VOLCANOGENIC MASSIVE SULPHIDE DEPOSITS IN SOUTHERN CRYSTALLINE BASEMENT OF EASTERN ALPS (NE ITALY)

P. Frizzo

Dipartimento di Mineralogia e Petrologia, Università di Padova

Numerous massive sulphide deposits (e.g. Val Imperina, Siror-Terre Rosse, Val Sella, Calceranica, Vetriolo) are located within a ENE-WSW belt some 10 km wide and about 100 Km long in the Southern Crystalline Basement of the Eastern Alps, from Agordo to Trento. They are conformable stratiform orebodies 1-4 m thick and variable in tonnage between 1-3 Mt; they are hosted by Ordovician-Silurian volcanosedimentary series including phyllites and quartzitic phyllites (locally graphitic), with interbedded metarhyodacitic ignimbrites derived from crustal anatexis and a few metabasites with intraplate alkali-basalt affinity. The rocks and mineralisation suffered greenschist facies metamorphism during the Hercynian Orogeny. The various orebodies are commonly zoned and have similar paragenesis with pyrite, sphalerite, galena, chalcopyrite and arsenopyrite, minor pyrrhotite, tetrahedrite, sulphosalts, magnetite and rare electrum. Quartz, carbonates, chlorite and sericite are common gangue minerals.

Chemical analysis of several composite samples indicate Zn from 0.05% to 9.2%, Pb from 0.03% to 6.5%, Cu from 0.02% to 4.9%. The gold content grades up to 3.6 ppm: the highest concentrations are more frequent in orebodies of the western sector of the belt. Positive correlations are mainly found between gold content and Co (0.91), Fe (0.80), Sb (0,80) Cu+Zn+Pb (0.79), Sn (0.75).

SUPERPOSITION OF HERCYNIAN AND ALPINE DEFORMATIONS IN THE MALAGUIDE COMPLEX (BETIC CORDILLERAS, SPAIN)

J. Galindo-Zaldivar, F. González-Lodeiro & A. Jabaloy

Departament of Geodynamic, Granada University, Campus Fuentenueva s/n 18071 Granada (Spain).

The Maláguide Complex, located in the Internal Zones of the Betic Cordilleras, is made up by Palaeozoic metamorphic and sedimentary rocks that are overlied unconformably by Triassic to Oligocene sedimentary rocks. Below this sequence there are gneisses and, at the bottom, peridotites. In the Maláguide units of the eastern Betic Cordilleras only the upper parts of the sequence is represented. The study of the structures that affect to the Palaeozoic and Mesozoic rocks, in the Montes de Málaga area, allow us to establish the main features of the alpine and hercynian deformations.