

deposit. In Korkora-1 samples the common minerals are: magnetite ( $\text{Fe}_{2.92}\text{O}_4$ ), hematite ( $\text{Fe}_2\text{O}_3$ ), goethite ( $\text{Fe}^{+3}\text{O}(\text{OH})$ ), clinochlore ( $(\text{Mg},\text{Fe},\text{Al})_6(\text{Fe},\text{Cr})_4\text{O}_{10}(\text{OH})_8$ ), and hydrohematite ( $\text{Fe}_2\text{O}_3,\text{xH}_2\text{O}$ ). Ore microscopy studies: in these studies we found magnetite in Hamehkasy-1 deposit which consists of high exolution but in Korkora-1 exolution in magnetite is rare. Magnetites in samples of each deposit were characterized by (EPMA) studies.

## Camptonites from the Ditrău Alkaline Massif, Romania: Geochemistry and petrogenesis

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Camptonite dykes, 20 cm to 2 m wide, occur at the northern part of the Ditrău Alkaline Massif [DAM] (Eastern Carpathians, Romania), intersecting granitoids, syenitoids and hornblendites. Based on their low  $\text{SiO}_2$  and high alkali,  $\text{TiO}_2$ , LILE and LREE content, high  $\text{Yb}/\text{Nb}$ ,  $\text{Ti}/\text{V}$ ,  $(\text{La}/\text{Yb})\text{N}$  ratios,  $\text{Zr}/\text{TiO}_2$  vs.  $\text{Nb}/\text{Y}$  distribution, nepheline and olivine normative composition they are defined as silica- and alumina-undersaturated, alkaline basic rocks and basanitic in composition. The Mg#, Cr, Ni, Co and Sc concentration, and low S.I. and high D.I. values of the DAM camptonites indicate that they could be fractionates of primary melts. Based on strongly incompatible trace element composition the DAM camptonites derive from an OIB mantle source containing HIMU and EM I mantle components. The high LREE and low HREE content of the DAM camptonites ( $\text{La}/\text{Yb}=15-24$ ) may indicate both a metasomatised mantle source for the magma generation and a garnet lherzolite source by very low degrees (~1-2 %) of partial melting. The latter mean that the camptonite magma must have originated at a great depth, around 60-80 km.

## Ophiolites in the Dinarides and Hellenides: the contribution of radiolarian biochronology to the understanding of their formation and emplacement

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Mesozoic radiolarian biochronology has been essential in the understanding of the timing of formation and emplacement of remnants of ancient ocean basins in the Alpine-Mediterranean orogens. The first descriptions and biochronologic assessments of radiolarian faunas of the late 1970ies in the Hellenides and Dinarides depended on biostratigraphic calibrations from Deep Sea Drilling Sites and on the first zonations established in Western North America, that were not adequate for the area. In the early 1980's, as the first European Jurassic-Cretaceous radiolarian zonations were established, the dating of radiolarian-bearing sediments associated with basalts and ophiolitic mélanges became possible. The age assignments have been continuously refined since. The discovery of Triassic radiolarites associated with MORB-like basalts in the late 1980's considerably changed the interpretations. Now, a wealth of biochronologic work has been published in the last 3 decades. For this report we have revised data from NW-Croatia, Serbia, Albania, Northern Greece, Othris, Evvia, Argolis, in an attempt to produce a coherent picture of all this data.

Radiolarian biochronology established in oceanic sediments associated with ophiolite belts in the Dinarides and Hellenides reveal 3 age clusters: Middle to Late Triassic, Middle Jurassic and Late Middle to Late Jurassic. Early Jurassic ages are extremely rare. Triassic ages have been found in oceanic sediments, chiefly radiolarites, associated with MORB-like