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I am born in Ravenna, Italy in 1968, and since 1996 I am working at ISSMC (former ISTE C), from 2008 with permanent position. I acquired knowledge, skills and competence in different fields : structure-properties correlation applied to ceramic engineering ; sol-gel synthesis applied to the design of multi-component and multi-functional nano-phases, applied in environmental nanotechnology applications, characterisation of colloidal properties; technology transfer of ceramic nanostructured coatings and their functional characterisation (photoactive membranes, antibacterial surfaces, multi-functional textile). Since 2012, I am investigating properties and mechanisms of nano-world in biological environment, clinging to the idea that nano-phases have a great potential for the development of more efficient, less expensive and more sustainable systems for environmental pollution remediation. In particular, the experience gained in the field of nanomanufacturing and nanosafety, is supporting the implementation of Safe-and-Sustainable-by-Design approach, strongly boosted by European Commission, in the production of advanced materials with targeted physical properties and functionality.

Education

 ALMA MATER STUDIORUM UNIVERSITÀ DI BOLOGNA	1992 - Laurea Degree (Bachelor of Science + Master) in Pure Chemistry (cum laude) Advisor: Prof. E. Tagliavini.
	1996 - PhD in Chemical Science (Title: "Strategies of asymmetric synthesis in organic chemistry") Advisor: Prof. A. Umani-Ronchi.
	1996 – 2006 Postdoc Research Fellowships

Main Research Experience (Last 10 years)

	Since 2010 Head of Environmental Nanotechnology and Nanosafety Group.
 Ministero della Difesa	Scientific responsible at ISTE C of the National project: Fabricsafe, funded by Italian Ministry of Defence (Defense of humans through the fabrication of intelligent textile acting as active and passive protection. 2016-2017. Coordinator of the national project SOS-ACQUA (Sistema per la decontaminazione e lo sviluppo di energia dall'acqua) 2020-2021.
 PRO BIO POL	Coordinator of National projects: Probiopol (Innovative and sustainable production of biopolymers), Prototype I and II (Prototyping ProBioPol results), funded by CNR / Fabbrica del Futuro. 2014-2016.

	Coordinator of EU-funded research collaborative project “Safe Nano Worker Exposure Scenarios” – SANOWORK (FP7-280716). 2012-2015, EU contribution : 3500000 €. <i>We were pioneer in the promotion of safe by design approach applied to nano-enabled products and processes. Integration of nanoparticles surface functionalization or controlled aggregation steps for the management of hazard and/or exposure potential risk.</i>
	Work package leader (strategies of safe by design) of European research project SUN (Sustainable Nanotechnology, FP7-604305). 2013-2017, EU contribution : 13585305,20€.
	Partner (strategies of safe by design and exposure monitoring) of European research project PROTECT (Pre-commercial lines for production of surface nanostructured antimicrobial and anti-biofilm textiles, medical devices and water treatment membranes, H2020-NMBP-PILOTS-02-2016- 720851). 2017-2020, EU contribution : 9441862,50€.
	Work package leader (materials characterisation and dosimetry issues) of European research project PATROLS (Physiologically Anchored Tools for Realistic nanOmateriaL hazard aSsessment, H2020-NMBP-2017-760813). 2018-2021, EU contribution : 13108347,50€.
	Work package leader (strategy of safe by design) of European research project BIORIMA (BIOmaterial RiSk Management, H2020-NMBP-2017-760928). 2017-2021, EU contribution : 8761418,75€.
	Task leader (selection and implementation of project case studies) of European research project NANOINFORMATIX (Development and Implementation of a Sustainable Modelling Platform for NanoInformatics, H2020-NMBP-TO-IND-2018-814426). 2019-2023, EU contribution : 7751271,25€.
	Work package leader (development of safer products, managing risks along their life cycle, applying safe-by-design strategies) of European research project Sabyna (Simple, robust and cost-effective approaches to guide industry in the development of safer nanomaterials and nano-enabled products), H2020-NMBP-TO-IND-2018-2020-862419). 2020-2024, EU contribution : 5999068,75 €.
	Coordinator of the European research project ASiNA (Anticipating Safety Issues at the Design Stage of NAno Product Development, H2020-NMBP-TO-IND-2018-2020- 862444). 2020-2023, EU contribution : 5998386,25€.
	Development of ceramic nanostructured material for the adsorption and removal of wine undesired proteins and pollutants, research project MI-WINE (Mild innovative treatment for wine stabilisation, CORE ORGANIC & SUSFOOD 2-ID 87). 2020-2023, EU contribution : 239000€.
	Selection, engineering and physicochemical characterisation of multicomponent nanomaterials, research project SUNSHINE (Safe and sUstainable by desigN Strategies for High performance multi-component NanomatErials, H2020-NMBP-TO-IND-2020-952924). 2021-2024, EU contribution : 6521348,75€.
	Work package leader (selection, collection, distribution and physicochemical characterisation of target micronano-plastics) of European research project Plasticsfate (Plastics Fate and Effects in the Human Body), H2020-EU.3.1.1. SC1-BHC-36-2020 -

	965367). 2021-2025, EU contribution : 5999252,50€.
	Supervisor (Host Institute) of PostDoctoral Marie Skłodowska-Curie Actions (MSCA) Fellowship: SAFETYFANS (SAFETY and sustainability by design: a Framework for Advanced Nanomaterials Synthesis), HORIZON-MSCA-2022-PF-01-01 - MSCA Postdoctoral Fellowships 2022 – 101103082. 2023-2025, EU contribution: 172750,08€.
	PI for CNR cluster, Work package leader (case studies definition, management and development, data shepherd) of European research project INTEGRANO (Multidimensional Integrated Quantitative Approach To Assess Safety And Sustainability Of Nanomaterials In Real Case Life Cycle Scenarios Using Nanospecific Impact Categories, HORIZON-CL4-2023-RESILIENCE-01-22 – 101138414 - (RIA)). 2024-2027. EU contribution 3985648,75€.
	PI for CNR-ISSMC, Work package leader (Promotion, Sharing & Use of Methods & Models) of European research project PINK (Provision of Integrated Computational Approaches for Addressing New Market Goals for the Introduction of Safe-and-Sustainable-by-Design Chemicals and Materials, HORIZON-CL4-2023-RESILIENCE-01-23 - 101137809 (RIA)). 2024-2027, EU contribution 6218132,55€.

Scientific production

Author of more than 100 papers on ISI journals; H-index: 32; Citations: 3529 (Scholar). Author and/or co-author of 2 international patents, 5 chapters of books and more than 90 communications in international conferences (more than 20 oral invitation).

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Google Scholar ID:

https://scholar.google.it/citations?hl=it&user=gUfSQSIAAAAJ&view_op=list_works

Research Gate: https://www.researchgate.net/profile/Anna_Costa12.

Boards / Working groups

- Since 2023 Member of WG2 (Materials Production and Processes) and WG4 (Materials Innovation Market) of the European Advanced Materials 2030 Initiative (AMI2030)
- Since 2023 I am involved as expert by the European Commission to take part to SSbD framework testing phase, providing feedback during the testing phase on: a) activities promoting the SSbD framework in R&I programmes and policies, and b) the SSbD framework's feasibility and applicability via testing with case studies, and to initially guide the users through the SSbD framework.
- Since 2022 I am involved, as invited external expert, to the activities of the OECD Working Party on Manufactured Nanomaterials (WPMN), Steering Group (SG) on Advanced Materials. I have been involved in the process of evaluation of the Early4AdMa system, with a special focus on the case studies of the coordinated european project ASINA.
- Member of International Advisory Board of Nanosafety Training School: Towards Safe and Sustainable by Design Advanced (Nano)Materials, 15 - 20 May 2022 and of Nano-week & NanoCommons Final Conference, 20 – 24 June 2022.
- From 8 January 2021 – 28 January 2021 Abstract Reviewer for the international conference NanoTox 2021.
- Since 2021 Deputy leader of Work Group E of European Nano Safety Cluster (EU-NSC)
- Since 2021 Member of The European Research Cluster to Understand the Health ImpactS of Micro- and NanoPlastics (EU-CUSP), joining Work Group 1 (Analytical methods and representative materials).
- Since 2021 Member of the management board of Fondazione Cassa di Risparmio e Banca del Monte di Lugo.

- Since 2020 topic editor of journal Nanomaterials (MDPI) (https://www.mdpi.com/journal/nanomaterials/topic_editors).
- Since 2020 is part of working group of AIDIC (Associazione Italiana di Ingegneria Chimica) “Nanotecnologie chimiche” and in the scientific board of International Conference NINE 2021.
- Since 2019 External Advisor of Knowledge Research Infrastructure “Nanocommons” .

Teaching

- Set. 2006 –Set. 2008 Chemistry Teacher at Public Secondary School.
- I am co-tutoring regularly undergraduate and Ph.D students, planning and supervising their thesis experimental work.
- Since 2008 Annual seminars at Bachelor’s degree students and Ph.D School of Chemical Science, University of Bologna.
- Since 2010 Participation as teacher at monthly Exhibition / Training events for primary, secondary schools, citizens, industrial associations.
- Since 2021 Teaching Contract at University of Bologna: REGULATION AND NANOTECH [cod. 97496] - [Modulo 2] Nanomaterials and nanotechnologies regulations

Prizes / Exhibition

- 2010 - Festival della Scienza, Genova: Winner of the start cup CNR-II sole 24 Ore 2010 for the Nord Italy, with the project “Ceramic Textile”
- 2013-2016 - Interactive exhibition “Italia del futuro”: Interactive station n. 16 (over 20): “Technological textiles”, interactive exhibit presenting natural textiles which, after a process of ceramization, show self cleaning properties once exposed at the sunlight. Ed 2013 (Tokio, San Francisco, Los Angeles, Budapest); Ed. 2014 (Bruxelles, Madrid, Podgorica, Stockholm); 2015-2016 (Buenos Aires, Cordoba, Santiago Del Estero, Mexico City).
- 2016 - Stand at Fiera Bi-MU, Milano, showing two pilot plants (photoreactors) that were developed under the project Probiopol for the photodegradation of water organic pollutants.
- 2018 - Best Pitch Award at Nanoinnovation 2018, with a presentation: “Production of nanostructured microcapsule as powerful tool in green chemistry”.

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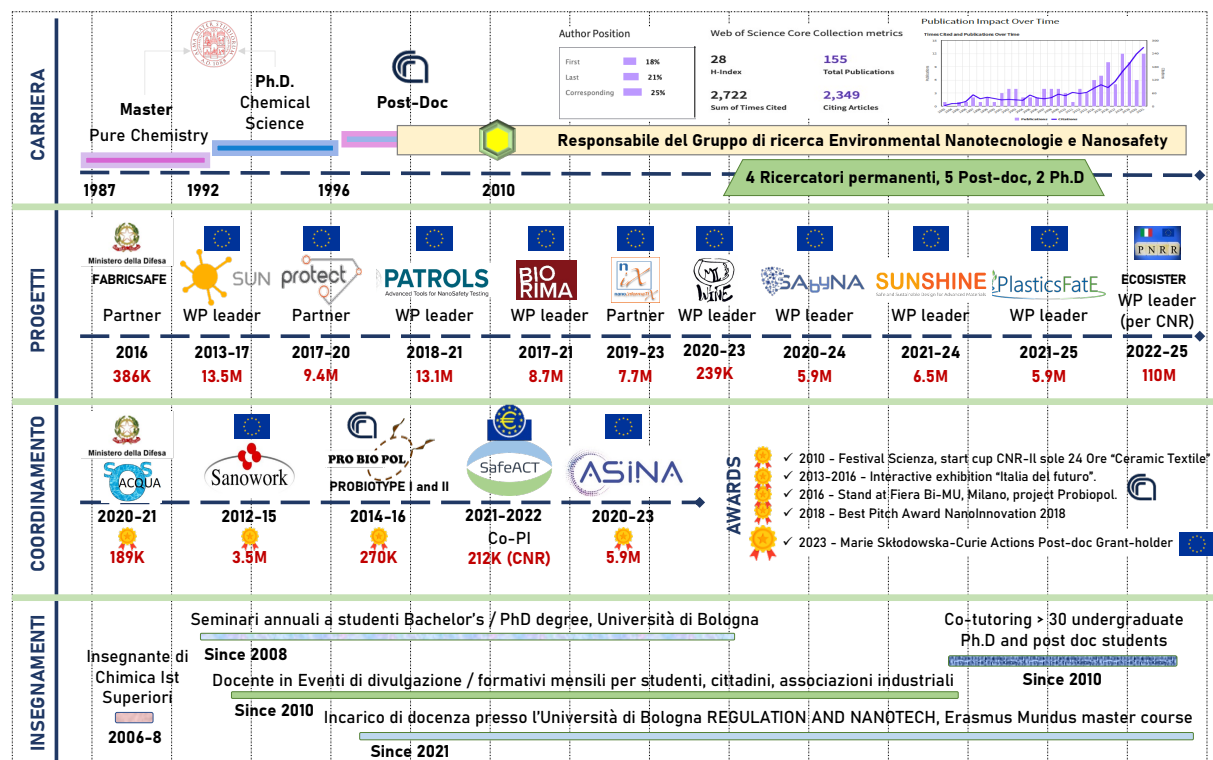
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A Snapshot of the CV including education, work experience, awards and peer-reviewed articles.

Il presente Curriculum è reso sotto forma di dichiarazione sostitutiva di certificazione e di dichiarazione sostitutiva dell'atto di notorietà ai sensi degli artt. 46 e 47 del d.P.R. 445/2000. All'uopo il sottoscritto dichiara di essere consapevole della responsabilità penale prevista, dall'art. 76 del citato decreto per le ipotesi di falsità in atti e dichiarazioni mendaci ivi indicate.

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Faenza 25/06/2025

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