caratterizzazione chimica e chimico-fisica del rifiuto con particolare riferimento alle matrici incognite solide (terreni e fanghi)* (2024, *on-going*, IT). Supervisor.
- 2) Federico Veronico (University of Milano-Bicocca). BSc Materials Science (IT).
Title: *Studio di materiali ibridi organico-inorganico per la produzione fotocatalitica di idrogeno* (2024, *on-going*, IT). Co-supervisor.
- 3) Jacopo Barbazza (University of Milano-Bicocca). BSc Materials Science (IT).
Title: *Caratterizzazione di nanoparticelle ibride Fe₃O₄/TiO₂ sensibilizzate a colorante per produzione fotocatalitica di H₂* (2024, *student's educational path not yet completed*, IT).
- 4) Gaia Maria Spinoni (University of Milano-Bicocca). BSc Chemical Sciences and Technologies (IT).
Title: *Valorizzazione di rifiuti e trasformazione in catalizzatori per la riduzione dell'ossigeno* (2024, IT). Co-supervisor.
- 5) Davide Melotto (University of Milano-Bicocca). BSc Chemical Sciences and Technologies (IT).
Title: *Sintesi attraverso metodi di "soft chemistry" di ossidi di Cu nanostrutturati per la catalisi* (2024, IT).
- 6) Daniele Valenzisi (University of Milano-Bicocca). BSc Chemical Sciences and Technologies (IT). Supervisor.
Title: *Sintesi e caratterizzazione di ferriti magnetiche a base Cu, Co, Ni, Zn, e sistemi misti per applicazione in ambito catalitico* (2024, IT). Supervisor.

- 7) Denise Pauline Bernardo (University of Milano-Bicocca / Katholieke Universiteit Leuven, Belgium). MSc Sustainable Materials (ENG).
Title: *Designing a new generation of high-performance building materials: Plasma functionalization of super insulative silica aerogels particles (2024, on going, ENG)*. UNIMIB Assessor.
- 8) Edoardo Caravà (University of Milano-Bicocca). BSc Chemical Sciences and Technologies (IT).
Title: *Analisi di controllo di matrici acquose (acque reflue) e valutazione degli esiti mediante approccio olistico alla stima dell'incertezza di misura secondo la Norma ISO 11352:2012 (2024, student's educational path not yet completed, IT)*. Supervisor.
- 9) Veronica Radice (University of Milano-Bicocca). MSc Materials Science (ENG).
Title: *Low ice adhesion properties of chitosan electrolyte hydrogel (2024, ENG)*. Co-supervisor.
- 10) Gabriele Bona (University of Milano-Bicocca). BSc Chemical Sciences and Technologies (IT).
Title: *Sintesi attraverso metodi di "soft chemistry" e caratterizzazione di nanoparticelle magnetiche a base di ossidi di ferro per applicazione nel risanamento ambientale (2023, IT)*. Supervisor.
- 11) Lorenzo Demuru (University of Milano-Bicocca). MSc Chemical Sciences and Technologies (IT).
Title: *Sintesi laser-assistita, caratterizzazione e ottimizzazione di nanoparticelle plasmoniche per la realizzazione di sensori ottici multicanale. (2023, IT)*. Supervisor.
- 12) Massimiliano Mariani (University of Milano-Bicocca). MSc Materials Science (ENG).
Title: *Polysaccharide-based materials and coatings (2023, ENG)*. Co-supervisor.
- 13) Sofia Faina (University of Milano-Bicocca). MSc Chemical Sciences and Technologies (IT).
Title: *Filler ibridi a base di allumina e sepiolite per applicazione in nanocomposti polimerici termicamente conduttivi e con proprietà di self-healing (2023, IT)*. Co-supervisor.
- 14) Alexia Micaela Schirripa (University of Milano-Bicocca). BSc Materials Science (IT).
Title: *Sintesi e caratterizzazione di sistemi a base di ZnO per applicazioni in vulcanizzazione (2023, IT)*. Co-supervisor.
- 15) Andreia Amighini Alerhush (University of Milano-Bicocca). BSc Materials Science (IT).
Title: *Filler ibridi a base di silice e allumina per applicazioni in nanocompositi polimerici termicamente conduttivi (2022, IT)*. Co-supervisor.
- 16) Davide Burlon (Polytechnic of Torino). MSc Energy and Nuclear Engineering (IT).
Title: *Cement-based composite materials for thermochemical heat storage (2018, ENG)*. Co-supervisor.
- 17) Davide Palma (University of Torino). MSc Environmental Chemistry (IT).
Title: *Fotodegradazione di caffeina in presenza di materiali ibridi magnetici contenenti sostanze organiche derivate da compost (2017, IT)*. Co-supervisor.
- 18) Federico Guerretta (University of Torino). MSc Clinical, Forensic Chemistry and Doping Control (IT).
Title: *Carboni da sostanze naturali a basso costo: Preparazione, caratterizzazione e applicazione (2016, IT)*. Co-supervisor.



**DEPARTMENT OF
MATERIALS SCIENCE**

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INSTITUTIONAL ROLES

- 1) Feb 2022-*today*. Member of the Laboratory and Timetable Committees of the BSc/MSc Chemical Sciences and Technologies (University of Milano-Bicocca).
- 2) Oct 2024-*today*. Member of the Research QA Group of the Department of Materials Science (University of Milano-Bicocca).

THIRD MISSION ACTIVITIES

- 1) Speaker during the on-line seminars' cycle "*Le frontiere della chimica - Seminari Hot-Topic 2024*", with the sponsorship of the Piano Nazionale Lauree Scientifiche (PLS) and the University of Milano-Bicocca, 15 April 2024. Title: *Design di nanomateriali magnetici per la purificazione di acque reflue contaminate* (IT).

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196. Dichiaro che quanto riportato nel presente Curriculum Vitae corrisponde a verità ai sensi del D.P.R. 445/2000.

Milano (MI), 02/12/2024

Dr. Roberto Nisticò, PhD