

Opaque Mineralogy of the Late Precambrian Ophiolites from Bou Azzer Area, Anti-atlas, Morocco

Authors : Yaser Maher Abdelaziz Hawa

Abstract : The Basic-ultrabasic rocks of Bou Azzer ophiolite complex in the Anti-atlas , Morocco enclose some oxide and sulfide minerals as disseminated traces. The oxide minerals show a wide variation in composition ranging from Cr-free. Titanomagnetite and ilmenite in the chilled margin gabbro of the upper part of the ophiolite sequence to Al-rich chromian spinel and pure magnetite enclosed in the serpentinized peridotite in the lower part of the sequence. Five mineral assemblages have been distinguished depending on the rock type of the ophiolite sequence. 1-Gersdorffite + Chalcopyrite + Al-Mg rich chromian spinel + pure magnetite, hosted by serpentinized peridotite. 2- Pyrite + Chalcopyrite, enclosed in metagabbro and overlying the ultrabasic cumulates. 3- Al-Fe rich Chromian spinel with rims of Al -rich chromian magnetite enclosed in wherlite. 4- Titanomagnetite replaced by sphene enclosed in marginal Gabbro. 5- Pyrrhotite exsolving Pentlandite + ilmenite + Ilmenite + Al- rich Chromian spinel + magnetite enclosed in fresh olivine olivine in the upper part of the ophiolite sequence.

Keywords : opaques, ophiolites, anti-atlas, morocco

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