

<https://doi.org/10.46861/bmp.29.124>

PŮVODNÍ PRÁCE/ORIGINAL PAPER

Hydroxyapofylit-(K) z kamenolomu Těchlovice u Děčína (Česká republika)

Hydroxyapophyllite-(K) from quarry Těchlovice near Děčín (Czech Republic)

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PAULIŠ P, DOLNÍČEK Z, VRTIŠKA L, MALÍKOVÁ R, POUR O, FEDIUK F (2021) Hydroxyapofylit-(K) z kamenolomu Těchlovice u Děčína (Česká republika). Bull Mineral Petrolog 29(1): 124-130 ISSN 2570-7337

Abstract

One xenolith of a contactly metamorphosed feldspar-hydroxyapophyllite hornfels from basaltic volcanite of the active quarry in Těchlovice village near-by the town of Děčín has been investigated. Its main components are represented by K-feldspar and hydroxyapophyllite-(K), which was hitherto reported from a single locality only in the territory of the Czech Republic. It forms grains up to 2 mm in size tightly associated with K-feldspar and subsidiary quartz, pyroxene (aegirine, enstatite-ferrosilite and diopside) and titanite. The unit cell parameters of hydroxyapophyllite-(K), derived from the powder X-ray data, are $a = 8.975(4)$, $c = 15.8371(3)$ Å and $V = 1275.6(5)$ Å³. Chemical analyses correspond to the empirical formula $K_{0.93}Ca_{3.75}Si_{7.87}O_{20}(OH_{0.96}F_{0.04}) \cdot 8 H_2O$. The xenolith originated by a comparatively weak contact metamorphic effect of the basaltic magma to a marly sediment under high partial pressure of H₂O. Among xenoliths of North Bohemian Cainozoic volcanites the rock represents a rarity, which has not been known hitherto.

Key words: *hydroxyapophyllite-(K), xenolite, powder X-ray diffraction data, unit-cell parameters, chemical composition, Cainozoic volcanics, Těchlovice near Děčín, Czech Republic*

Obdrženo 6. 5. 2021; přijato 24. 6. 2021