

KAŇKITE FROM NAGYBÖRZSÖNY, BÖRZSÖNY MTS., A NEW MINERAL FOR HUNGARY

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The base metal deposit at Nagybörzsöny produced ores for centuries. In the large amount of waste dumps of the mine several secondary minerals have been formed (according to the latest studies, for example 13 sulphates and 4 arsenates). As the main type of sulphides in the mineralization is arsenopyrite one of the most widespread arsenate is scorodite.

However, based on XRD, thermoanalytical, and IR studies a porous, encrusting-like precipitation in the waste disposal of Lower Rózsa adit proved to be kaňkite. The examination data show strong similarity to the results of the examination at the type locality: Kaňk, near Kutná Hora, Czech Republic (CECH et al., 1976). The IR spectrum confirms the presence of a minor amount of sulfate ions. The typical sulfate absorption band at 1072 cm^{-1} is well defined on the absorption curves of kaňkite. The yellowish green, spherical aggregates of kaňkite are maximum 0.5 mm in size. According to the SEM studies, they are built up by thin tabular crystals of 5–20 μm . In a close association with them, scorodite, gypsum and muscovite also appear.

Similarly to the type locality, the kaňkite was formed by the weathering of the arsenopyrite on the waste dump of the mine.

Reference

ČECH, F., JANSA, J. & NOVÁK, F. (1976). N. Jb. Miner. Mh., H(9): 426–436.