

**PGE mineralisation in mafic-ultramafics around Bababudan-Nallur lineament, Western Dharwar Craton, Karnataka, India**

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In western Dharwar craton mafic-ultramafic rocks of various sizes from small pods to schists belts occur. An attempt has been made to carry out systematic geochemical studies to find out possible occurrence of Platinum group elements in the mafic-ultramafic enclaves around the major Arsikere-Tavarkere lineament and in the surrounding gneissic terrain adjoining the Bababudan-Nallur shear zone. The MUMF pods consist of meta-peridotites, tremolite-actinolite schists, serpentinites, amphibolites and metabasalts with gabbro dykes. The rocks have undergone green schist to amphibolites facies metamorphism. Indications of nickel bearing minerals like millerite enclosed in pyrite has been established using SEM studies. Distribution of chromite grains in amphibole and associated matrix was noticed. The overall major element composition of MUMF rocks show high MgO (22-40%) and total iron (8.34 -10.01%) contents and majority of the samples reflect komatiitic affinity. High contents of Ni and Cr (~3000, 2800 ppm) were obtained in some of these rocks. The Pt and Pd values range from 300- 50 ppb and appreciable amounts of gold also is present ( up to 2-3ppm) The detail survey have to be carried to ascertain the potentiality for PGE/ Ni-Cr mineralization to understand any lineament controlled mineralisation.

**Freches Quartz Deposit interpreted as very low evolved Granitic Pegmatite (Northern Portugal): preliminary results**

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Since the identification of the Freches vein, this quartz deposit was considered as a hydrothermal quartz vein but recent investigation allowed us to consider it as a pegmatite dyke. It is located in the Central Iberian Geotectonic Zone, part of the Hesperic massif, intruded in a very coarse-grained monzonitic granite (often porphyritic), near the contact of a very coarse-grained monzonitic granite (often porphyritic) and a medium to fine-grained, porphyritic monzonitic granite in the south and in ordovician metasediments in the north. This pegmatite exhibits N030°E orientation, parallel to the main fault(s) that affect the region. Field observations allowed us to identify quartz, k-feldspar, biotite as the main mineral phases. Metric k-feldspar crystals occur near the contact with the very coarse-grained monzonitic granite and it is also possible to observe 30 cm biotite sheets in the quartz quarry. Chemical analysis were obtained by X-Ray Fluorescence (XRF) using pressed samples instead of fused samples. The major elements analysed were Si, Al, Mg, Ca, Ti, Na, K, P and the minor elements were Rb and Sr. They confirm low values in Rb in k-feldspars (146 ppm) and quartz (14 ppm).

With a K/Rb ratio so high as 700, we can conclude that the Freches Pegmatite is a very low evolved barren granitic pegmatite, contrasting with surrounding veins.