GEOCHEMICAL INVESTIGATION OF PRECIOUS AND HEAVY METALS IN THE PLACERS BELONGING TO BOZKIR OPHIOLITIC MELANGE (BOZKIR-KONYA-TURKEY)

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Three different tectonic units (Geyikdağı, Bolkardağı and Bozkır units) showing different structural, metamorphic and stratigrafic features are available in the investigation area that is located in S, E and SE of Bozkır (Konya-Turkey) in the Middle Taurus Mountains. Determining of mineral enrichments characteristics principally consist of platinum group metals (PGM) and Au derived from the rocks belonging to Bozkər ophiolitic melange, and listwanites and current placers was aimed in this study. 62 placer samples that were collected with random sampling method, analysed for major oxides and trace elements. It was determined that precious and heavy metals concentrate around of the parent rocks in the investigation of placers. It was observed that the concentrations of these metals were decrease as getting further from ophiolitic rocks. It was determined that PGM is found not alone but with Co, Ni, Au, Ti and Cu in different mixing forms, in these placers.

DUNITE-WEHRLITE-CLINOPYROXENITE IGNEOUS ASSOCIATIONS IN CRATONS AND MOBILE BELTS: A COMPARATIVE STUDY

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The dunite-wehrlite-clinopyroxenite association (DWCA) comprises two series: (1) dunite–wehrlite–olivine clinopyroxenite–magnetite clinopyroxenite (kosvite) and (2) dunite–plagioclase-bearing wehrlite–plagioclase clinopyroxenite (tylaite). Terms *kosvite* and *tylaite* (after mounts Kosva and Tylai in the northern Urals) were proposed by L. Duparc in the very beginning of the 20th century. The kosvite series consists of restitic material (dunite, often Cpx-bearing), solidified primary and evolved kosvite melts, olivine clinopyroxenite cumulates, and various mixtures of melts, restites, and cumulates (wehrlites, olivinites, etc.). The tylaite series is a combination of restite (dunite, including Pl-bearing variety), solidified tylaite melts, and tylaites enriched in cumulative olivine and clinopyroxene. Kosvite and tylaite series are considered to be derivatives of lithospheric wehrlite mantle; there is sufficient reason for suggesting that wehrlite sources are products of decarbonation of previously carbonated harzburgite (kosvite series) or lherzolite (tylaite series) [7]. The known DWCA vary in age from Paleoproterozoic (~2000 Ma) to Cenozoic (~20Ma ?) and are localized in both continental cratonic domains and mobile belts.

In the light of new geochronological data, the geological systematics of DWCA proposed in [6] requires a revision. In cratonic setting, three types of DWCA (kosvite series only) are recognized: (**1**) pipes, dikes, and sills composed of dunite, olivinite, kosvite, and magnetite rock that cut through the Bushveld layered complex in South Africa dated at 2054 Ma; (**2**) the unique Guli garpolith in the Maimecha (Meimecha)-Kotui province of the Siberian Craton consisting of dunite (the main body), transitional zone of wehrlite, and the uppermost layer of meimechite; dunite is intruded by kosvite dikes and sills, picrite dikes, and ijolite–carbonatite complex; the above rocks dated at 245-248 Ma are somewhat younger than a peak of flood basalt eruptions (251 Ma) in the Siberian Craton; (**3**) multiple central-type intrusions, where the rocks of kosvite series are combined with younger alkaline aluminosilicate rocks, carbonatites, and phoscorites (Gardiner in Greenland, 60-54 Ma; Jacupiranga in Brazil, 151-134 Ma; Bor-Uryakh, Kugda, etc. in the Siberian Craton, 245-248 Ma; Kovdor in the Baltic Shield, 380 Ma; Phalaborwa (Palabora), South Africa, 2062 Ma, and many others) [6 and references therein].

In mobile belts, DWCA are localized in marginal backarc zones, including (1) the rifts subsequently transformed into Alpine-type ophiolitic sutures and allochthons, (2) uplifts combined with back-