

Curriculum Vitae of Simone Battiston

He obtained the Ph.D. in Molecular Science (Chemical Sciences) at University of Padua in 2010. Since 2006, he worked at National Research Council of Italy (CNR) with several fellowships and as associate member, working on thin film deposition techniques. Since 2010, the research as permanent research scientist at CNR has been focused on the synthesis and characterization of ceramic and alloy bulk materials and thin films for applications on energy, photocatalysis, and thermoelectricity. Most of the work carried out on the thermoelectric material field founded by the Italian National Research Council - Italian Ministry of Economic Development II Agreement "Ricerca di Sistema Elettrico Nazionale", Project "Materiali e tecnologie abilitanti per la ricerca di sistema elettrico", and it was performed also in collaboration with the Royal Institute of Technology (Sweden), Stockholm University (Sweden), and Tokyo University of Science (Japan). The technical expertise, developed within the research of materials for energetics, comprehend the synthesis, treatments, characterization and sintering of nanopowders, knowledge of vacuum systems, inert atmosphere systems, chemical and physical vapor deposition techniques, Rietveld refinements of X-ray patterns and the employment of field emission scanning electron microscope equipped with energy dispersive X-ray Spectroscopy.

He has been a member of the Italian Thermoelectric Society (Associazione Italiana di Termoelettricità, AIT) board and of the organizing and scientific committee of the two-day workshop series named "Giornate sulla Termoelettricità (GiTe)", which are held in Italy every year since 2013.

More recently, his work has been addressed to surface engineering of additive manufactured substrates for enhancing Physical Vapor Deposition (PVD) coating features, and to Life Cycle Assessment (LCA) of research lab processes for innovative materials for energy. In particular, the latter research activity (funded by the Italian National Research Council - Italian Ministry of Economic Development Agreement "Ricerca di sistema elettrico nazionale, piano triennale 2019-2021") regards the LCA of lab-scale PVD processes and LCA of lab-scale production metallic membranes for hydrogen separation, contributing also to the deposition process development.

Up to date, he authored and co-authored (ORCID: 0000-0002-3667-4176) more than forty papers published on peer reviewed scientific journals on the fields of materials chemistry, materials science, and energy, with an h-index of 13 (source: Scopus).