

Petrography and petrology of A-type granitoids of Eastern Misho mountains with emphasis on their geodynamic importance

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Abstract: Granitoidic bodies of the eastern Misho mountains (SW Marand – East Azerbaidjan) have intruded into Kahar Formation and mafic – ultramafic rocks of Misho mountains and has faulty contact with Triassic carbonate deposits. The composition of these bodies ranges from quartz monzonite to granite and alkali-granite and it is cut by porphyritic granitic and diabasic dykes. The main minerals of these bodies are perthitic alkali feldspar, quartz and Na-rich plagioclase, accompanied by lesser amounts of biotite and amphibole. In this regard, these bodies belong to hypersolvus granitoids and A₂ sub-group of A-type granitoids. The parental magma of these bodies has calc-alkaline to shoshonitic characteristic and show positive anomalies of LILE and LREE, and obvious negative anomalies of Ba, Eu, and HREE. These bodies have emplaced in a post-collisional tectonic setting related to tensional movements after Hercynian orogenic phase and have formed by melting of crustal rocks.

Keywords: *Misho mountains; A-type granitoid; Hypersolvus; Hercynian; Post-collisional.*

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