

Curriculum Vitae et Studiorum

Ernesto Mesto, born in Bari on 08/30/1973. Graduated in Chemistry on 1999 at the University of Bari with 110/110 score.

From April 2004 to June 2005 research fellow at the Geomineralogic Department of the University of Bari on the topic: characterization of micas by X-ray Photoelectron Spectroscopy (XPS).

Since June 2005, researcher (SSD: GEO/06) at the Geomineralogic Department of the University of Bari (now Department of Earth and Geoenvironmental Sciences).

Member of the Teaching Board of the Earth Sciences doctoral program, now GEOSCIENCES, for the cycles: XXVI, XXVII, XXVIII and XXIX

Research activity mainly focused on crystallographic characterization of crystalline solids via crystallographic (X-ray crystallography) and spectroscopic (XPS) methods. Scientific publications cover the following topics: 1) the crystal chemical characterization of silicate minerals, with special focus on substitution mechanisms, structural distortions, comparative crystal chemistry; 2) relationships between crystal chemistry and geologic environments/petrogenetic conditions; 3) structure and disorder of rare mineral phases; 4) structure and solid state transformation of natural and synthetic phases via X-ray powder diffraction at variable temperature conditions; 5) structure determination of synthetic chemicals by single crystal X-ray diffraction. The main analytical techniques employed are: X-ray Photoelectron Spectroscopy, Single Crystal X-ray Diffraction and Powder X-ray Diffraction.

E.M. research belongs to the ERC sector PE10_10 (Mineralogy, petrology, igneous petrology, metamorphic petrology) and PE10_11 (Geochemistry, crystal chemistry, isotope geochemistry, thermodynamics). E.M. is author/coauthor of 47 ISI/SCOPUS indexed scientific papers and referee of several international research journals. Guest Editor of the Special Issue "Speciation and Characterization of Transition Metals and Rare Earth Elements" for the scientific Journal Minerals.

The main scientific subject areas are: Earth and Planetary Sciences, Material Science, Chemistry and Environmental Science. H-index 14 and 591 total citations by 501 documents.