

**Allegato B**

**Irene Bavasso**  
**Curriculum Vitae**

Rome, Italy  
1/11/2024

**Part I – General Information**

Full Name	Irene Bavasso
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**Part II – Education**

Type	Year	Institution	Notes
PhD in Chemical Engineering	2018	Sapienza University of Rome - Department of Chemical Engineering Materials Environment	Dissertation: Microbial Fuel Cells for wastewater treatment: nitrogen cycle and new membrane materials
Master Degree in Chemical Engineering	2014	University of Calabria - Department of Chemical and Materials Engineering	
Bachelor Degree in Chemical Engineering	2011	University of Calabria - Department of Chemical and Materials Engineering	

**Part III – Appointments**

**IIIA – Academic Appointments**

Start	End	Institution	Position
27/11/2023	27/11/2034	Ministry of University and Research (MUR)	National Scientific qualification as Associate Professor in the Italian higher education system for the disciplinary field of 09/D1 – Materials Science and Technology (Academic Recruitment Field 09/D - Chemical and materials engineering, according to the national classification): GSD 09/D1 SSD ING-IND/22 – MATERIALS SCIENCE AND TECHNOLOGY (D.M. 855/2015), converted into GSD 09/IMAT-01 SSD IMAT-01/A MATERIALS SCIENCE AND TECHNOLOGY (D.M. n. 639/2024)
1/07/2022	30/06/2024	Sapienza University of Rome - Department of Chemical Engineering Materials Environment	Research Fellow GSD 09/D1 SSD ING-IND/22 (D.M. 855/2015), converted into GSD 09/IMAT-01

			SSD IMAT-01/A (D.M. n. 639/2024). Research title: additive manufacturing for lightweight joints.
1/07/2021	30/06/2022	Sapienza University of Rome - Department of Chemical Engineering Materials Environment	Research Fellow GSD 09/D1 SSD ING-IND/22 (D.M. 855/2015), converted into GSD 09/IMAT-01 SSD IMAT-01/A (D.M. n. 639/2024). Research title: Nanocomposite membrane as separator for electrochemical applications: synthesis, manufacture and durability evaluation.
1/07/2018	30/06/2021	Sapienza University of Rome - Department of Chemical Engineering Materials Environment	Research Fellow GSD 09/D1 SSD ING-IND/22 (D.M. 855/2015), converted into GSD 09/IMAT-01 SSD IMAT-01/A (D.M. n. 639/2024). Research title: Removal of Heavy Metals from wastewater using Iron-based nanoparticles stabilized with biopolymers.

### IIIB – Other Appointments

Start	End	Institution	Position
1/02/2018	30/06/2018	INSTM-National Interuniversity Consortium of Materials Science and Technology (INSTM), Department of Industrial and Civil Engineering, University of Pisa	<b>Research fellowship</b> for the project: “Nano-materials and composites for the extrusion of multilayer tubes for advanced applications related to environmental sustainability (NANOMATUBAM)”. Project co-financed under Tuscany POR FESR 2014-2020. GSD 09/D1 SSD ING-IND/22 (D.M. 855/2015), converted into GSD 09/IMAT-01 SSD IMAT-01/A (D.M. n. 639/2024)
13/07/2022	16/07/2022	AIMAT-Associazione Italiana di Ingegneria dei Materiali	<b>Member of the scientific secretariat</b> 21a Scuola AIMAT "I Materiali nella Transizione Energetica".
29/07/2022	present	Macromol (MDPI, Basel)	Member of the <b>editorial board</b> <a href="https://www.mdpi.com/journal/macromol/editors">https://www.mdpi.com/journal/macromol/editors</a>
5/12/2022	present	Advances in Materials Science and Engineering (Wiley, IF: 4.5)	Member of the <b>editorial board</b> <a href="https://onlinelibrary.wiley.com/page/journal/5928/homepage/editorial-board">https://onlinelibrary.wiley.com/page/journal/5928/homepage/editorial-board</a>

## Part IV – Teaching experience

Year	Institution	Lecture/Course
2024-present 2023-2024	Sapienza University of Rome- Rieti. <b>Bachelor's Degree</b> in Sustainable Building Engineering (L23, Code 30425)	Materials technology for sustainable construction (6 CFU; GSD 09/D1 SSD ING-IND/22 (D.M. 855/2015), converted into GSD 09/IMAT-01 SSD IMAT-01/A (D.M. n. 639/2024))
2022-2023 2021-2022 2020-2021	Sapienza University of Rome. <b>Master's Degree</b> in Chemical Engineering (LM22, Code 30426)	Water treatment and environmental technologies (3 CFU; GSD 09/D1 SSD ING-IND/22 (D.M. 855/2015), converted into GSD 09/IMAT-01 SSD IMAT-01/A (D.M. n. 639/2024))
2022	Baku Higher Oil School (Azerbaijan) <b>Advanced course</b>	Teaching appointment in the advanced course on “Environmental Remediation and Oil and Gas Sustainable Extraction” delivered as part of the Erasmus+ CBHE ITACA project. (609758-EPP-1-2019-1-IT-EPPKA2-CBHE-JP). Topics: modifications through green synthesis of metallic and polymeric materials for environmental applications (20 hours). GSD 09/D1 SSD ING-IND/22 (D.M. 855/2015), converted into GSD 09/IMAT-01 SSD IMAT-01/A (D.M. n. 639/2024)
2020-2021	Sapienza University of Rome – Department of Chemical Engineering Materials Environment. <b>PhD course</b> in Chemical Processes for Industry and Environment	<i>Polymeric membrane for environmental application: materials selection and optimization</i> , as part of the module “Polymeric materials for applications in electrochemistry, food and cultural heritage” (4 CFU, GSD 09/D1 SSD ING-IND/22 (D.M. 855/2015), converted into GSD 09/IMAT-01 SSD IMAT-01/A (D.M. n. 639/2024))
2019-2022	Sapienza University of Rome – Department of Chemical Engineering Materials Environment. <b>Teaching assistant</b>	Courses: <i>Materials Technology and Applied Chemistry (BENR) and Wastewater Treatment Processes (MCHR)</i> (GSD 09/D1 SSD ING-IND/22 (D.M. 855/2015), converted into GSD 09/IMAT-01 SSD IMAT-01/A (D.M. n. 639/2024))
2014-2024	Sapienza University of Rome – Department of Chemical Engineering Materials Environment. <b>Co-supervisor</b> of bachelor's and master's theses	Co-supervisor of 20 theses for chemical and energy engineering (GSD 09/D1 SSD ING-IND/22 (D.M. 855/2015), converted into GSD 09/IMAT-01 SSD IMAT-01/A (D.M. n. 639/2024))

## Part V - Society memberships, Awards and Honors

Year	Title
2021-present	Affiliation with the Italian Association of Materials Engineering (AIMAT)
2021-present	Affiliation with the National Interuniversity Consortium for Materials Science and Technology (INSTM)

2021-present	Affiliation with European Society for Composite Materials (ESCM)
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**Part VI – Results obtained by technology transfer [participation in the creation of spin-offs or start-ups, and in the development, use and transfer of patents]**

Year	Title
2018-present	Owner and affiliation with the Geotechnical and Environmental Engineering Group GEEG s.r.l., participation in the creation of the start-up of Sapienza University of Rome, Coordination and support for research and professional activities related to: i) materials for engineering applications (mechanical characterization and durability of two-component mortars, alkali-activated materials - AAM, geopolymers); ii) rheological and chemical-environmental characterization of bentonite slurries

**Part VII - Funding Information [grants as PI-principal investigator or I-investigator]**

Year	Title	Program	Role	Grant value
2022-2024	TARGET - additive manufacturing for lightweight joints	PRIN 2020, Sapienza University of Rome, Department of Chemical Engineering Materials Environment	I	
2023-2023	Optimization of biodegradable blends based on PLA, PBAT and PHBV and production of sustainable composites	Progetto Avvio alla Ricerca Tipo 2, funded by Sapienza University of Rome	PI	
2019-2022	MAMMA- Multiple Advanced Materials Manufactured by Additive technologies	PRIN 2017, Sapienza University of Rome, Department of Chemical Engineering Materials Environment	I	
2018-2022	AMICO- Additive Manufacturing and process automation for Hybrid and Composite materials	PON "Ricerca e Innovazione" 2014-2020, Sapienza University of Rome, Department of Chemical Engineering Materials Environment	I	
2018-2021	THALASSA- Technology and materials for safe low consumption and low life cycle cost vessels and crafts	PON Ricerca e Innovazione" 2014-2020, Sapienza University of Rome, Department of Chemical Engineering Materials Environment	I	
2021- 2023	New routes for carbon nanostructures growth with applications in structural composite materials and environmental remediation	Progetto Grande di Ateneo funded by Sapienza University of Rome	I	
2019-2020	Large-scale modification of electrospun veils by zinc oxide nanostructures for interlaminar	Progetto Avvio alla Ricerca Tipo 2, funded by Sapienza University of Rome	PI	

	reinforcement of structural component laminates			
2016-2017	Wastewater treatment using Microbial Fuel Cells (MFCs): nitrogen removal in wastewater characterized by nutrient imbalance	Progetto Avvio alla Ricerca Tipo 1, funded by Sapienza University of Rome	PI	

## Part VIII –Research Activities

### VIIIA- Research activity

Description of the research topics and findings presented as research papers (P) and as oral presentations during national and international conferences

Keywords	Brief Description
<b>1. 1. Biodegradable polymer and composites</b>	<p>The study and analysis of the mechanical and thermal performance of biobased and/or biodegradable pure polymers, such as polylactic acid (PLA), poly(butylene adipate-co-terephthalate) (PBAT), poly(3-hydroxybutyrate-co-3-hydroxyvalerate) (PHBV), and polybutylene succinate (PBS), are being investigated as potential alternatives to traditional fossil-based, non-biodegradable polymers. This research aims to optimize the thermo-mechanical properties of bio-based polymers in several areas.</p> <p>I) <i>Characterization of Polymer Properties</i>: the research focuses on the thermal, mechanical, morphological, and biodegradability characteristics of bio-based polymers formulated in blends without the use of compatibilizing agents, given the typically immiscible nature of polymer phases in such blends. Through this evaluation, the intrinsic properties and performance limits of these bio-based polymers in blended forms are assessed, providing insight into their potential applications and stability over time. Characterization of biopolymers produced from different raw materials (for example rice bran (<b>P5</b>)) as alternative green sources and the optimization of extrusion and injection molding processing conditions through the analysis of the number of extrusion steps, cylinder and mold temperatures, and injection pressure based on final mechanical properties.</p> <p>II) <i>Reprocessability and Recycling Assessment</i>: the study evaluates the reprocessability of both pure and blended polymers by analyzing the variations in their mechanical and thermal performance over multiple thermo-mechanical recycling cycles (e.g., extrusion and injection molding). This aspect of the research seeks to understand how these materials withstand repeated recycling, extending their life cycle and demonstrating their utility in post-consumer recycling applications (<b>P4</b>). Understanding the effects of multiple processing cycles on material integrity and performance could contribute to more sustainable polymer use and waste reduction in industry.</p> <p>III) <i>Enhancement of Thermo-Mechanical Performance through Lignocellulosic Reinforcements</i>: the research explores the incorporation of biodegradable lignocellulosic reinforcements—such as flax, jute, and lignocellulosic waste materials (<b>P2</b>) as fillers and as fabrics in the manufacture of biodegradable polymer composites and laminates. By</p>

	<p>employing these natural reinforcements, the study aims to improve the strength, thermal stability, durability and damage tolerance under low velocity impact conditions of bio-based polymers, enhancing their applicability in various structural and functional applications. It is also investigated the potential positive effects on interfacial adhesion between the filler and the polymer matrix, as well as the composite's rheological properties through chemical filler modifications. This approach leverages the environmental benefits of renewable, biodegradable reinforcements while contributing to the development of fully biodegradable composite materials.</p> <p>Oral presentation:</p> <ul style="list-style-type: none"> <li>• "30 years of INSTM: past, present and future of the Consortium", Bressanone. Title: "PLA/PBAT/FLAX biocomposites: the use of natural fabrics for the manufacture of sustainable and performant composite materials".</li> <li>• BIOpol 2022: 8th International Conference on Bio-based and Biodegradable Polymers", Alicante, Spain. Title: "Mechanical recycling of commercial biodegradable polymer blend: multiple melt processing and performance analysis".</li> <li>• "ICNF 2023- 6th International Conference on Natural Fibers", Funchal, Portugal. Title: "Flax/Biodegradable polymer composites: optimization of PLA/PBAT/PHBV ternary blend formulation and effect of the natural fibers on the composite properties".</li> <li>• "ICCM23: International Conference on Composite Materials", Belfast, Northern Ireland. Title: "Natural fabrics and biodegradable polymers for the manufacture of environmentally friendly composite materials".</li> <li>• ECCM21: 21st European Conference on Composite Materials for academia and industry", Nantes, France. Title: "Trade-off between performance and processability of PLA/PBAT/PHBV-Flax composites: effect of flax fibers surface modification".</li> </ul>
<b>1. 2. Eco-friendly polymer composites</b>	<p>The use of natural/waste fillers as reinforcing agents in thermoplastic polymer composites offers significant advantages, primarily through enhancing mechanical properties and reducing overall composite costs. The natural fillers, due to their inherently rigid structure, contribute to increased stiffness in the composite material, while potentially acting as nucleating agents that promote better polymer crystallinity and stability. Additionally, partial substitution of polymers with zero-cost reinforcements, such as agricultural (<b>P11</b>) and plant waste (<b>P7</b>) materials, presents an eco-friendly, cost-effective solution for composite manufacturing. This approach not only improves material performance but also reduces reliance on synthetic polymers, aligning with sustainable practices and reducing waste.</p> <p>Oral presentation:</p> <ul style="list-style-type: none"> <li>• M&amp;Ns-22 International conference on Materials and Nanomaterials", Rome. Title: "Bio waste fillers as reinforcing agents for eco-friendly polymer composites production".</li> <li>• XVI Convegno nazionale AIMAT 2021, Cagliari. Title: "Plant waste as green reinforcement for polymer composites and adsorbent material for wastewater decontamination: a case- study of Pteris</li> </ul>

	Vittata roots".
<b>3. Composite materials for advanced structural applications: improvement in interlaminar fracture resistance under low velocity impact tests</b>	<p>I) <i>Use of Thermoplastic Electrospun Polymer Veils in CFRPs</i>: this research explores the application of electrospun thermoplastic polymer veils within carbon fiber reinforced polymer (CFRP) composites (epoxy resin) to act as toughening agents within the interlaminar region. These veils aim to enhance composite toughness without adding extra weight or increasing the laminate's thickness, offering an efficient way to promote damage resistance. The research focus also on the damage tolerance during low-velocity impact tests, alongside an evaluation of post-impact performance across varying impact energy levels and temperatures (<b>P1</b>, <b>P10</b>).</p> <p>II) <i>Fiber Surface Modification with 3D Nanostructures for Enhanced Adhesion and Multifunctional Properties</i>: the modification of fiber surfaces with 3D nanostructures aims to improve fiber-matrix adhesion in thermoset polymer composites while imparting additional functionalities, such as photocatalytic and electrochemical properties. One approach involves growing ZnO nanorods on the fiber surface using a hydrothermal growth method. This low-temperature process enables successful ZnO nanostructuring on both synthetic fibers (<b>P6</b>) and natural fibers (<b>P9</b>), making it adaptable to a variety of composite applications. The vertically aligned nanorods contribute to improved interlaminar fracture resistance by enhancing matrix interlocking and optimizing load transfer capabilities within CFRPs.</p> <p>Another technique incorporates carbon nanotubes (CNTs) onto fiber surfaces (e.g., carbon, quartz, and basalt) using thermal chemical vapor deposition (T-CVD) and plasma-enhanced chemical vapor deposition (PE-CVD). These methods allow precise orientation and high-density alignment of CNTs on the fiber surface, significantly improving the adhesion between fibers and epoxy resin. The CNT-enhanced fibers not only improve the composite's structural integrity but also add functionality, creating high-performance materials.</p> <p>Oral presentation:</p> <ul style="list-style-type: none"> <li>• Hybrid fibre-reinforced composites (HyFiSyn) school &amp; conference - KU Leuven University, Belgium. Title: "Effect of zinc oxide nanorods on commercial electrospun veils for composite laminates production".</li> <li>• ASC 36th Technical Conference of the American Society for Composites Virtual Conference. Title: "Hierarchical electrospun veils as potential toughening materials for structural composite laminates".</li> <li>• "XVII Convegno Nazionale dell'Associazione Italiana di Ingegneria dei Materiali", Catania. Title: "The influence of electrospun veils position on the damage tolerance of carbon fibre reinforced laminates".</li> <li>• "XIV Convegno INSTM sulla Scienza e Tecnologia dei Materiali", Cagliari. Title: "Plasma- assisted growth of carbon nanotubes on continuous fibers as reinforcing agents in multifunctional polymer composites".</li> </ul>
<b>4. Materials for environmental and</b>	I) <i>Synthesis and characterization of polymer composites for cation exchange membranes</i> ( <b>P8</b> , <b>P12</b> ): this research focuses on the synthesis

<b>electrochemical application</b>	<p>and detailed analysis of Fe<sub>3</sub>O<sub>4</sub>/polyethersulfone (PES) nanocomposite membranes fabricated by melt extrusion, aimed at improving properties essential for electrochemical applications. The study evaluates the mechanical, thermal, and electrochemical characteristics, showing that membrane pretreatment and sulfonating the nanoparticles jointly with the optimization of the membrane manufacturing process significantly enhance interfacial adhesion between filler particles and the PES polymer matrix. These enhancements contribute to greater mechanical properties and improved electrochemical performance compared to traditional PES composites. Notably, the optimized nanocomposite membranes show potential as alternatives to commercially available Nafion 117 membranes typically used in Microbial Fuel Cell systems.</p> <p>II) Synthesis and Application of Advanced Electrode Materials for the Electroreduction of Aqueous Contaminants: in this framework, the synthesis of both metal-based (<b>P3</b>) and carbon-based materials as cathodes designed to reduce environmental pollutants in aqueous matrices are considered. The research includes surface modification techniques, such as etching, anodization, and calcination, intended to enhance the efficiency and durability of these electrodes. The effects of these treatments are systematically assessed through morphological analysis and electrochemical characterization, with promising results in catalytic activity. These modified electrodes demonstrate considerable potential for use in contaminant removal in water treatment systems, highlighting the role of tailored surface modifications in optimizing electrode performance.</p>
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#### VIIIB- Conferences

Year	Details
2024	ECCM21: 21st European Conference on Composite Materials for academia and industry”, Nantes, France. <b>Oral presentation:</b> “Trade-off between performance and processability of PLA/PBAT/PHBV-Flax composites: effect of flax fibers surface modification”.
2024	“XIV Convegno INSTM sulla Scienza e Tecnologia dei Materiali”, Cagliari, Italy. <b>Oral presentation:</b> “Plasma- assisted growth of carbon nanotubes on continuous fibers as reinforcing agents in multifunctional polymer composites”.
2023	“ICNF 2023- 6th International Conference on Natural Fibers”, Funchal, Portugal. <b>Oral presentation:</b> “Flax/Biodegradable polymer composites: optimization of PLA/PBAT/PHBV ternary blend formulation and effect of the natural fibers on the composite properties”.
2023	“ICCM23: International Conference on Composite Materials”, Belfast, Northern Ireland. <b>Oral presentation:</b> “Natural fabrics and biodegradable polymers for the manufacture of environmentally friendly composite materials”.
2023	"30 years of INSTM: past, present and future of the Consortium”, Bressanone, Italy. <b>Oral presentation:</b> "PLA/PBAT/FLAX biocomposites: the use of natural fabrics for the manufacture of sustainable and performant composite materials".
2023	"XVII Convegno Nazionale dell'Associazione Italiana di Ingegneria dei Materiali”, Catania, Italy. <b>Oral presentation:</b> "The influence of electrospun veils position on the damage tolerance of carbon fibre reinforced laminates".
2022	"M&Ns-22 International conference on Materials and Nanomaterials", Rome, Italy. <b>Oral presentation:</b> "Bio waste fillers as reinforcing agents for eco-friendly polymer composites production".

2022	"BIOpol 2022: 8th International Conference on Bio-based and Biodegradable Polymers", Alicante, Spain. <b>Oral presentation:</b> "Mechanical recycling of commercial biodegradable polymer blend: multiple melt processing and performance analysis".
2021	XVI Convegno nazionale AIMAT 2021, Cagliari, Italy. <b>Oral presentation:</b> "Plant waste as green reinforcement for polymer composites and adsorbent material for wastewater decontamination: a case- study of Pteris Vittata roots".
2021	ASC 36th Technical Conference of the American Society for Composites, virtual conference. <b>Oral presentation:</b> "Hierarchical electrospun veils as potential toughening materials for structural composite laminates".
2021	Hybrid fibre-reinforced composites (HyFiSyn) school & conference - KU Leuven University, Belgio, virtual conference. <b>Oral presentation:</b> "Effect of zinc oxide nanorods on commercial electrospun veils for composite laminates production".

#### VIIIC- Training courses, workshops and seminars

Year	Details
2019	Training course: "Experimental Design", Kode s.r.l. (Pisa)
2021	Workshops: "JMP Statistical Discovery Software: Academic Workshop" Sapienza University of Rome
2016	Seminar: Prof. Choplin "Rheology: some elements of the science of the deformation and flow of the matter" Sapienza University of Rome

#### Part IX – Summary of Scientific Achievements (Scopus database at 27/10/24, Author ID: 57188838110)

Product type	Number	Data Base	Start	End
Papers [international]	<b>61</b>	Scopus (last access 27/10/2024)	2016	2024
Review [international]	<b>2</b>	Scopus (last access 27/10/2024)	2016	2024
Conference Papers [international]	<b>12</b>	Scopus (last access 27/10/2024)	2018	2024
Total products	<b>75</b>	Scopus (last access 27/10/2024)	2016	2024

Total Impact factor	<b>257.775</b> (Scopus last access 27/10/2024)
Average Impact Factor	<b>4.091</b> (=257.775/ 63 papers and reviews)
Total Citations	<b>1027</b> (Scopus last access 27/10/2024)
Average Citations per Product	<b>13.693</b> (=1027/75)
Hirsch (H) index	<b>18</b> (Scopus last access 27/10/2024)
Normalized H index*	<b>2</b> (=18/9 years from the first publication)

\*H index divided by the academic seniority

IF at the year of publication (Journal Citation Report of Clarivate-Web of Science)

Average IF at the year of publication (Journal Citation of Clarivate-Web of Science)

#### Part X– Selected Publications

List of the publications selected for the evaluation.

For each publication year, title, authors, reference data, journal IF at the year of publication (Journal Citation Report of Clarivate-Web of Science), citations (Scopus database at **27/10/2024**), quartile at the year of publication (Scimago), are reported. Author Scopus ID: **57188838110**.

	Year	Title	Authors	Reference data	IF	Citations	Quartile
P1	2024	Extreme temperature influence on low velocity impact damage and residual flexural properties of CFRP	<b>Bavasso I.</b> *, Sergi C., Ferrante L., Pawlik M., Lu Y., Lampani L., Tirillò J., Sarasini F.	Polymer Composites DOI: 10.1002/pc.29029	4.8	0	Q1
P2	2024	Linoleum waste as PLA filler for components cost reduction: Effects on the thermal and mechanical behavior	Sergi C., <b>Bavasso I.</b> , Frighetto G., Tirillò J., Sarasini F., Casalini S.	Polymer Testing, 138, art. no. 108548 DOI: 10.1016/j.polymertesting.2024.108548	5	0	Q1
P3	2024	Copper-Decorated Titanium Electrodes: Impact of Surface Modifications of Substrate on the Morphology and Electrochemical Performance	Sotgiu G., De Santis S., Orsini M., <b>Bavasso I.</b> , Sarasini F., Petrucci E.	ACS Applied Materials and Interfaces, 16 (19), pp. 24483 – 24493 DOI: 10.1021/acsami.4c00203	8.3	0	Q1
P4	2024	Recycling of a commercial biodegradable polymer blend: Influence of reprocessing cycles on rheological and thermo-mechanical properties	<b>Bavasso I.</b> *, Bracciale M.P., De Bellis G., Pantaleoni A., Tirillò J., Pastore G., Gabrielli S., Sarasini F.	Polymer Testing, 134, art. no. 108418 DOI: 10.1016/j.polymertesting.2024.108418	5	0	Q1
P5	2024	Optimization of Processing Conditions for Rice Bran-based Bioplastics Through Extrusion and Injection Molding	Alonso-González M., Felix M., Romero A., Sergi C., <b>Bavasso I.</b> , Sarasini F.	Journal of Polymers and the Environment DOI: 10.1007/s10924-024-03377-4	4.7	0	Q1
P6	2023	Effect of ZnO-decorated electrospun veils on the damage tolerance of CFRP laminates	<b>Bavasso I.</b> *, Tirillò J., Lampani L., Sarasini F.	Composites Communications, 40, art. no. 101619 DOI: 10.1016/j.coco.2023.101619	6.5	2	Q1
P7	2023	Plant Waste as Green Reinforcement for Polymer Composites: A Case Study of Pteris Vittata Roots	<b>Bavasso I.</b> *, Marzi D., Bracciale M.P., Di Palma L., Tirillò J., Sarasini F.	Journal of Natural Fibers, 20 (1), art. no. 2135669 DOI: 10.1080/15440478.2022.2135669	2.8	2	Q1

P8	2021	Sulfonated Fe <sub>3</sub> O <sub>4</sub> /PES nanocomposites as efficient separators in microbial fuel cells	<b>Bavasso I.</b> *, Bracciale M.P., Sbardella F., Puglia D., Dominici F., Torre L., Tirillò J., Sarasini F., De Rosa I.M., Xin W., Di Palma L.	Journal of Membrane Science, 620, art. no. 118967 DOI: 10.1016/j.memsci.2020.118967	10.53	18	Q1
P9	2021	Interface tailoring between flax yarns and epoxy matrix by ZnO nanorods	Sbardella F., Lilli M., Seghini M.C., <b>Bavasso I.</b> , Touchard F., Chocinski-Arnault L., Rivilla I., Tirillò J., Sarasini F.	Composites Part A: Applied Science and Manufacturing, 140, art. no. 106156 DOI: 10.1016/j.compositesa.2020.106156	9.463	13	Q1
P10	2020	Impact and post-impact properties of multiscale carbon fiber composites interleaved with carbon nanotube sheets	Xin W., Sarasini F., Tirillò J., <b>Bavasso I.</b> , Sbardella F., Lampani L., De Rosa I.M.	Composites Part B: Engineering, 183, art. no. 107711 DOI: 10.1016/j.compositesb.2019.107711	9.078	46	Q1
P11	2020	Effect of yerba mate (Ilex paraguariensis) residue and coupling agent on the mechanical and thermal properties of polyolefin-based composites	<b>Bavasso I.</b> *, Bracciale M.P., Sbardella F., Tirillò J., Sarasini F., Di Palma L.	Polymer Composites, 41 (1), pp. 161 – 173 DOI: 10.1002/pc.25355	3.17	10	Q2
P12	2018	Synthesis, characterization and performance evaluation of Fe <sub>3</sub> O <sub>4</sub> /PES nano composite membranes for microbial fuel cell	Di Palma L., <b>Bavasso I.</b> *, Sarasini F., Tirillò J., Puglia D., Dominici F., Torre L.	European Polymer Journal, 99, pp. 222 – 229 DOI: 10.1016/j.eurpolymj.2017.12.037	3.621	59	Q1

\*corresponding author

The journal quartile (Q1 and Q2) is related to subject categories as **polymer science, composites, materials science, and textiles**.

## Part XI– Publications

List of the publications indexed in the SCOPUS database (Author ID: **57188838110**).

For each publication year, title, authors, reference data, journal IF at the year of publication (Journal Citation Report of Clarivate-Web of Science) and citations (Scopus database at **27/10/2024**) are reported.

### XIA- Papers

	Year	Title	Authors	Reference data	IF	Citations
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1	2024	Extreme temperature influence on low velocity impact damage and residual flexural properties of CFRP	Bavasso I., Sergi C., Ferrante L., Pawlik M., Lu Y., Lampani L., Tirillò J., Sarasini F.	Polymer Composites DOI: 10.1002/pc.29029	4.8	0
2	2024	Linoleum waste as PLA filler for components cost reduction: Effects on the thermal and mechanical behavior	Sergi C., Bavasso I., Frighetto G., Tirillò J., Sarasini F., Casalini S.	Polymer Testing, 138, art. no. 108548 DOI: 10.1016/j.polymertesting.2024.108548	5	0
3	2024	Copper-Decorated Titanium Electrodes: Impact of Surface Modifications of Substrate on the Morphology and Electrochemical Performance	Sotgiu G., De Santis S., Orsini M., Bavasso I., Sarasini F., Petrucci E.	ACS Applied Materials and Interfaces, 16 (19), pp. 24483 – 24493 DOI: 10.1021/acsami.4c00203	8.3	0
4	2024	Recycling of a commercial biodegradable polymer blend: Influence of reprocessing cycles on rheological and thermo-mechanical properties	Bavasso I., Bracciale M.P., De Bellis G., Pantaleoni A., Tirillò J., Pastore G., Gabrielli S., Sarasini F.	Polymer Testing, 134, art. no. 108418 DOI: 10.1016/j.polymertesting.2024.108418	5	0
5	2024	Facile and Bioinspired Approach from Gallic Acid for the Synthesis of Biobased Flame Retardant Coatings of Basalt Fibers	Pantaleoni A., Sarasini F., Russo P., Passaro J., Giorgini L., Bavasso I., Santarelli M.L., Petrucci E., Valentini F., Bracciale M.P., Marrocchi A.	ACS Omega, 9 (17), pp. 19099 – 19107 DOI: 10.1021/acsomega.3c10129	3.7	0
6	2024	Optimization of Processing Conditions for Rice Bran-based Bioplastics Through Extrusion and Injection Molding	Alonso-González M., Felix M., Romero A., Sergi C., Bavasso I., Sarasini F.	Journal of Polymers and the Environment DOI: 10.1007/s10924-024-03377-4	4.7	0
7	2024	Comparison of carbon-reinforced composites manufactured by vacuum assisted resin infusion with traditional and fully recyclable epoxy resins	Tosto C., Saitta L., Barouni A., Sarasini F., Tirillò J., Bavasso I., Ziegmann G.	Polymer Composites DOI: 10.1002/pc.28858	4.8	0
8	2024	Multifunctional FFP2 Face Mask for White Light Disinfection and Pathogens Detection using Hybrid Nanostructures and Optical Metasurfaces	Zaccagnini F., De Biase D., Bovieri F., Perotto G., Quagliarini E., Bavasso I., Mangino G., Iuliano M., Calogero A., Romeo G., Singh D.P., Pierini F., Caracciolo G.,	Small, 20 (38), art. no. 2400531 <sup>[1]</sup> DOI: 10.1002/smll.202400531	13	2

			Petronella F., De Sio L.			
9	2023	Investigation of the synergistic effect of hydrogen peroxide and ultrasound on the photocatalytic treatment under visible light of dyes wastewater	Rosa D., Lattanzio S., Bavasso I., Di Palma L.	Chemical Engineering Science, 282, art. no. 119290 DOI: 10.1016/j.ces.2023.119290	4.1	10
10	2023	Upscaling of Electrospinning Technology and the Application of Functionalized PVDF-HFP@TiO <sub>2</sub> Electrospun Nanofibers for the Rapid Photocatalytic Deactivation of Bacteria on Advanced Face Masks	Cimini A., Borgioni A., Passarini E., Mancini C., Proietti A., Buccini L., Stornelli E., Schifano E., Dinarelli S., Mura F., Sergi C., Bavasso I., Cortese B., Passeri D., Imperi E., Rinaldi T., Picano A., Rossi M.	Polymers, 15 (23), art. no. 4586 DOI: 10.3390/polym15234586	4.7	3
11	2023	Toward clima-resilient ultra-high performance concrete (UHPC): A survey on high-strength mortars engineered with extra-low dosage graphene-based materials (GBMs)	Lamastra F.R., Bavasso I., Bracciale M.P., Duranti L., Montesperelli G., Di Palma L., Bianco A.	Ceramics International, 49 (23), pp. 38482 – 38498 DOI: 10.1016/j.ceramint.2023.09.179	5.1	2
12	2023	Effect of ZnO-decorated electrospun veils on the damage tolerance of CFRP laminates	Bavasso I.* Tirillò J., Lampani L., Sarasini F.	Composites Communications, 40, art. no. 101619 DOI: 10.1016/j.coco.2023.101619	6.5	2
13	2023	Easy way to produce iron-doped titania nanoparticles via the solid-state method and investigation their photocatalytic activity	Rosa D., D'Agostino F., Bavasso I., Bracciale M.P., Di Palma L.	Journal of Materials Research, 38 (5), pp. 1282 – 1292 DOI: 10.1557/s43578-022-00885-8	2.7	11
14	2023	Removal of Methylene Blue from Wastewater by Waste Roots from the Arsenic-Hyperaccumulator Pteris vittata: Fixed Bed Adsorption Kinetics	Mazzeo L., Marzi D., Bavasso I., Piemonte V., Di Palma L.	Materials, 16 (4), art. no. 1450 DOI: 10.3390/ma16041450	3.4	5
15	2023	An Innovative and Easy Method for Iron-Doped Titania Synthesis	Rosa D., D'Agostino F., Bavasso I., Di Palma L.	Chemical Engineering Transactions, 101, pp. 13 – 18 DOI: 10.3303/CET23101003	-	4
16	2023	Adsorption of Rhodamine B from Wastewater on the Arsenic-Hyperaccumulator Pteris Vittata Waste Roots	Mazzeo L., Falasconi M.B., Bertino A., Marzi D., Bavasso I., Piemonte V., Di Palma L.	Chemical Engineering Transactions, 101, pp. 101 – 121 DOI: 10.3303/CET23101021	-	0

17	2023	Soil Biocementation via Enzyme Induced Carbonate Precipitation (EICP) Method Employing Soybeans as a Source of Cheap Enzyme	Rosa D., Verdirame L., Bavasso I., Bracciale M.P., Di Palma L.	Chemical Engineering Transactions, 99, pp. 157 – 162 DOI: 10.3303/CET2399027	-	3
18	2023	Plant Waste as Green Reinforcement for Polymer Composites: A Case Study of Pteris Vittata Roots	Bavasso I., Marzi D., Bracciale M.P., Di Palma L., Tirillò J., Sarasini F.	Journal of Natural Fibers, 20 (1), art. no. 2135669 DOI: 10.1080/15440478.2022.2135669	2.8	2
19	2023	Geopolymer Materials for Low-Pressure Injections in Coarse Grained Soil: Multiscale Approach to the Study of the Mechanical Behaviour and Environmental Impact	Bocci M., Cerocchi C., Sebastiani D., Di Giulio A., Napoleoni Q., Di Palma L., Miliziano S., Bavasso I.	Geotechnical and Geological Engineering, 41 (1), pp. 445 – 457 DOI: 10.1007/s10706-022-02260-0	1.7	4
20	2022	Chemical, Thermal and Mechanical Characterization of Licorice Root, Willow, Holm Oak, and Palm Leaf Waste Incorporated into Maleated Polypropylene (MAPP)	Gabrielli S., Caviglia M., Pastore G., Marcantoni E., Nobili F., Bottoni L., Catorci A., Bavasso I., Sarasini F., Tirillò J., Santulli C.	Polymers, 14 (20), art. no. 4348 DOI: 10.3390/polym14204348	5	1
21	2022	Recycled Multi-Material Packaging Reinforced with Flax Fibres: Thermal and Mechanical Behaviour	Bavasso I., Sergi C., Valente T., Tirillò J., Sarasini F.	Polymers, 14 (20), art. no. 4423 DOI: 10.3390/polym14204423	5	4
22	2022	Characterization of waste roots from the as hyperaccumulator Pteris vittata as low-cost adsorbent for methylene blue removal	Mazzeo L., Marzi D., Bavasso I., Bracciale M.P., Piemonte V., Di Palma L.	Chemical Engineering Research and Design, 186, pp. 13 – 21 DOI: 10.1016/j.cherd.2022.07.025	3.9	10
23	2022	Effect of Water-Ethanol Extraction as Pre-Treatment on the Adsorption Properties of Aloe vera Waste	Mazzeo L., Bavasso I., Spallieri M., Bracciale M.P., Piemonte V., Di Palma L.	Materials, 15 (16), art. no. 5566 DOI: 10.3390/ma15165566	3.4	5
24	2022	Ozone-based electrochemical advanced oxidation processes	Bavasso I., Montanaro D., Petrucci E.	Current Opinion in Electrochemistry, 34, art. no. 101017 DOI: 10.1016/j.coelec.2022.101017	8.5	17
25	2021	Effect of Ni, Zn and Fe on hydrothermal liquefaction of cellulose: Impact on bio-crude yield and composition	de Caprariis B., Scarsella M., Bavasso I., Bracciale M.P., Tai L., De Filippis P.	Journal of Analytical and Applied Pyrolysis, 157, art. no. 105225 DOI: 10.1016/j.jaap.2021.105225	6.347	33
26	2021	Zinc oxide nanostructures and stearic acid as surface modifiers for flax fabrics in polylactic acid biocomposites	Sbardella F., Rivilla I., Bavasso I., Russo P., Vitiello L., Tirillò J., Sarasini F.	International Journal of Biological Macromolecules, 177, pp. 495 – 504 DOI: 10.1016/j.ijbiomac.2021.02.171	8.025	15

27	2021	Sulfonated Fe <sub>3</sub> O <sub>4</sub> /PES nanocomposites as efficient separators in microbial fuel cells	Bavasso I., Bracciale M.P., Sbardella F., Puglia D., Dominici F., Torre L., Tirillò J., Sarasini F., De Rosa I.M., Xin W., Di Palma L.	Journal of Membrane Science, 620, art. no. 118967 DOI: 10.1016/j.memsci.2020.118967	10.53	18
28	2021	Experimental assessment of a hybrid process including adsorption/photo Fenton oxidation and Microbial Fuel Cell for the removal of dicarboxylic acids from aqueous solution	Civan G., Palas B., Ersaz G., Atalay S., Bavasso I., Di Palma L.	Journal of Photochemistry and Photobiology A: Chemistry, 407, art. no. 113056 DOI: 10.1016/j.jphotochem.2020.113056	5.141	5
29	2021	Functionalization of commercial electrospun veils with zinc oxide nanostructures	Bavasso I., Sbardella F., Bracciale M.P., Lilli M., Tirillò J., Di Palma L., Felici A.C., Sarasini F.	Nanomaterials, 11 (2), art. no. 418, pp. 1 – 19 DOI: 10.3390/nano11020418	5.719	2
30	2021	Surface modification of basalt fibres with zno nanorods and its effect on thermal and mechanical properties of pla-based composites	Sbardella F., Martinelli A., Di Lisio V., Bavasso I., Russo P., Tirillò J., Sarasini F.	Biomolecules, 11 (2), art. no. 200, pp. 1 – 19 DOI: 10.3390/biom11020200	6.064	19
31	2021	Enhancing the photocatalytic activity of TiO <sub>2</sub> and TiO <sub>2</sub> SiO <sub>2</sub> by coupling with graphene gold nanocomposites	Chinh V.D., Bavasso I., Di Palma L., Felici A.C., Scarsella M., Vilardi G., Bracciale M.P., Van N.T.	Journal of Materials Science: Materials in Electronics, 32 (4), pp. 5082 – 5093 DOI: 10.1007/s10854-021-05242-9	2.779	17
32	2021	In situ bio-methanation modelling of a randomly packed gas stirred tank reactor (Gstr)	Mazzeo L., Signorini A., Lembo G., Bavasso I., Di Palma L., Piemonte V.	Processes, 9 (5), art. no. 846 DOI: 10.3390/pr9050846	3.352	5
33	2021	Entrapped zinc oxide and titania nanoparticles in calcium alginate beads for the removal of Methylene Blue (MB): Adsorption properties and photocatalytic stability	Mazzeo L., Rosa D., Bavasso I., Di Palma L.	Chemical Engineering Transactions, 84, pp. 181 – 186 DOI: 10.3303/CET2184031	-	4
34	2021	Interface tailoring between flax yarns and epoxy matrix by ZnO nanorods	Sbardella F., Lilli M., Seghini M.C., <b>Bavasso I.</b> , Touchard F., Chocinski-Arnault L., Rivilla I., Tirillò J., Sarasini F.	Composites Part A: Applied Science and Manufacturing, 140, art. no. 106156 DOI: 10.1016/j.compositesa.2020.106156	9.463	13

35	2021	Tailoring the interfacial strength of basalt fibres/epoxy composite with ZnO-nanorods	Lilli M., Sbardella F., Bavasso I., Bracciale M.P., Scheffler C., Rivilla I., Tirillò J., Xin W., De Rosa I.M., Sarasini F.	Composite Interfaces, 28 (8), pp. 771 – 793 DOI: 10.1080/09276440.2020.1805217	2.839	14
36	2020	Remediation of hexavalent chromium contaminated water through zero-valent iron nanoparticles and effects on tomato plant growth performance	Brasili E., Bavasso I., Petrucci V., Vilardi G., Valletta A., Bosco C.D., Gentili A., Pasqua G., Di Palma L.	Scientific Reports, 10 (1), art. no. 1920 DOI: 10.1038/s41598-020-58639-7	4.38	116
37	2020	Fenton oxidation of primary municipal wastewater treatment plant sludge: Process modelling and reactor scale-up	Vilardi G., Bavasso I., Scarsella M., Verdone N., Di Palma L.	Process Safety and Environmental Protection, 140, pp. 46 – 59 DOI: 10.1016/j.psep.2020.05.002	6.158	25
38	2020	Yerba mate (Ilex paraguensis) as bio-adsorbent for the removal of methylene blue, remazol brilliant blue and chromium hexavalent: Thermodynamic and kinetic studies	Mazzeo L., Bavasso I., Bracciale M.P., Cocchi M., Di Palma L., Piemonte V.	Water (Switzerland), 12 (7), art. no. 2016 DOI: 10.3390/w12072016	3.103	8
39	2020	A rapid experimental procedure to assess environmental compatibility of conditioning mixtures used in TBM-EPB technology	Bavasso I., Vilardi G., Sebastiani D., Di Giulio A., Di Felice M., Di Biase A., Miliziano S., Di Palma L.	Applied Sciences (Switzerland), 10 (12), art. no. 4138 DOI: 10.3390/APP10124138	2.679	3
40	2020	Enhanced degradation of paracetamol by combining UV with electrogenerated hydrogen peroxide and ozone	Bavasso I., Poggi C., Petrucci E.	Journal of Water Process Engineering, 34, art. no. 101102 DOI: 10.1016/j.jwpe.2019.101102	5.485	29
41	2020	Unsupported Ni metal catalyst in hydrothermal liquefaction of oak wood: Effect of catalyst surface modification	de Caprariis B., Bracciale M.P., Bavasso I., Chen G., Damizia M., Genova V., Marra F., Paglia L., Pulci G., Scarsella M., Tai L., De Filippis P.	Science of the Total Environment, 709, art. no. 136215 DOI: 10.1016/j.scitotenv.2019.136215	7.963	40
42	2020	Impact and post-impact properties of multiscale carbon fiber composites interleaved with carbon nanotube sheets	Xin W., Sarasini F., Tirillò J., Bavasso I., Sbardella F., Lampani L., De Rosa I.M.	Composites Part B: Engineering, 183, art. no. 107711 DOI: 10.1016/j.compositesb.2019.107711	9.078	46
43	2020	Effect of electrospun	Sarasini F., Tirillò	Composite Structures, 234, art. no.	5.407	22

		nanofibres and MWCNTs on the low velocity impact response of carbon fibre laminates	J., Bavasso I., Bracciale M.P., Sbardella F., Lampani L., Cicala G.	111776 DOI: 10.1016/j.compstruct.2019.111776		
44	2020	Effect of Pretreatment of Nanocomposite PES-Fe <sub>3</sub> O <sub>4</sub> Separator on Microbial Fuel Cells Performance	Bavasso I., Di Palma L., Puglia D., Luzi F., Dominici F., Tirillò J., Sarasini F., Torre L.	Polymer Engineering and Science, 60 (2), pp. 371 – 379 DOI: 10.1002/pen.25292	2.428	8
45	2020	Electrochemically assisted decomposition of ozone for degradation and mineralization of Diuron	Bavasso I., Montanaro D., Di Palma L., Petrucci E.	Electrochimica Acta, 331, art. no. 135423 DOI: 10.1016/j.electacta.2019.135423	6.901	32
46	2020	Assessment of alkali-silica reactivity of aggregates by concrete expansion tests in alkaline solutions at 38 °C	Bavasso I., Costa U., Mangialardi T., Paolini A.E.	Materials, 13 (2), art. no. 288 DOI: 10.3390/ma13020288	3.623	5
47	2020	Effect of yerba mate (Ilex paraguariensis) residue and coupling agent on the mechanical and thermal properties of polyolefin-based composites	Bavasso I., Bracciale M.P., Sbardella F., Tirillò J., Sarasini F., Di Palma L.	Polymer Composites, 41 (1), pp. 161 – 173 DOI: 10.1002/pc.25355	3.17	10
48	2019	Olive mill wastewater integrated purification through pre-treatments using coagulants and biological methods: Experimental, modelling and scale-up	Vuppala S., Bavasso I., Stoller M., Di Palma L., Vilardi G.	Journal of Cleaner Production, 236, art. no. 117622 DOI: 10.1016/j.jclepro.2019.117622	7.246	54
49	2019	Classification of foam and foaming products for EPB mechanized tunnelling based on half-life time	Sebastiani D., Vilardi G., Bavasso I., Di Palma L., Miliziano S.	Tunnelling and Underground Space Technology, 92, art. no. 103044 DOI: 10.1016/j.tust.2019.103044	4.45	35
50	2019	Synthesis of Fe/Ni bimetallic nanoparticles and application to the catalytic removal of nitrates from water	Valiyeva G.G., Bavasso I., Di Palma L., Hajjiyeva S.R., Ramazanov M.A., Hajjiyeva F.V.	Nanomaterials, 9 (8), art. no. 1130 DOI: 10.3390/nano9081130	4.324	23
51	2019	Enhanced bio-crude yield and quality by reductive hydrothermal liquefaction of oak wood biomass: Effect of iron addition	de Caprariis B., Bavasso I., Bracciale M.P., Damizia M., De Filippis P., Scarsella M.	Journal of Analytical and Applied Pyrolysis, 139, pp. 123 – 130 DOI: 10.1016/j.jaap.2019.01.017	3.905	57
52	2019	Biological treatment of wastewater from pyrolysis plant: Effect of organics concentration, pH and temperature	Di Palma L., Bavasso I., Capocelli M., De Filippis P., Piemonte V.	Water (Switzerland), 11 (2), art. no. 336 DOI: 10.3390/w11020336	2.544	7
53	2019	Cr(VI) removal by chitosan-magnetite nano-composite in	Bavasso I., Vuppala S., Cianfrini C.	Chemical Engineering Transactions, 73, pp. 163 – 168 DOI: 10.3303/CET1973028	-	8

		aqueous solution				
54	2018	Synthesis, characterization and performance evaluation of Fe <sub>3</sub> O <sub>4</sub> /PES nano composite membranes for microbial fuel cell	Di Palma L., Bavasso I., Sarasini F., Tirillò J., Puglia D., Dominici F., Torre L.	European Polymer Journal, 99, pp. 222 – 229 DOI: 10.1016/j.eurpolymj.2017.12.037	3.621	59
55	2018	Effect of nano-magnetite particle content on mechanical, thermal and magnetic properties of polypropylene composites	Di Palma L., Bavasso I., Sarasini F., Tirillò J., Puglia D., Dominici F., Torre L., Galluzzi A., Polichetti M., Ramazanov M.A., Hajjiyeva F.V., Shirinova H.A.	Polymer Composites, 39, pp. E1742 - E1750 DOI: 10.1002/pc.24727	2.268	21
56	2018	Shortcut Biological Nitrogen Removal (SBNR) in an MFC anode chamber under microaerobic conditions: The effect of C/N ratio and kinetic study	Bavasso I., Montanaro D., Petrucci E., Di Palma L.	Sustainability (Switzerland), 10 (4), art. no. 1062 DOI: 10.3390/su10041062	2.592	11
57	2018	Cr(VI) removal by green-synthesized iron-based nanoparticles: Effect of Cr(VI) concentration and pH condition on adsorption process	Bavasso I., Verdone N., Di Palma L.	Chemical Engineering Transactions, 70, pp. 469 – 474 DOI: 10.3303/CET1870079	-	8
58	2017	Shortcut Biological Nitrogen Removal (SBNR) in Microbial Fuel Cells (MFCs)	Bavasso I., Montanaro D., Petrucci E., Di Palma L.	Chemical Engineering Transactions, 57, pp. 727 – 732 DOI: 10.3303/CET1757122	-	7
59	2017	Photolysis of in-situ electrogenerated hydrogen peroxide for the degradation of emerging pollutants	Montanaro D., Bavasso I., Di Palma L., Petrucci E.	Chemical Engineering Transactions, 57, pp. 643 – 648 DOI: 10.3303/CET1757108	-	3
60	2017	Cadmium removal from aqueous solution by adsorption on spent coffee grounds	Patterer M.S., Bavasso I., Sambeth J.E., Medici F.	Chemical Engineering Transactions, 60, pp. 157 – 162 DOI: 10.3303/CET1760027	-	28
61	2016	The influence of heavy metals and organic matter on hexavalent chromium reduction by nano zero valent iron in soil	Gueye M.T., Di Palma L., Allahverdeyeva G., Bavasso I., Petrucci E., Stoller M., Vilardi G.	Chemical Engineering Transactions, 47, pp. 289 – 294 DOI: 10.3303/CET1647049	-	53
62	2016	Perspectives in nanotechnology based innovative applications for the environment	Bavasso I., Vilardi G., Stoller M., Chianese A., Di Palma L.	Chemical Engineering Transactions, 47, pp. 55 – 60 DOI: 10.3303/CET1647010	-	51
63	2016	Treatment of wastewater in H-type MFC with protonic exchange	Bavasso I., Di Palma L., Petrucci E.	Chemical Engineering Transactions, 47, pp. 223 – 228 DOI: 10.3303/CET1647038	-	15

		membrane: Experimental study of organic carbon and ammonium reduction with electrochemical characterization				
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#### XIB- Conference Papers

	Year	Title	Authors	Reference data	Citations
1	2024	Experimental study of rheological characteristics of bentonite-based drilling fluids	Javarone, S., Palombini, M., Cinelli, M., Bavasso, I., Sebastiani, D.	Tunnelling for a Better Life - Proceedings of the ITA-AITES World Tunnel Congress, WTC 2024 pp. 529-535 DOI: 10.1201/9781003495505-71	0
2	2023	Natural Fabrics and biodegradable polymers for the manufacture of environmentally friendly composite materials	Bavasso, I., Tirillò, J., Russo, P., Fiore, V., Sarasini, F.	ICCM International Conferences on Composite Materials, 2024 – August.	0
3	2023	Low temperature plasma enhanced growth of carbon nanostructures on quartz fibres	Lalle, G., Rago, I., Yadav, R.P., Cavoto, G., Pandolfi, F., Bracciale, M.P., Bavasso, I., Sarasini, F., Tirillò, J.	ICCM International Conferences on Composite Materials, 2024 – August.	0
4	2023	Environmental profile of bentonite drilling fluids for civil engineering applications	Padulosi, S., Putzu, D.F., Bartolini, N., Sebastiani, D., Cinelli, M., Mangifesta, S., Bavasso, I.	Expanding Underground - Knowledge and Passion to Make a Positive Impact on the World- Proceedings of the ITA-AITES World Tunnel Congress, WTC 2023, pp. 160-167 DOI: 10.1201/9781003348030-20	0
5	2023	Circular economy and reuse of excavated materials from TBM excavations	Sebastiani, D., Bavasso, I., Amici, M., Valiante, N., Di Nauta, M., Santamicone, M., De Carli, G.	Expanding Underground - Knowledge and Passion to Make a Positive Impact on the World- Proceedings of the ITA-AITES World Tunnel Congress, WTC 2023, pp. 904-912 DOI: 10.1201/9781003348030-109	0
6	2021	Hierarchical electrospun veils as potential toughening materials for	Bavasso, I., Sbardella, F., Bracciale, M.P., Tirillò, J., Di Palma,	36th Technical Conference of the American Society for Composites 2021: Composites Ingenuity Taking on Challenges in Environment-Energy-Economy,	0

		structural composite laminates	L., Lampani, L., Sarasini, F.	ASC 2021, 1, pp. 497-505	
7	2019	MFCs as biosensor, bioreactor and bioremediator	Pietrelli, A., Bavasso, I., Lovecchio, N., Ferrara, V., Allard, B.	Proceedings - 2019 8th International Workshop on Advances in Sensors and Interfaces, IWASI 2019, art. no. 8791412, pp. 302-306	8
8	2019	Chemical interaction between fine-grained soil and foaming agents in tunnelling with TBM-EPB	Sebastiani, D., Miliziano, S., Vilardi, G., Bavasso, I., Di Palma, L., Di Giulio, A.	17th European Conference on Soil Mechanics and Geotechnical Engineering, ECSMGE 2019 - Proceedings, 2019-September DOI: 10.32075/17ECSMGE-2019-1007	3
9	2019	Functionalization of basalt fibres by hydrothermal growth of zinc oxide nanostructures	Lilli, M., Sbardella, F., Bavasso, I., Bracciale, M.P., Seghini, M.C., Palma, L.D., Tirillò, J., Sarasini, F.	ICCM International Conferences on Composite Materials, 2019-August	0
10	2019	Hierarchical modification of flax fibres by zinc oxide nanostructures	Sbardella, F., Lilli, M., Bavasso, I., Bracciale, M.P., Seghini, M.C., Di Palma, L., Tirillò, J., Sarasini, F.	ICCM International Conferences on Composite Materials, 2019-August	0
11	2019	Influence of bacteria inoculum and organic concentration on the biodegradation of soil conditioning agents in aqueous solutions	Vilardi, G., Bavasso, I., Sebastiani, D., Miliziano, S., Di Palma, L., Pirone, M., Carriero, F., Sorge, R.	Tunnels and Underground Cities: Engineering and Innovation meet Archaeology, Architecture and Art- Proceedings of the WTC 2019 ITA-AITES World Tunnel Congress, pp. 551-556 DOI: 10.1201/9780429424441-58	1
12	2018	Cr(VI) removal by green-synthesized iron-based nanoparticles and bio- adsorbent	Bavasso, I., Verdone, N., Palma, L.D.	23rd International Congress of Chemical and Process Engineering, CHISA 2018 and 21st Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, PRES 2018, 2, pp. 683-684	0