

Chemical mineral and petrogenesis Sorkh band Ultramafics of Kahnuj-Roudan Ophiolite belt (Nazdasht area), example of refractory residual alpine peridotite

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Abstract: Part of the Ultramafic Sorkh-Band complex along the Kahnuj, Roudan, Minab Ophiolite belts Hormozgan Province at Nazdasht area, contain harzburgite, dunite, and serpentinit (with dominance harzburgite). The major mineral in these rocks included olivine, orthopyroxenes and minor mineral such as Spinel. Mesh and granoblastic texture is dominance in these rocks and tectonic pressure effect can be seen as kink band and undulose extinction within the minerals. Results from Electron Microprobe analysis of minerals show olivine with (Fa 90.18-93.6) forsterite composition and rich of magnesium that belong to Alpine type. Also orthopyroxenes show (En 32.8-95.2) enstatite composition and spinel Cr[#] (53.9-71.02) have chrome. The harzburgites have high Mg[#] (97.78-84.65) but are poor of Al₂O₃ (0.71-0.34) and Ca (0.69-0.45), which can be said these rocks are refractory waste that have been remain after the partial melting of more than 25% percent. Low amount of Al and Ti (0.01-0.04) in spinel existence at the Nazdasht harzburgites consider to be characteristic of supra-subduction zone peridotites.

Keywords: Harzburgite; ultramafic; Nazdasht; Sorkh-Band; Roudan.

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