

Hollandit a kryptomelan z Poniklé u Jilemnice, Česká republika

Hollandite and cryptomelane from Poniklá near Jilemnice, Czech Republic

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Abstract

At historical iron ore mining site near Poniklá, famous for natrodufrénite occurrence, were described two minerals from the coronadite group (hollandite supergroup) - hollandite and cryptomelane. They are present in cavities and fissures of brecciated iron ore with quartz. Both form of greyish-black to black reniform aggregates with dull to sub-metallic lustre several millimeters thick, covering the areas mostly up to 10 cm². Submicroscopic layers of hollandite are alternating with the same of cryptomelane. Occurrence of minerals from coronadite group was confirmed by the powder XRD, as well as by IRS. Chemical data from EMPA-WDS confirmed presence of both phases with composition close to its end-members, with minor admixture of Ca²⁺, Sr²⁺ a Fe³⁺, in case of hollandite also K⁺. We believe that these minerals were originally described as psilomelane and pyrolusite in 19th century from the Poniklá. Co-existence of iron and manganese oxidic minerals well corresponds to iron-rich residual deposits, where both elements remain fixed in relatively stable minerals and their mobility remains unimportant even during lateritic weathering and carst formation.

Key words: hollandite supergroup, coronadite group, mineralogy, infrared spectroscopy, Poniklá Group

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