

Giovanna Vezzalini graduated in Geology at Modena University, where she has taught and worked in research ever since. Currently is Full Professor of Mineralogy at the Department of Chemical and Geological Sciences.

She taught in the courses of Materials Engineering and Science for Cultural Heritages, at present teaches Mineralogy to the students of Geology.

Prof. Vezzalini has been the Chief of the PhD School "Earth System Sciences: Resources, Environment and Cultural Heritage" of Modena and Reggio Emilia University and currently is the Director of the PhD Course "Models and Methods for Materials and Environmental Sciences - M3ES".

In 2011 she was responsible of the European Long Learning Program (LLP) ERASMUS "Cultural Heritage Materials: from diagnostics to conservation- CHERMAT".

Giovanna Vezzalini has been president of the Gruppo Nazionale di Mineralogia (GNM) (2004-2006). She was for several years in the scientific committee of the Associazione Italiana Zeoliti (AIZ) and organized numerous workshops and annual schools. She was in the International Scientific Advisory Board of many National and International Mineralogical and Zeolite Congresses.

Giovanna Vezzalini is member of several national and international societies of Mineralogy, Crystallography, Microscopy and Archaeometry and reviewer for the main journals of the field. She was and is scientific leader of national and international research project (Progetto Nazionale Ricerche in Antartide, FIRB, PRIN, European Synchrotron Radiation Facility).

The main topics research deals with the crystal-chemistry of silicates, in particular of zeolites, natural and synthetic microporous materials which can host in their cavities water, cations and organic molecules. These materials are widely utilized in the chemical industry as catalyzers, molecular sieves, ionic exchangers and dehydrating, as soil correctors and in water and gas purification. The behavior of zeolite materials under high temperature and pressure has been widely and deeply investigated, due to the impact of these thermodynamic parameters on their structures, stability, and consequently their applications. These phases have been characterized using X-ray diffraction on single crystal and powder, by conventional and synchrotron radiation, and using a combined experimental-calculation approach (ab-initio Molecular Dynamics Simulations).

Recently Prof. Vezzalini studied the production and characterization of nano-structured systems confined in microporous matrices through high pressure. In the last years Giovanna Vezzalini applied her knowledges on natural and synthetic materials to the study of ancient glass and ceramic. She has published more than 140 scientific papers on the principal mineralogical international journals.