

Curriculum vitae

Giovanni B. Piccardo obtained the Degree in Geological Sciences in 1967 at the University of Genova. He became Assistant Professor in 1969 and Encharged Professor in 1971 at the University of Genova.

Giovanni B. Piccardo is Full Professor of Petrology since 1980, at the University of Florence in the period 1981-1983, and at the University of Genova from 1983 to present.

Teaching

Giovanni B. Piccardo, starting from 1971, has given courses, as Encharged and Full Professor, of Crystallography, Geochemistry, Petrography, Igneous Petrology, Mantle Petrology and the origin of basaltic magmas, Petrogenetic Processes and Geodynamic Settings.

Organization

In the second half of the eighties, he participated in the "Italian National Committee for the International Lithosphere Program".

In the period 1983-1986 he has been the Dean of the Institute of Petrography of the University of Genova.

In the period 1995-2000 he has been the Scientific Coordinator of the Scientific-Disciplinary Area of Earth Sciences of the University of Genova.

Research

Giovanni B. Piccardo, starting from 1968, developed a continuous research activity in the fields of Petrology and Geochemistry on the following topics:

- 1) ophiolites (basalts, gabbros and mantle peridotites) from the Northern Apennine and the Voltri Massif (Ligurian Alps), to recognize the primary compositional characteristics, the genetic processes and the geodynamic setting of formation;
- 2) metamorphic ophiolites, recrystallized at high-pressure conditions (eclogitic meta-gabbros, antigoritic serpentinites and garnet meta-peridotites), from the Voltri Massif and the Western Alps, to investigate the mineral reactions and the chemical exchanges which characterize the thermo-baric conditions of the peculiar subduction environment of their evolution;
- 3) mantle peridotites from oceanic and extensional settings, actual (peridotites from the Zabargad Island - Red Sea) and fossil (ophiolitic peridotites of the Alpine-Apennine system: Lanzo - Western Alps; Erro-Tobbio - Ligurian Alps; Liguride Units - Northern Apennine; Monte Maggiore - Corsica) and mantle xenoliths in alkaline lavas (Assab - Eritrea).

From the early seventies, he organized and participated in numerous campaigns for studying and sampling ophiolitic and peridotitic rocks, mantle xenoliths in alkaline lavas, eclogitic rocks and mafic-ultramafic intrusive rocks in: Western Alps, Northern Apennine, Newfoundland Island (Canada), Cyprus Island, Russia, Ucraina, Finland, Groenland, Egypt, Red Sea, Saudi Arabia, Yemen, Somaliland, Oman, Japan.

In the period July-December 1972 he spent a NATO Science Fellowship at the Department of Geology, the University of Western Ontario, London (Canada).

In the period 15-24 September 1972, he participated, under invitation as an expert, to the "GSA - Penrose Conference on Ophiolites, Oregon-California", where the modern interpretation of the ophiolite associations as fragments of fossile oceanic lithosphere as been established.

In the years 1974-1976 he participated in the: "Italy-USA Cooperative Project on HP-LT metamorphism in the Western Alps (Coordinators: R.G.Coleman, G.W.Ernst, G.V.Dal Piaz), for the study of the eclogitic rocks of the Voltri Massif (Ligurian Alps).

The studies on lithospheric peridotites, which represent a major part of the scientific production and the predominant part of the more recent studies, aim to deepen the knowledge on the compositional characters of the lithospheric mantle, to investigate mantle processes recorded in lithospheric peridotites and to reconstruct the tectonic-metamorphic and magmatic evolution of the mantle lithosphere, the processes of diffuse porous flow of asthenosphere-derived melts within the lithospheric mantle, the processes of interaction between rising asthenospheric melts and the lithospheric mantle column (i.e. the processes of lithosphere-asthenosphere interaction), the depletion, refertilization and impregnation processes produced by the reactive percolation and by the interstitial crystallization of the asthenospheric melts, the processes of thermochemical and thermomechanical erosion of the mantle lithosphere.

The petrologic, geochemical and isotopic studies on the ophiolitic peridotites of the Alpine-Apennine system (representing fragments of the lithospheric mantle of the oceanic basin of the Jurassic Ligurian Tethys) aim to investigate the space-time relationships between the exhumation evolution of these rocks towards the oceanic floor and the "magmatic" processes, i.e. the reactive percolation and impregnation of the extending and rising mantle lithosphere and the asthenospheric melts. These processes occurred during the passive extension of the lithosphere leading to the opening of the oceanic basin and caused important compositional and petrological modification of the mantle lithosphere: ongoing researches, also by means of numerical and analogical modellings, aim to understand the role of these processes in the transition of the extensional system from lithosphere passive extension to oceanic spreading.

Giovanni B. Piccardo is author and co-author of about 250 scientific publications, has been and is Convener of National and International Congresses, is Editor of Special Issues of National and International Magazines, is Referee of National and International Magazines.

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