

SHORT NOTE ON POLYPHASES Pd-Pt-Te MINERALISATIONS WHICH IS DETERMINED IN RUTILE BEARING BERIT METAOPHIOLITE CHROMITITES IN KAHRAMANMARAŞ

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ABSTRACT.-The Pt-Pd bearing mineralisations and rutiles are firstly determined in the transition zone (moho-zone) chromitite deposits of the Berit Metaophiolite Massif (BMM) in Kahramanmaraş in our country with this study. The data of electron microprobe analyses of the chromitites indicate that most of the samples are high-Al chromitites with Cr# numbers between $(100 \times \text{Cr}/(\text{Cr}+\text{Al}))$ 29-37. The rest of the samples are high-Cr chromitites, with Cr# numbers between 60-70. Microscopic examination and electron microprobe analyses of the PPGE and IPGE- enriched samples reveal platinum-group element minerals (PGM) as euhedral (10-15 μm) inclusions in the chromite grains. The PGM hosted by IPGE-rich high-Cr chromitites are primary inclusions of laurite, irarsite, Ir sulphide and erlichmanite. Very small Pd-Pt telluride phases (merenskyite-moncheite) are hosted by polyphase sulphide droplets in the PPGE-rich chromitites of BMM. Considering the different chemical compositions of both chromitite and PGM at Berit, suggested that their parent melts derived from two different magma sources. The presence of hydrosilicate inclusions and the depletion of compatible elements in high-Cr chromitites of BMM suggested that they resulted from higher degrees of partial melting of the upper mantle, probably from second stage melting of a residual source. The Berit chromitites could have formed both from magmas related to the initial rifting process and to subsequent supra-arc magmatism prior to obduction of the host ophiolite. Because of having in different chemical compositions of the Berit chromitites it has been suggested that they could have generated from both of magmas related with the supra-arc magmatism (SSZ) by partial melting process due to metasomatism of oceanic lithosphere (high-Cr chromitites) and subsequently by changing parent magma composition (the high-Al chromitites) in back arc basin environment.

Key words: Kahramanmaraş, Berit, Metaophiolite, Chromitite, Rutile, Pd-Pt-Te