

## Mineralogy and mineral chemistry of serpentinites and metalistvenites in the Bayazeh ophiolite (NE of Isfahan province)

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**Abstract:** The Bayazeh ophiolite, with probable Paleozoic age, is cropped out along the Bayazeh fault and located in the eastern margin of the Yazd block (Central Iran). In the field, this ophiolite consists of serpentinitized peridotites, metagabbro, ultrabasic metamorphosed dikes, metapicrite, serpentinite and metalistvenite. Development of serpentinitization process in the Bayazeh mantle peridotites has been changed peridotites to serpentinitized peridotite and serpentinite. Transitional transformation of serpentinite to metalistvenite is obvious in the field. Field and microscopic studies show that the metalistvenites in the Bayazeh ophiolite have been produced by regional metamorphism from old listvenites. After old listvenite formation, during occurrence of regional metamorphism, carbonate listvenites changed to carbonate metalistvenites and silica-carbonate listvenites changed to silica-carbonate metalistvenites with abundant tremolite and actinolite. Chemistry of Cr-spinels in the Bayazeh serpentinites shows that they belong to depleted ophiolitic mantle peridotites.

**Keywords:** *Ophiolite; Cr-spinel; metalistvenite; Central Iran; Bayazeh.*

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