

CURRICULUM VITAE ANDREA BRIGLIADORI

PERSONAL INFORMATION

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WORK EXPERIENCES

29-12-2023-Present	Fixed-term researcher at the Institute of Science, Technology and Sustainability for Ceramics - National Research Council of Italy (CNR-ISSMC) of Faenza (RA), for the project PNRR PE0000021 "NEST - Network 4 Energy Sustainable Transition" Spoke 9. <i>Key personal for the development, synthesis and physical-chemical characterization of materials and nanomaterials for energy application as catalysts, solid oxide fuel cells, and hydrogen separation membranes.</i> Brigliadori Andrea - CNR-ISSMC
11/03/2025-27/05/2025	Academic tutor at Alma Mater Studiorum - University of Bologna for the Organic Chemistry (code 67062) course of the Bachelor's Degree Course in Chemistry and Technologies for the Environment and Materials (L-27), Faenza (Italy), contract 249459. Reference teacher: Prof. Mauro Comes Franchini. Hours: 30. https://www.unibo.it/sitoweb/andrea.brigliadori5
25/03/2024-14/05/2024	Academic tutor at Alma Mater Studiorum - University of Bologna for the Organic Chemistry (code 67062) course of the Bachelor's Degree Course in Chemistry and Technologies for the Environment and Materials (L-27), Faenza (Italy), contract 220803. Reference teacher: Prof. Mauro Comes Franchini. Hours: 30. https://www.unibo.it/sitoweb/andrea.brigliadori5
21/12/2020-21/12/2023	Research fellow at the Institute of Science, Technology and Sustainability for Ceramics - National Research Council of Italy (CNR-ISSMC) of Faenza (RA), under the supervision of Dr. Anna Luisa Costa, as winner of the ISTEC 073.20.03.13 call for the European project "ASINA - Anticipating Safety Issues at the Design Stage of NANO Product Development" within the European Program H2020-NMBP-TO-IND-2018-2020, TOPIC: NMBP-15-2019: Safe by design, from science to regulation: metrics and main sectors (RIA); GA Number: 862444, (CUP B54I20000560006). <i>Key personal for the synthesis, physical-chemical and functional characterization of nanomaterials (photoactive metal oxides and antimicrobial metallic nanoparticles) and their implementation and study into nano-enabled products.</i> https://www.istec.cnr.it/?team=brigliadori-andrea
30/05/2023-30/07/2023 20/08/2023-22/09/2023	Research period abroad – Leitat (Spain) at Leitat Technological Center, Barcellona, Spain, for a collaborative research and internship in the field of nanotechnology and nanosafety, under the supervision of Dr. Socorro Vázquez-Campos, Area Manager in the Circular Economy Department and Group Leader of Human & Environmental Health & Safety at LEITAT Technological Center, in

	collaboration with CNR-ISSMC within the European Project ASINA (GA Number: 862444, NMBP-15-2019). CNR-ISSMC Prot. n. 0227954 of 21/07/2023 - UOR: 729. <i>Life cycle study of nanoparticles embedded in nanoenabled products, focus on: environmental release, dissolution and dermal contact pathways. ICP-MS, SEM and TEM.</i>
21/03/2023-16/05/2023	Academic tutor at Alma Mater Studiorum - University of Bologna for the Organic Chemistry (code 67062) course of the Bachelor's Degree Course in Chemistry and Technologies for the Environment and Materials (L-27), Faenza (Italy), contract 196523. Reference teacher: Prof. Mauro Comes Franchini. Hours: 10. https://www.unibo.it/sitoweb/andrea.brigliadori5
09/02/2023-16/02/2023	Academic tutor at Alma Mater Studiorum - University of Bologna for the Industrial Chemistry (code 67068) course of the Bachelor's Degree Course in Chemistry and Technologies for the Environment and Materials (L-27), Faenza (Italy), contract 196522. Reference teacher: Prof. Patricia Benito Martin. Hours: 10. https://www.unibo.it/sitoweb/andrea.brigliadori5
17/11/2022-12/01/2023	Academic tutor at Alma Mater Studiorum - University of Bologna for the General and Inorganic Chemistry (code 63708) course of the Bachelor's Degree Course in Chemistry and Technologies for the Environment and Materials (L-27), Faenza (Italy), contract 196521. Reference teacher: Prof. Maria Cristina Cassani. Hours: 10. https://www.unibo.it/sitoweb/andrea.brigliadori5
01/03/2022-10/05/2022	Academic tutor at Alma Mater Studiorum - University of Bologna for the Organic Chemistry (code 67062) course of the Bachelor's Degree Course in Chemistry and Technologies for the Environment and Materials (L-27), Faenza (Italy), contract 172073. Reference teacher: Prof. Daniele Nanni. Hours: 30. https://www.unibo.it/sitoweb/andrea.brigliadori5
16/12/2019-16/12/2020	Research fellow at the Institute of Science, Technology and Sustainability for Ceramics - National Research Council of Italy (CNR-ISSMC) of Faenza (RA), under the supervision of Dr. Magda Blosi, as winner of the ISTECS 073.19.03.14 call for the research project "EFFLICS - Eco Friendly FLuidICS for Fluid Power" within the program POR-FESR 2014-2020 Emilia-Romagna (CUP F48D18000090009) n. 18733 of 09/09/2019, prot. n. 1820. <i>Key personal for the development of nano-coated smart surfaces for mud removal, anti-icing properties and oil-water separation activities.</i> https://www.istec.cnr.it/?team=brigliadori-andrea
24/06/2013-26/07/2013	Laboratory technician internship at the Camlin Fine Science CFS Europe S.p.A. center of Ravenna under the supervision of Dr. Sauro Passeri. <i>Quality control analysis of reagents and products of hydroquinone and catechol production line.</i>

EDUCATION AND TRAINING

01/11/2020-31/01/2024	PhD in Material Science and Technology (XXXVI Cycle) at the Department of Chemistry, Life Sciences and Environmental Sustainability of the University of Parma in collaboration with the CNR-ISSMC, under the supervision of Prof. Enrico Dalcanale (University of Parma) and Dr. Magda Blosi (CNR-ISSMC). Certification of "Doctor Europaeus". Thesis' title: <u>Eco-design of advanced materials for the protection of the environment and human health</u> . Evaluation: Excellent. <i>The project is focused on the Safe and Sustainable approach applied to the synthesis of metallic and metal oxide nanoparticles and their implementation into nano-enabled products to be applied in human health and environment remediation fields. Key word: nanoparticles, antibacterial and antiviral activity, photodegradation, biopolymers.</i> https://scvsa-servizi.campusnet.unipr.it/do/docenti.pl/Alia?andrea.brigliadori#profilo Courses:
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	- Visible light promoted processes, 8 hours, Prof. Giovanni Maestri. - Technique for the analysis of nanostructure, amorphous and polycrystalline materials, 16 hours, Prof. Lara Righi. - Theory and practice of X ray diffraction spectroscopy for the characterization of materials, 16 hours, Prof. Luciano Marchiò, Prof. Chiara Massera and Prof. Francesco Mezzadri. - Electron microscopy technique for nanostructured materials, 16 hours, Dr. Laura Lazzarini. - Soft matter and interfaces, 24 hours, Prof. Luigi Cristofolini. - English for Academic Purposes, 36 hours, Dr. Colleen Mary Henshaw. - Introduction to instruments and methods for the scientific research, 27 hours, Prof. Stefano Caselli. Schools: - Aldo Armigliato SEM School in Material Science, 30 hours, organized by the CNR-IMM of Bologna, Dr. Vittorio Morandi and Dr. Regina Ciano. - Nanosafety Training School: Towards Safe and Sustainable by Design Advanced (Nano)materials, 32 hours, organized by the University of Venice and EU Horizon 2020 projects. - International School on Inorganic Materials (Synthesis, modelling and characterization), 24 hours, organized by the University of Turin, University of Padova and the Inorganic Chemistry Division of the Italian Chemical Society. Workshops: - General Aspects of Chemical Safety and Security in Laboratories, 14 hours, organized by the Organization for the Prohibition of Chemical Weapons. - Additive Manufacturing Applications and Innovations, Prof. Paula M. Vilarinho. - 1st ASINA project Stakeholder Workshop (European project ASINA “<i>Anticipating Safety Issues at the Design Stage of NAno Product Development</i>” N. 862444), 6 hours, organized by the CNR-ISSMC.
10/2021-06/2022	Piano Formativo PF24 at the University of Parma, exams: “Psicologia sociale”, “Elementi di pedagogia, pedagogia speciale e didattica dell’inclusione nelle scuole secondarie”, “Didattica della chimica”, and “Metodologie e tecnologie didattiche”.
10/2017-10/2019	Master’s Degree in Industrial Chemistry (LM-71) at Alma Mater Studiorum - University of Bologna (Italy), evaluation: 110/110 with honors. Thesis: Development of hybrid systems based on inorganic NPs and microalgae to apply in water remediation. Supervisor: Prof. Stefania Albonetti. Co-supervisor: Dr. Magda Blois and Dr. Ilaria Zanoni. Curricular internship at CNR-ISSMC 03/2019-09/2019, preparation of mixed materials based on titanium dioxide nanoparticles and <i>Chlorella vulgaris</i> microalgae for the remediation of industrial aqueous wastes. Characterizations: DLS, ELS, optical microscopy, UV-Vis, FTIR-ATR, ICP-OES, SEM-FEG, SEM-EDS and BET.
10/2014-10/2017	Bachelor's Degree in Chemistry and Technologies for the Environment and Materials, Curriculum: Traditional and Innovative Materials (L-27) at Alma Mater Studiorum - University of Bologna (Italy), evaluation 110/110 with honors. Thesis: Preparation of MgO/CaO-based nanostructured materials for catalytic applications. Supervisor: Prof. Stefania Albonetti. Co-supervisor: Dr. Magda Blois, Dr. Ilaria Zanoni and Dr. Simona Orrelli. Curricular internship at CNR-ISSMC 04/2017-09/2017, preparation of high surface area magnesium oxide and or calcium oxide nanostructured catalysts to be used in the biomass valorization sector. Characterizations: DLS, ELS, BET, SEM-FEG, SEM-EDS, TGA, DSC, XRD and HPLC.
09/2009-07/2014	Diploma in Industrial chemistry at the Istituto Tecnico Industriale Statale “Nullo Baldini” of Ravenna, evaluation 83/100. Thesis: Diphenol production.

SPECIFIC TECHNICAL SKILLS

Instrumentations, techniques and processes	Independent operator at CNR-ISSMC from 16/12/2019 for instruments, processes and characterization techniques such as: DLS/ELS, FEG-SEM and SEM-EDX, ATR-FTIR, UV-Vis, oven and furnaces for thermal treatment, exsolution process, presses, dip-coating, spray-freeze-drying process, lyophilization, co-precipitation and sol-gel synthesis, photocatalytic characterization and photodegradation test, wastewater pollutant adsorption studies. Good knowledge of other characterization techniques such as the following facilities in CNR-ISSMC: ICP-OES, XRD, TGA-DSC, BET, chromatography techniques (HPLC and GC) and electrochemical techniques (such as cyclic voltammetry).
Main activities	- Synthesis and physical-chemical characterization of electrocatalyst (mainly doped and exsolved perovskites and fluorites) for application in solid oxide cells, separation membranes, and clean energy catalytic processes. - Synthesis, physical-chemical and functional characterization of nano, composite and hybrid materials (mainly antimicrobial silver nanoparticles, catalytic noble metals nanoparticles and photoactive metal oxide nanoparticles). - Development of wastewater remediation systems exploiting adsorbent and photoactive materials (such as algal biomass, biopolymers, clays and layered doubled hydroxide for adsorption processes, and photoactive metal oxide for advanced oxidation processes). - Application of DoE (Design of Experiment) and MCDT (Multi Criteria Decision Tools) analysis and models.

INTERNATIONAL, NATIONAL AND INDUSTRIAL PROJECTS

International projects	- European project SUNSHINE "<i>Safe and Sustainable Design for Advanced Materials</i>" (N. 952924) (01/01/2021-31/12/2024), as <i>key personnel</i> and <i>scientific operator</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC for the implementation of Safe and Sustainable by Design strategies to nano-enabled industrial products. - European project ASINA "<i>Anticipating Safety Issues at the Design Stage of Nano Product Development</i>" (N. 862444) (01/03/2020-29/02/2024), prot. CNR-ISSMC 0002282/2020 of 04/11/2020, as <i>key personnel</i> and <i>scientific operator</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC for the synthesis, characterization, implementation into nano-enabled products and pilot-plants scale-up of antimicrobial, photoactive and cosmetics nanomaterials following a Safe by Design driven approach. - European project SABYNA "<i>Simple, robust and cost-effective approaches to guide industry in the development of safer nanomaterials and nano-enabled products</i>" (N. 862419) (01/03/2020-29/02/2024), prot. CNR-ISSMC 0002282/2020 of 04/11/2020, as <i>key personnel</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC. - European project NanoInformaTIX "<i>Development and Implementation of a Sustainable Modelling Platform for NanoInformatics</i>" (N. 814426) (01/01/2019-28/02/2023, active operator from 16/12/2019), prot. CNR-ISSMC 0002282/2020 of 04/11/2020, as <i>key personnel</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC. - European project PATROLS "<i>Physiologically Anchored Tools for Realistic nanomaterial hazard assessment</i>" (N.760813) (01/01/2018-30/09/2021, active operator from 16/12/2019), prot. CNR-ISSMC 0002282/2020 of 04/11/2020, as <i>key personnel</i> and <i>scientific operator</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC. - European project BIORIMA "<i>BIOmaterial Risk Management</i>" (N. 760928) (01/11/2017-31/12/2022, active operator from 16/12/2019), prot. CNR-ISSMC 0002282/2020 of 04/11/2020, as <i>key personnel</i> and <i>scientific operator</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC. - European project PROTECT "<i>Pre-commercial lines for production of surface nanostructured antimicrobial and anti-biofilm textiles, medical devices and water treatment membranes</i>" (N. 720851-2) (01/01/2017-30/06/2021, active operator from 16/12/2021), prot. CNR-ISSMC 0002282/2020 of 04/11/2020, as <i>key personnel</i>
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National projects	for and <i>scientific operator</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC. - NEST, PNRR PE0000021 “NEST – <i>Network 4 Energy Sustainable Transition</i>” Spoke 9 (from December 2023), as <i>key personnel</i> at the Energy and Mechatronic group at CNR-ISSMC. - Ecosister, PNRR Mission 4, Innovation and Research Program - code ECS00000033 entitled “<i>Ecosystem for Sustainable Transition in Emilia-Romagna</i>” Spoke 3 “<i>Green manufacturing for a sustainable economy</i>” and 5 “<i>Circular economy and Blue economy</i>” (from 2022), as <i>key personnel</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC. - SanoSIL “<i>Sustainable Nanosilver Design as Prime Defence Against Bacterial Colonisations and Virus Propagation</i>” (02/2022-02/2024), as <i>key personnel</i> and <i>scientific operator</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC for the synthesis of safe antimicrobial silver nanoparticles. - SAFE-ACT “<i>Safe, Sustainable and Active Coating for Banknotes (DCM.AD006.374)</i>” (14 months 2021-2022), as <i>key personnel</i> and <i>scientific operator</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC for the design and implementation of multifunctional coatings. - SOS-ACQUA “<i>System for decontamination and development of energy from water</i>” funded by the Italian Ministry of Defence (01/2020-01/2022), prot. ISTEC-CNR 0002282/2020 of 04/11/2020, as <i>key personnel</i> and <i>scientific operator</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC for the remediation of wastewater combining photoactive and adsorbent materials.
Industrial research contracts	- “<i>Development of multifunctional surface coatings for filter media to be applied in the mud filtering sector, anti-icing applications, and oil/water separation</i>” (from 12/2019), as <i>key personnel</i> and <i>scientific operator</i> at the Nanotechnology and Nanosafety group at CNR-ISSMC, within the contract (CO-2018/09) with Aqseptence Group S.r.l.. Prot. ISTEC-CNR 0002282/2020 of 04/11/2020.

ROLES OF RESPONSIBILITY

- Instrument contractor in the Nanotechnology and Nanosafety Laboratory (Lab. n. 16) of the CNR-ISSMC: Laboratory Ultracentrifuge (OPTIMA MAX-XP Beckman Coulter), instrument sheet SS-L16-25 from 04/2023.
- Member of the Industrial Chemistry Division of the Italian Chemical Society from 01/2022.
- Member of the group of early career researchers belonging to the European project ASINA “*Anticipating Safety Issues at the Design Stage of NANO Product Development*” N. 862444 (approx. 20 participants, from 09/2020).

RECOGNITIONS

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| Prizes | <ul style="list-style-type: none"> - Best Master’s Thesis in the field of Industrial Chemistry 2021 Edition (07/2021) provided from the Industrial Chemistry Division of the Italian Chemical Society. Thesis: Development of hybrid systems based on inorganic NPs and microalgae to apply in water remediation. Master’s Degree in Industrial Chemistry (LM-71) at Alma Mater Studiorum - University of Bologna (Italy) in collaboration with the CNR-ISSMC. Supervisor: Prof. Stefania Albonetti. Co-supervisor: Dr. Magda Blois and Dr. Ilaria Zaroni. - Scholarship for the best students of the Bachelor's Degree in Chemistry and Technologies for the Environment and Materials (L-27) at Alma Mater Studiorum - University of Bologna (Italy). (2016). - Scholarship for the best students of the Bachelor's Degree in Chemistry and Technologies for the Environment and Materials (L-27) at Alma Mater Studiorum - University of Bologna (Italy). (2015). |
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PUBLICATIONS

International journal
h-index (Scopus): 4
Citations (2025): 67 (59)
Scopus Author profile

1. "Development of a nickel-based catalyst for syngas production via tri-reforming of biogas", **A. Brigliadori**, F. Suzzi, A. Bartoletti, E. Mercadelli, D. Gardini, E. Orfei, A. Fasolini, J. De Maron, F. Basile, A. Gondolini, A. Sanson, International Journal of Hydrogen Energy, Volume 168, 2025, 150939. **IF₂₀₂₅: 8.3**.
2. "The fruits of data shepherding: A collection of open FAIR datasets for titanium dioxide coated photocatalytic surfaces", I. Furxhi, M. Perucca, G. Baldi, V. Dami, A. Cioni, A. J. Koivisto, R. Bengalli, P. Mantecca, G. Motta, M. Carriere, O. Kose, A. Nicosia, F. Ravagnani, D. Burrueco-Subirà, A. Candalija, J. Cabellos, S. Vazquez-Campos, E. Lahive, E. Eagles, J. M. L. de Ipiña, J. Oliveira, P. Conin, I. Zanoni, **A. Brigliadori**, L. Faccani, T. Syed, E. U. Haq, C. O'Mahony, M. Serantoni, M. Blosi, T. Exner, A. Costa, NanoImpact, Volume 39, 2025, 100583. **IF₂₀₂₅: 5.5**.
3. "Hybrid Materials for Wastewater Treatment: Synergistic Coupling of Neochloris oleoabundans and TiO₂ Nanoparticles", I. Zanoni, S. Amadori, **A. Brigliadori**, A. L. Costa, S. Ortelli, P. Giacob, C. Baldisserotto, S. Pancaldi, M. Blosi, Nanoscale Adv., 2025, 7, 3803-3816. **IF₂₀₂₅: 4.6**.
4. "Tuning the properties and thermal treatment of Aquivion®/oxide hybrid catalysts for the one-pot production of γ -valerolactone from furfuryl alcohol", M. Offidani, A. Allegri, A. Saotta, F. Liuzzi, A. S. Cattaneo, C. Oldani, **A. Brigliadori**, S. Ortelli, G. Fornasari, S. Albonetti, N. Dimitratos, Applied Catalysis A: General, Volume 704, 2025, 120420. **IF₂₀₂₅: 4.8**.
5. "Re-designing nano-silver technology exploiting one-pot hydroxyethyl cellulose-driven green synthesis", M. Blosi, **A. Brigliadori**, S. Ortelli, I. Zanoni, D. Gardini, C. Vineis, A. Varesano, B. Ballarin, M. Perucca, and A. L. Costa, Front. Chem., 2024, 12:1432546. **IF₂₀₂₃: 3.8**.
6. "Exposure assessment and risk associated with wearing silver nanoparticle-coated textiles", A. J. Koivisto, D. Burrueco-Subirà, A. Candalija, S. Vázquez-Campos, A. Nicosia, F. Ravagnani, I. Furxhi, **A. Brigliadori**, I. Zanoni, M. Blosi, A. Costa, F. Belosi, J. L. de Ipiña, Open Reaserch Europe, 2024, 4:100.
7. "Aquivion-Based Spray Freeze-Dried Composite Materials for the Cascade Production of γ -Valerolactone", A. Allegri, A. Saotta, F. Liuzzi, E. Gianotti, G. Paul, A. S. Cattaneo, C. Oldani, **A. Brigliadori**, I. Zanoni, G. Fornasari, N. Dimitratos, S. Albonetti, ChemSusChem, 2024. **IF₂₀₂₂: 8.4**.
8. "Design rules applied to silver nanoparticles synthesis: A practical example of machine learning application.", I. Furxhi, L. Faccani, I. Zanoni, **A. Brigliadori**, M. Vespignani, A.L. Costa, Computational and structural Biotechnology Journal, 2024, 25, 20-33. **IF₂₀₂₂: 6.0**.
9. "Preliminary Toxicological Analysis in a Safe-by-Design and Adverse Outcome Pathway-Driven Approach on Different Silver Nanoparticles: Assessment of Acute Responses in A549 Cells", G. Motta, M. Gualtieri, M. Saibene, R. Bengalli, **A. Brigliadori**, M. Carrière and P. Mantecca, Toxics, 2023, 11, 195. **IF₂₀₂₃: 3.9**.
10. "Eco design for Ag-based solutions against SARS-CoV-2 and E. coli", A. L. Costa, M. Blosi, **A. Brigliadori**, I. Zanoni, S. Ortelli, F. C. Simeone, S. Delbue, S. D'Alessandro, S. Parapini, C. Vineis, A. Varesano, M. S. Toprak, B. Hamawandi and D. Gardini, Environ. Sci.: Nano, 2022, 9, 4295-4304. **IF₂₀₂₃: 5.8**.
11. "Chlorella vulgaris meets TiO₂ NPs: Effective sorbent/photocatalytic hybrid materials for water treatment application", M. Blosi, **A. Brigliadori**, I. Zanoni, S. Ortelli, S. Albonetti and A. L. Costa, J. Environ. Manage., 2022, 304, 114187. **IF₂₀₂₃: 8.0**.

National journal

1. "Nano-bio materiali ibridi per il risanamento acque", **A. Brigliadori**, M. Blosi, I. Zanoni, S. Ortelli, S. Albonetti and A. L. Costa, La Chimica e L'industria, 2022, 2, 62.

TECHNICAL REPORTS

1. Technical report RT-2023/10 within the project SAFE-ACT "*Safe, Sustainable and Active Coating for Banknotes (DCM.AD006.374)*" (CO 2021/03) of 08/03/2023. ISSMC-CNR Prot. N. 0069483 of 08/03/2023.

2. First Periodic Report of the project Ricerca@CNR "SanoSIL – Sustainable nanosilver design as prime defence against bacterial colonisations and virus propagation" Prot. N. 0113779 of 17/04/2023.
3. Technical report RT-2021/49 within the project SAFE-ACT "Safe, Sustainable and Active Coating for Banknotes (DCM.AD006.374)" (CO 2021/03) of 21/10/2021. ISTEC-CNR Prot. N. 0001987 of 22/10/2021.
4. Technical report RT-2021/05 within the industrial research project "Development of multifunctional surface coatings for filter media to be applied in the mud filtering sector, anti-icing applications, and oil/water separation" supplied by Aqseptence Group S.r.l. (CO 2018/09) of 28/01/2021.
5. Technical report RT-2021/02 within the project SOS-ACQUA "System for decontamination and development of energy from water" (CO 2020/04) of 01/15/2021. ISTEC-CNR Prot. N. 0000075 of 19/01/2021.
6. Technical report RT-2020/93 within the project SOS-ACQUA "System for decontamination and development of energy from water" (CO 2020/04) of 17/04/2020. Prot. ISTEC-CNR N. 0001960 of 06/10/2020.
7. Technical report RT-2020/09 within the project SOS-ACQUA "System for decontamination and development of energy from water" (CO 2020/04) of 28/09/2020. Prot. ISTEC-CNR N. 0001931 of 05/10/2020.
8. Technical report RT-2020/58 within the industrial research project "Development of multifunctional surface coatings for filter media to be applied in the mud filtering sector, anti-icing applications, and oil/water separation" supplied by Aqseptence Group S.r.l. (CO 2018/09) of 03/09/2020. ISTEC-CNR Prot. N. 0001599 of 03/09/2020.

PATENTS

1. "Piastre metalliche filtranti rivestite da nanorivestimenti multifunzionali", licensed by Johnson Screens, Inc, 1950 Old Highway 8 NW, New Brighton, MN 55112, EIN No. 33-0764792, 24/10/023. N. 102022000024981.

PRESENTATIONS

Oral

1. "SSbD Industrial Case Study: Anti-Stick Coatings for Aluminum Molds in Bakery Applications", M. Blosi, I. Zanoni, **A. Brioliadori**, S. Ortelli, A. L. Costa, M. J. Lopez Tendero, C. Silvestre, A. S. Lotina, M. Banares, A. Brunelli, E. Badetti, W. Peijnenburg, R. J. Vandebriel, A. Saccardo, S. Doak, C. Fito, E. Barbero Colmenar, H. Hong, B. Nowack, S. Devecchi, A. Livieri, L. Pizzol, and D. Hristozov, NanoTox 2024. **Co-Author**.
2. "Design of oxide-polymer hybrid materials with multifunctional properties for biomass valorisation and wastewater treatment", A. Allegri, C. Oldani, **A. Brioliadori**, M. Blosi, S. Ortelli, N. Dimitratos, A. L. Costa, G. Paul, E. Gianotti, G. Fornasari and S. Albonetti, EuropaCat2023 2023. **Co-Author**.
[Book of abstracts-EuropaCat2023.pdf](#)
3. "Aquivion® PFSA-based spray-freeze dried composite catalysts for the one-pot domino reaction from furfural to γ -valerolactone", A. Allegri, C. Oldani, A. Cattaneo, **A. Brioliadori**, I. Zanoni, G. Paul, E. Gianotti, G. Fornasari and S. Albonetti, PREPA13 2023. **Co-author**.
[PREPA13 - 13th International Symposium on Scientific Bases for the Preparation of Heterogeneous Catalysts](#)
4. "Implementation of design strategies to reach desired SSbD performance attributes: functional textile coatings case study", **A. Brioliadori**, M. Blosi, I. Zanoni, L. Faccani, S. Ortelli, C. Vineis, A. Varesano, V. Dami, G. Baldi, F. Belosi, J. Koivisto, D. Burrueco, J. Oliveira and A. L. Costa, nanoSAFE'23 2023. **Presenter**.
[NanoSafe 2023 Book-of-Abstracts.pdf](#)
5. "Design strategies supporting the developement of antiviral nano-Ag-based materials under a SSbD approach", M. Blosi, **A. Brioliadori**, I. Zanoni, S. Ortelli, S.

	Delbue, P. Blasi, R. Bengalli, P. Mantecca, M. Perucca, C. Vineis, A. Varesano, A. L. Costa, nanoSAFE'23 2023. Co-author. NanoSafe 2023 Book-of-Abstracts.pdf 6. "Sunshine industrial case study: SSbD alternatives as anti-stick coatings of aluminum trays and moulds for bakery applications", I. Zanoni, A. Brigliadori, S. Ortelli, A. L. Costa, M. L. Tendero, A. S. Lotina, M. Banares, A. Brunelli, E. Badetti, W. Peijnenburg, F. Murphy, H. Prima, A. Saccardo, L. Pizzol, A. Livieri and M. Blosi, nanoSAFE'23 2023. Co-author. NanoSafe 2023 Book-of-Abstracts.pdf 7. "Safe-and-Sustainable-by-design nano-manufacturing: the ASINA's roadmap to achieve the goal", S. Ortelli, M. Blosi, I. Furxhi, D. Gardini, M. Serantoni, F. C. Simeone, I. Zanoni, L. Faccani, A. Brigliadori, F. Belosi, A. Varesano, C. Vineis, A. L. Costa, International Conference of CNR, 2022. Co-Author. 8. "Chlorella vulgaris/TiO₂ NPs hybrid nanomaterials: new sustainable by design strategy for water treatment applications", A. Brigliadori, M. Blosi, I. Zanoni, S. Ortelli, S. Albonetti and A. L. Costa, Nano-week & NanoCommons Final Conference 2022. Presenter. https://www.nanocommons.eu/wp-content/uploads/2022/05/NanoWeek-NanoCommons-Final-Conference-2022-23-05-2022.pdf 9. "Safe and Sustainable by design alternatives applied to antiviral and antimicrobial nano-Ag technology", M. Blosi, A. Brigliadori, I. Zanoni, A. Varesano, C. Vineis, S. Delbue, S. Ortelli, D. Gardini and A. L. Costa, Nanoweeek & NanoCommons Final Conference 2022. Co-author. https://www.nanocommons.eu/wp-content/uploads/2022/05/NanoWeek-NanoCommons-Final-Conference-2022-23-05-2022.pdf 10. "Antibacterial stability tests of silver nanoparticles spray-coated textiles", A. Varesano, C. Vineis, A. L. Costa, M. Blosi, I. Zanoni, A. Brigliadori, M. Altin, Nano-week & NanoCommons Final Conference 2022. Co-author. https://www.nanocommons.eu/wp-content/uploads/2022/05/NanoWeek-NanoCommons-Final-Conference-2022-23-05-2022.pdf 11. "Aquivion® PFSA-based spray-freeze dried composite catalysts for the one-pot domino reaction from furfural to γ-valerolactone", A. Allegri, M. Offidani, C. Oldani, A. Cattaneo, A. Brigliadori, I. Zanoni, G. Fornasari and S. Albonetti, ISGC 2022. Co-author. 12. "Green synthesis of silver nanoparticles: antiviral and antibacterial nano-enabled products", A. Brigliadori, I. Zanoni, S. Ortelli, M. Blosi and A. L. Costa, InoMat 2021. Presenter. 13. "Aquivion® PFSA-based spray freeze dried composite materials for the conversion of furfuryl alcohol to levulinates", A. Allegri, M. Offidani, A. Brigliadori, I. Zanoni, G. Fornasari and S. Albonetti, MYCS 2021. Co-author. 14. "Aquivion® PFSA-based spray freeze dried composite materials for the conversion of furfuryl alcohol to levulinates", A. Allegri, M. Bersani, A. Brigliadori, I. Zanoni, G. Fornasari and S. Albonetti, XXVII SCI National Congress 2021. Co-author. http://sci2020.org/media/attachments/2021/12/17/sci_book-abstract_p2.pdf 15. "Nano-bio systems for water remediation", A. Brigliadori, M. Blosi, I. Zanoni, S. Ortelli, S. Albonetti and A. L. Costa, Student Speech Contest ICerS 2021. Presenter. 16. "Nano-bio systems for water remediation", A. Brigliadori, I. Zanoni, S. Ortelli, M. Blosi and A. L. Costa, International School of Chemistry 2020. Presenter.
Poster	1. "Cytotoxicity of curcumin decorated silver nanoparticles on human fibroblasts", L. Galassi, A. Brigliadori, K. K. Maina, I. Zanoni, S. Delbue, M. Blosi, and P. Blasi, National Congress SCI2024, 2024. Co-author. https://www.assotic.it/wp-content/uploads/2024/09/XXVIII-Congresso-Nazionale-SCI2024-Book-of-Abstract-volume-1.pdf 2. "Production of Semi-mobile Prototype for the Decontamination of Water from Organic and Inorganic Pollutants", I. Zanoni, A. Brigliadori, M. Serantoni, S. Ortelli, A. Crimaldi, L. Faccani, C. Baldisserri, M. Blosi, A. L. Costa, SETAC2024. Co-Author. 3. "Identifying and quantifying microfibres released from ASINA antibacterial nanoenabled products towards Safe-by-Design strategies along the use-phase", D.

Conference paper

- Burrueco-Subirà, **A. Brigliadori**, J. Oliveira, A. Candalija, C. Delpivo, S. Vázquez-Campos, A. L. Costa, SETAC2024. **Co-Author**.
- "SSbD strategies for the Laurentia case study materials", I. Zanoni, **A. Brigliadori**, S. Ortelli, A. L. Costa, M. L. Tendero, A. S. Lotina, M. Banares, A. Brunelli, E. Badetti, W. Peijnenburg, F. Murphy, H. Prima, A. Saccardo, L. Pizzol, A. Livieri and M. Blosi, EU project GA 2023. **Co-Author**.
 - "Safe-and-Sustainable-by-design nano-manufacturing: the ASINA roadmap to achieve the goal", S. Ortelli, M. Blosi, I. Furxhi, D. Gardini, M. Serantoni, F. C. Simeone, I. Zanoni, L. Faccani, **A. Brigliadori**, F. Belosi, A. Varesano, C. Vineis and A. L. Costa, DSCTM CNR 2022. **Co-author**.
 - "Development and engineering of hybrid systems based on inorganic nanoparticles and microalgae to be applied in wastewater remediation" **A. Brigliadori**, M. Blosi, I. Zanoni and S. Albonetti, XXVII SCI National Congress 2021. **Presenter**.
 - "SSbD Industrial Case Study: Sustainable Alternatives to Anti-Stick Coatings for Aluminum Molds in Bakery Application", M. Blosi, I. Zanoni, **A. Brigliadori**, S. Ortelli, A. L. Costa, M. Lopez Tendero, C. Silvestre, A. Serrano Lotina, M. Banares, A. Brunelli, E. Badetti, W. Peijnenburg, R. Vandebriel, C. Fito, E. Barbero Colmenar, A. Saccardo, S. Doak, H. Hong, B. Nowack, S. Devecchi, A. Livieri, L. Pizzol, D. Hristozov, NanoTox 2024, 2025. **Co-Author**.

TRAINING ACTIVITIES

Training and support to the research and scientific activities of Master's student in CNR-ISSMC.

Master's thesis co-supervisor (N° 5)

- 2023**, candidate Sara Amadori, "Development and engineering of multifunctional composite materials applicable in the abatement of pathogen microorganisms and water treatment", Master's Degree in Industrial Chemistry (LM-71) at Alma Mater Studiorum - University of Bologna (Italy).
- 2022**, candidate Isotta Bonvicini, "Microwave-assisted synthesis of Au/Pt nanoparticles for catalytic applications", Master's Degree in Industrial Chemistry (LM-71) at Alma Mater Studiorum - University of Bologna (Italy).
- 2021**, candidate Mariasole Biavati, "Optimisation of composite catalysts based on Aquivion PFSA and zirconia for the valorization of furfuryl alcohol to GVL", Master's Degree in Industrial Chemistry (LM-71) at Alma Mater Studiorum - University of Bologna (Italy).
- 2021**, candidate Michele Offidani, "Effect of the thermal treatment on Aquivion PFSA-based composite materials for the catalytic valorization of furfuryl alcohol to GVL", Master's Degree in Industrial Chemistry (LM-71) at Alma Mater Studiorum - University of Bologna (Italy).
- 2021**, candidate Manuel Bersani, "Development of composite materials based on Aquivion PFSA for the catalytic valorization of furfuryl alcohol to GVL", Master's Degree in Industrial Chemistry (LM-71) at Alma Mater Studiorum - University of Bologna (Italy).

Bachelor's thesis co-supervisor (N° 1)

- 2024**, candidate Martina Stasolla "Sviluppo di catalizzatori a base di nichel, depositati tramite tecnica di dip-coating su substrati porosi", Bachelor's Degree in Chemistry and technologies for the environment and materials (L-27) at Alma Mater Studiorum - University of Bologna (Italy).

SCIENTIFIC DISSEMINATION

- Actively involved during the Open Day (16/05/2024) of the CNR-ISSMC institute, Prot. n. 0175754 of 24/05/2024. Group guide for the 90 minutes tour of the laboratories.
- Actively involved in scientific dissemination to students during the opening days of the CNR-ISSMC of 30/03/2023, in collaboration with the Istituto Comprensivo San Rocco of Faenza (RA), Scuola Media Bendandi, Prot. n. 0092367 of 28/03/2023. 45 minutes guided visit of the Nanotechnology and Nanosafety Laboratory (Lab. n. 16 of the CNR-ISSMC).

- Actively involved in scientific dissemination to students during the opening days of the CNR-ISSMC of 23/03/2023, in collaboration with the Istituto Comprensivo San Rocco of Faenza (RA), Scuola Media Bendandi, Prot. n. 0084471 of 21/03/2023. 45 minutes guided visit of the Nanotechnology and Nanosafety Laboratory (Lab. n. 16 of the CNR-ISSMC).
- Actively involved in scientific dissemination to students during the opening days of the CNR-ISSMC of 05/05/2022, in collaboration with the Liceo Torricelli-Ballardini of Faenza (RA). 75 minutes guided visit of the Nanotechnology and Nanosafety Laboratory (Lab. n. 16 of the CNR-ISSMC).

PERSONAL SKILLS

Mother tongue	ITALIAN
Other languages	ENGLISH Reading Very good Writing Very good Speaking Very good SPANISH Reading Elementary Writing Elementary Speaking Elementary
Relational skills	Good communication skills developed during the national and international collaboration within research and industrial projects, the teaching activities to Bachelor's degree students and the dissemination activities for younger students. The experience in Barcelona, working in Leitat Technological Centre within the ASINA European Project program, helped improving team-building and networking skills. In addition, previous experiences as swimming teacher for kids attending the summer recreation center organized by Libertas Nuoto Ravenna A.S.D. improved transversal comprehension and communication.
Organizational skills	During the research fellow years, I was able to assist, coordinate and participate to several conference and teleconferences for the European projects ASINA and SUNSHINE, national projects SOS-ACQUA, SAFE-ACT, Ecosister and SanoSIL. Also, the possibility to be the main scientific operator for the contract (CO-2018/09) with Aqseptence Group S.r.l. helped to grow confidence and organization abilities.
Licenses	- Driving licenses: A and B. - "Training course on health and safety issues in the workplace for workers in CNR institutes (specific training)", organized by: CNR Prevention and Protection Unit (SPP-CNR) and CNR Training and Welfare Unit, event n. 2022/30 (021775/2022). - "Training course for workers of the CNR Institutes on the exposure risks of chemical, carcinogenic, mutagenic, and biological agents (specific training)", organized by: CNR Prevention and Protection Unit and CNR training and welfare unit, 2024 (7572031.7701569). - First aid training course taken during the Lifeguard training habilitation.