

THE NEWS EVIDENCE OF PRECAMBRIAN ISLAND ARC IN THE PAMPEANAS ORIENTALES TERRANES, ARGENTINA.

Carugno Duran, A. and Ortiz Suarez, A. Universidad Nacional de San Luis. Chacabuco 917. San Luis (5700). Argentina

Amphibolites are rocks of high petrologic interest as they normally derived from igneous protoliths of tholeiite affinity that in many cases are recognized as fragments of old oceanic crust. This study includes geochemical interpretations about the metabasites (amphibolites) of the Sierra de Socoscora as a part of the Pampeanas Orientales Terranes. The Sierra de Socoscora consists of a high grade metamorphic basement of Precambrian to early Paleozoic age, characterized by migmatitic, amphibolites, marbles and skarns, with a N-S trend penetrative foliation. The amphibolites bodies are parallel to the regional foliation, are composed of plagioclase (anorthite 70) + amphibole (hornblende rich in the Fe and Mg) + titanite 6 garnet 6 biotite 6 quartz, with amphibole and plagioclase constituting 90 vol.% of the rock. The metamorphic textures are granoblastic and massive and the porphyritic and ophitic are igneous relictic textures. Plagioclase, amphibole and garnet have been analysed by electron probe microanalysis to constrain P-T conditions during metamorphism and the estimated temperature and pressure is of 650 to 750 °C and 0,6 to 0,7 Mpa. The geochemistry characteristics of this rock have been plotted in the different tectono magmatic discrimination diagrams of immobile trace elements and the results have been interpreted as island arc rocks type of Lesser Antilles.