

Curriculum vitae
Prof.ssa Anna Maria Ferrari

Anna Maria Ferrari is Associated Professor of Chemistry at the Faculty of Engineering, University of Modena and Reggio Emilia (Italy). She graduated in Chemistry from the University of Modena and Reggio Emilia in 1993 and she received her Ph.D. in Chemical Science in 1997 from the Universities of Parma, Modena and Ferrara. In 1996 she has been visiting scholar at the Department of Chemistry of Cambridge, The University of Cambridge (UK) and in 1998 she has been visitor scientist at the Swiss Federal Institute of Technology, Lausanne (CH). She is member of the Faculty of the Doctoral School in Industrial Innovation Engineering of the University of Modena and Reggio Emilia. She currently teaches the courses of Chemistry and Life Cycle Assessment in the undergraduate and graduate Courses of Industrial and Management Engineering and Mechatronic Engineering. Member of the Italian Chemical Society, Italian Association of Crystallography, Italian Institute of Science and Technology of Materials, she is serving as reviewer for most important international journals. She is author of more than 100 publications in national and international journals and of about 80 national and international lectures in Congress.

The research activity has been mainly devoted to the structural characterization of inorganic oxides and partially amorphous systems by means of X-ray diffractometry using the Rietveld method in order to provide a qualitative and quantitative knowledge of multicomponent systems. The scientific activity has also been focused on the synthesis and characterisation of ceramic nanocomposites which are applied as catalysis, in the textile sector, materials engineering and others. Her ongoing research efforts aim to improve the planning and management of sustainable processes and products. She has specialised in environmental systems analysis with particular emphasis on Life Cycle Assessment (LCA) as a potential tool for assessing the environmental impacts associated with products and processes. The case studies involve construction materials, waste management, agriculture among other things and have been done in close collaboration with leading groups in the field within several national and international research projects. In particular she developed LCA studies on the ceramic sector in order to find the best compromise between the technological properties of the finished products and the total cost (including externalities) incurred to attain these properties. She is also broadening her scope towards integrated methodologies by capitalizing the complementary strengths of different methods used by industrial ecologists and economists. The methodology adopted is systems perspective, integrative, and holistic approach for sustainability assessment which attempts to link life cycle thinking methods such as LCA, LCC, and S-LCA in a LCM perspective.