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Böhmit a doprovodná zeolitová mineralizace ze Soutěsek u Děčína (Česká republika)

Böhmite and accompanying zeolite mineralization from Soutěsky near Děčín (Czech Republic)

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Abstract

A new locality of böhmite and zeolite minerals, called „Soutěsky above the quarry“, occurs near the quarry „Soutěsky“ on the SW slope of the Hlídka hill, eastward of the Soutěsky village, about 5 km SW od the town of Děčín (Czech Republic). The mineralization is bound to vugs of Cenozoic volcanics. Böhmite forms mostly whitish to brownish hemispherical to spherical clusters up to 5 mm in size. The unit-cell parameters of böhmite, refined from the X-ray powder data, are *a* 2.871 (3), *b* 12.216(9), *c* 3.699(4) Å and *V* 129.7(2) Å^3. Chemical analyses correspond to the empirical formula $(Al_{0.92}Si_{0.06})_{\Sigma 0.98}O(OH)$. The following zeolites have been found in association with böhmite: thomsonite-Ca, phillipsite-K, gismondine, chabazite-Ca and analcime, as well as calcite. Minerals crystallized in following succession: calcite I → phillipsite-K → böhmite → calcite II → thomsonite-Ca → gismondine → calcite III. Independently, (older) analcime and (younger) chabazite-Ca occur. These minerals probably crystallized from low tempered solutions, enriched in Al ions and alkalies, the source of which can be found in altered rock-forming alumosilicates (analcime, nepheline).

Key words: *böhmite, thomsonite-Ca, phillipsite-K, gismondine, chabazite-Ca, analcime, powder X-ray diffraction data, unit-cell parameters, chemical composition, Cenozoic volcanics, Soutěsky – nad lomem, Czech Republic*

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