PŮVODNÍ PRÁCE/ORIGINAL PAPER

Tschernichit, garronit-Ca a doprovodná zeolitová mineralizace z Jehly u České Kamenice (Česká republika)

Tschernichite, garronite-Ca and associated zeolite mineralization from Jehla near Česká Kamenice (Czech Republic)

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Abstract

The Jehla hill (478 m) occurrence is located about 1 km NE from Česká Kamenice, 15 km ENE from Děčín, northern Bohemia, Czech Republic. Thirteen zeolite species were recently determined from cavities of neovulcanite rocks at this locality. The most interesting finds are very rare tschernichite and garronite-Ca. Tschernichite forms clear very tiny dipyramidal crystals with glassy luster up to 1 mm in size. It is tetragonal, space group *P*422, the unit-cell parameters refined from the powder X-ray data, are *a* 12.636(9), *c* 26.6095(4) Å and *V* 4249(3) Å^3. Chemical analyses of tschernichite correspond to the empirical formula $Ca_{0.48}Mg_{0.07}Na_{0.04}K_{0.14}(Si_{6.49}Al_{1.59})O_{16}.8H_2O$. Garronite-Ca forms large, milky-white radial aggregates up to 1 cm in size. It is tetragonal, space group *I*-4*m2,* the unit cell parameters refined from the powder X-ray data are: *a* 9.865(7), *c* 10.2610(6) Å and *V* 998.6(7) Å^3. Chemical analyses of garronite-Ca correspond to the empirical formula $Na_{0.35}K_{0.04}Ca_{3.25}(Al_{6.51}Si_{9.40})O_{32}\cdot 14H_2O$. Other zeolite species detected at this site are analcime, cowlesite, erionite-K, gismondine, heulandite-Ca, chabazite-Ca, lévyne-Ca, natrolite, phillipsite-Ca, stilbite-Ca and thomsonite-Ca. Their descriptions, X-ray powder diffraction data, refined unit-cell parameters and chemical compositions are given in the paper.

Key words: *tschernichite, garronite-Ca, chabazite-Ca, analcime, lévyne-Ca, erionite-K, heulandite-Ca, stilbite-Ca, phillipsite-Ca, gismondine, cowlesite, thomsonite-Ca, natrolite, powder X-ray diffraction data, unit-cell parameters, chemical composition, Jehla near Česká Kamenice, Czech Republic*

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