

**ECLOGITE AND ECLOGITE - LIKE ROCKS
OF THE OPHIOLITE BELT OF ARMENIA**

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The ophiolite belt association in the territory of Armenia is a part of the Alpine-Himalayan folded mountain belt. Intrusive rocks of mafic and ultramafic composition are associated with the ophiolites. Simultaneously with the ophiolites, the intrusive rocks were formed in a zone being the Tethys oceanic basin of a riftogene trough type in the Jurassic time, accompanying by formation of rift with new ophiolite (oceanic) crust and exhumation of mantle material upward to the Earth's surface. High-P / T laboratory experiments in combination with petrography and mineral analysis of mafic / ultramafic intrusive rocks, their serpentinised variety and major accessory minerals in glaucophane - almandine facies show a broadband grade of metamorphism (TATEVOSYAN, 1951, ABOVIAN, 1982; GRIGORIAN et al., 2003, 2004; GRIGORIAN & ABOVIAN, 2004). Some results of studies on various types of eclogite - like rocks: eclogites, eclogite facies, amphibole garnet schist, as well as some allied country rocks of different structural and tectonic settings within the ophiolite belt of Armenia are discussed in present paper. Field works, petrological / SEM / TEM / microstructural analysis and standard chemical and spectral analysis were carried out to study considered materials. Most of units of pale-pinkish to dark-red garnets with almandine prevalence represent the variety of greenschist-to-eclogite, glaucophane-almandine foliated metamorphic facies and gabbro-amphibolite facies, up to one-centimetre size, with visible weathering effects. The studies show a range of low-to-high grade metamorphism for gabbroid rocks, amphibolites, greenschist facies, accompanied by metasomatism and retrograde metamorphism in some cases, and correlate with Sr / Ba, K / Ar, U / Pb, Sm / Nd aging measurements as well as with the report on microdiamonds found in some rocks of ophiolite melange in Armenia (GEVORKYAN et al., 1976). Present results demonstrate complexity in geological situation and geodynamics of the Earth's crust in Armenia.

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