Luisa Barbieri graduated in Chemistry in 1990 at the University of Modena (Italy), got her PhD degree in Chemistry in 1994, covered the role of Assistant Professor at the current Department of Engineering "Enzo Ferrari" (DIEF) of the University of Modena and Reggio Emilia, since 1st November 2001 she is Associate Professor in Chemistry (Chemical foundations of technologies, SSD CHEM-06/A) at the same Department and in 2014 she had the qualification to the first rank in 03/B2 sector.

Her teaching activity is carried out on courses of Chemistry and Environmental Chemistry for DIEF and Military Academy of Modena. She has performed teaching activity into National School (National School on Wastes, Rimini 2004; Summer School of Advanced Studies "Waste recycling and new building materials: innovative technologies from geosciences and engineering", Ferrara 2006; SAMWARE Strategies, Applications and Methodologies of WAste Recovery, Rimini 2008; National School on Wastes, Taranto 2011 and 2014).

She is responsible for several theses, grants, Ph.D. and research allowances. She is member of UNIMORE PhD Programme in Civil, Environmental and Materials Engineering. She was member of the steering committee of the Division of Environment and Cultural Heritage Chemistry of the Italian Chemical Society for the triennium 2013-2015.

She has been, and is still, coordinator of a great number of national and international research projects, with a wide feed back on the national and international industry. She has been scientific chief for the University of Modena and Reggio Emilia in the regional environmental laboratory named LITCAR (Laboratorio Integrato Tecnologie e Controllo Ambientale nel ciclo di vita dei Rifiuti) from 2005 to 2007, after called ENVIREN (Environmental Regional Network) from 2008 to 2010.

She participated to the constitution of the National Research Group on Geopolymers during the Workshop "I Geopolimeri" in Modena on 12 November 2008.

Her research activity, supported by collaborations with national and international companies and universities/research centres, is focused on the study of chemical fundamentals of product and process in particular as regard the inorganic chemistry. Starting from both natural raw materials and waste/by-products, she works on the study of the materials chemistry (glass, glass ceramics, ceramics, composites, geopolymers, lightweight aggregates, fertilizer systems, etc.), following their design, application of related consolidation technologies (hot: vitrification, devitrification, sintering, plasma; and cold: geopolymerization, cementification) and the characterization and reactivity of the final materials, as well as the development of inertization, reduction of odorous substances and waste material recovery processes.

She is author of more than 210 publications in international and national journals (SCOPUS: 188 documents; almost 5000 citations; h index=42, June 2024), 2 patents still valid and several lectures in national and international Conferences.

Particularly important is her activity in the environmental sector: chief for the University of Modena and Reggio Emilia in the regional environmental laboratory named LITCAR/ENVIREN from 2005 to 2010; coorganizer of international and national events (Workshop "Engineering and Circular Economy: the Road to Sustainability, 2021, Spain; Congress "Engineering for the environment and the territory", 2011-14-17; International Workshop "Research and Innovation for a Sustainable Waste Management", 2015, Italy); charter member of University spin-off EcoTecnoMat srl, active from 2011 to 2015, member of the Technical Committee for the Certification of the ECOPED/RIDOMUS Service in collaboration with TUV Italia for the control of the WEEE collection, transport and treatment chain (group 4), since 2021.

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