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Mineralography and Mineral-chemistry of sulfide and oxide lenses in Misho mafic complex, Southwestern of Marand town, East-Azarbaidjan

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Abstract: The Mafic complex of Mishow is exposed in the north-western part of Iran, in the East Azerbaidjan Province (SW of Marand). Two different types of mineralization, sulphides and oxides, occur in the intrusion complex. The sulphide ore bodies are mainly composed of pyrrhotite accompanied by chalcopyrite, pentlandite, sphalerite, pyrite and troilite. The oxides mineralization consists of ilmenite and rarely magnetite. Primary sulfides are replaced by pyrite and violarite during alteration states. Thermometry investigation, based on exsolution texture of chalcopyrite-sphalerite, suggest that sulfide zone probably formed at temperature higher than 400°C. The Co/Ni values of sulfides propose that they formed in a magmatic immiscible sulfide Ni-Fe-Cu system.

Keywords: *mafic rocks; sulfide mineralization; microprobe; immiscible; Misho; Marand.*

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