**CURRICULUM VITAE**

Lorenzo Toscani, Associate Professor (since 2001) of Geochemistry and Volcanology, Department of Earth Sciences, University of Parma, teaches Geochemistry and Volcanology. He obtained his University Degree magna cum laude in Geology in 1981 at the University of Parma where he became Research Assistant in 1983. He organized the Laboratory of Gamma-Spectrometry for the Instrumental Neutron Activation Analysis (two analytical lines with Ge-Li and Ge-intrinsic detectors), and the laboratory of X-Ray Fluorescence (XRF) of the Department of Earth Sciences of the University of Parma. Formerly his research has been addressed to the petrogenesis and geochemistry of isotopes and elemets of magmatic rocks of several affinities (ultrapotassic, calc-alkaline, shoshonitic, ophiolitic basalts) in order to define the genesis of the magmas and their evolution (fractionation, mixing, crustal assimilation) during the ascent to the surface. Besides he investigated the alteration of the rocks and the chemistry of the groundwater and saline waters of the Po Plain and of the Northern Apennine. He took part in several national research projects.

**Research themes**

1-The origin and evolution of groundwater and salt waters as inferred from chemical and isotopic compositions: water-rock interaction, mixing and evaporation processes.  
2-Alteration of the rocks and mobility of the chemical elements: mass balance, neoformation minerals and physical-chemical characters of the circulating fluids  
3-Mineral genesis in hydrothermal environment: the origin of gold-bearing quartz veins of orogenic environment and of the Mn-ore deposits associated to ophiolite rocks.  
4-Petrogenesis of alkaline volcanic rocks and carbonatites.

**PUBLICATIONS**

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