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Geochemical distribution of major, trace and rare elements in chromite ores of Neyriz ophiolite

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Abstract: The chromite deposits in the Neyriz area have lenticular and sometimes vein-like shape which are replaced in serpentinized dunite and harzburgite. Chromite and serpentinized olivines are major minerals and hematite and magnetite are minor minerals in the chromitic ores. Except chromite, other minerals have secondary origin that are related to serpentinization procceses. Whereas along with chromite, only a few of minerals such as pentlandite have primary origin. Native copper and sulfides such as chalcopyrite and bornite have been formed secondarily in microfracturs of chromite grains filled by serpentine. The results of the geochemical data from chromite ores are indicated by the type of chromite in alpine. Despite being the most abundant element in LREE relative to HREE, only six elements Dy, Eu, La, Lu, Nd, and Y are the most common among other elements. Finally, chromite ore in the area is economic but the frequency of trace elements is minimal and non-economic.

KeyWords: *Neyriz ophiolite; Alpine chromite; serpentinization; trace elements.*

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