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Mineral chemistry, petrogenesis of metapelitic rocks of metamorphic - igneous Shotor-Kuh complex (SE Shahrood)

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Abstract: Late Neoproterozoic (548-579 million years ago) metamorphic - igneous Shotor Kuh complex is cropped out in SE Shahrood, consist of a various range of rocks including metabasite, metapelite, metagraywake, metapsammite and metacarbonate. Metapelites include phyllite to gnessis and migmatite. Metamorphism intensity in the highest degree, progressed to anatexy and formation of granitic melts. Thermobarometery results of metapelites can be correlated by the greenschist to amphibolite facies (T= 457-641 °C and P= 6-13 Kbar). According to the results, The primarily sedimentary sequences (prtolith of Shotor-Koh metamorphic - igneous complex) formed during intracontinental extensional- rifting regim in the sea- ocean basins. These sea- ocean basins, have been closed during Cadomian orogeny event, metamorphosed and consist of tectonic melange or accretionary prisms which thrusted on the neghibours continental crust.

Keywords: *metamorphism; thermobarometery; Shahrood; Shotor-Kuh; Cadomian; metapelite.*

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