



Preliminary Results of Occurrence and Mineralogical Properties of Opals from Northwest part of Central Anatolia

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The study area, is located in northwest part of central Anatolian, consists of Eskişehir and Kütahya region where are important for finding occurrence of opaline silica mineralization as well as chalcedonic silica mineralization. In this study preliminary results of mineralogical properties of opals from four different area (Sabuncupınar, Belkavak, Gökçekısık and Derekoy), located between Eskişehir and Kütahya region, have been given.

In the Kütahya region, dendritic opal nodules present in Pliocene pyroclastic rocks – Kanoturacı hill and white opals outcrop in stockwork veins with serpentinites in Küçükali hill around Sabuncupınar village. The mainly whitish - blue and gray opal nodules range from millimetres in diameter to about five and ten centimetres in Kanoturacı hill. White opals, called milky opal, are white color and present in veins within serpentinites. The Kanoturacı opal is made up of tiny spheres, the milky opal is made up tiny sphere with fibrous texture based on the SEM. Green opals present in Miocene pyroclastic rocks in Belkavak village. The Belkavak opals are greenish color and having a brecciated appearance. Opals outcrops around Sabuncu pınar and Belkavak villages consist of opal – CT, alpha quartz and, moganite, and a lesser amount of opal - C based on the results of XRD analysis.

In the Eskişehir region, the dendritic opals occur as nodules in volcanogenetic conglomerates of Pliocene age in the Dereyalak area. The Dereyalak opals vary in size from millimetres in diameter to about ten centimetres. Their color are mainly white, beige, greenish, yellowish orange and black. On the other hand, Pliocene pyroclastic rocks are the host rock of opals in Gökçekısık village – Eskişehir. Gökçekısık Opals are mainly colorless, pale shades of yellow, whitish blue and gray colors and display a resinous to sub vitreous luster. Dereyalak dendritic opals consist of opal – CT, opal - C and a lesser amount of alpha quartz and, moganite, Gökçekısık Opals consist of opal – CT and opal - C based on the results of XRD analysis.

Key Words: Opal, opaline phases, Eskişehir, Kütahya, Northwest part of Central Anatolia