



Carlo Punta
Professor in Chemistry for Technologies
Department of Chemistry, Materials and Chemical
Engineering “G. Natta”
Politecnico di Milano (Italy)
carlo.punta@polimi.it
<https://orcid.org/0000-0002-7239-9554>
[Scopus ID: 6603497178](#)

Carlo Punta was born in 1976 in Genoa (Italy), received his Laurea in Chemistry at the University of Genoa (2001) and obtained his Ph.D in Industrial Chemistry and Chemical Engineering in 2005 at Politecnico di Milano. He was invited researcher at Vanderbilt University, in Nashville, TN (USA), in 2003, and at University of Ottawa (CA), in 2016. Since 2021 he is Full Professor in Foundations of Chemistry for Technologies at the Department of Chemistry, Materials and Chemical Engineering “G, Natta” of Politecnico di Milano.

He has published more than 120 original peer-reviewed research articles, 13 book chapters, and he has been co-inventor of 11 licensed patents, all transferred to industrial companies.

His main research interests concern the extraction, functionalization, and processing of polysaccharides from virgin and wasted biomass, including cellulose and nanocellulose, dextrans, and galactomannans, both for the synthesis of new additives for packaging and (bio)building constructions, and for the design and production of nanostructured organic and ceramic materials and composites to be used as sorbent units for water treatment, sensors, heterogeneous catalysts, and drug and phytochemical delivery systems.

The approach for the synthesis of these materials follows the rules of the Green Nanoscience and of the Circular Economy for an effective eco-design, in order to guarantee the sustainability of the new systems in terms of environmental impact (LCA) and eco-safety since the early stage of production at laboratory scale. This is made possible thanks to the several national and international collaborations and the funding support derived from the participation to more than 30 research projects and contracts financed by Italian MUR (Minister of University and Research), European Union (Horizon2020), regional authorities and private companies.