

# Zeolitová mineralizace z Patevního vrchu u Růžové u Děčína (Česká republika)

## Zeolite mineralization from the Patevní vrch near Růžová near Děčín (Czech Republic)

PETR PAULIŠ<sup>1,2)\*</sup>, LIBOR HRŮZEK<sup>3)</sup>, JIŘÍ SEJKORA<sup>2)</sup>, LUBOŠ VRTIŠKA<sup>2)</sup>, RADANA MALÍKOVÁ<sup>2)</sup>,  
FERRY FEDIUK<sup>4)</sup> A ONDŘEJ POUR<sup>5)</sup>

<sup>1)</sup>Smíškova 564, 284 01 Kutná Hora; \*e-mail: petr.paulis@post.cz

<sup>2)</sup>Mineralogicko-petrologické oddělení, Národní muzeum, Cirkusová 1740, 193 00 Praha 9 - Horní Počernice

<sup>3)</sup>Pobřežní 1016, 471 14 Kamenický Šenov

<sup>4)</sup>Na Petřínách 1897, 162 00 Praha 6

<sup>5)</sup>Česká geologická služba, Geologická 6, 152 00 Praha 5

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### Abstract

A new occurrence of zeolite mineralization with chabazite-Ca and stilbite-Ca has been discovered in a small mining trench at the hill Patevní vrch near the Růžová village (northern Bohemia, Czech Republic) as fillings of cracks and vugs in Cainozoic altered analcinite. Chabazite-Ca forms rhombohedral crystals up to 4 mm in size. They are colorless, but often yellow, brown and up to red colored by Fe hydroxides on their surface. Its unit cell parameters refined from the powder X-ray data are:  $a$  13.819(7),  $c$  15.016(3) Å and  $V$  2483.5(9) Å<sup>3</sup>. Chemical analyses correspond to the empirical formula  $\text{Ca}_{1.49}\text{K}_{0.51}\text{Na}_{0.02}\text{Ba}_{0.01}\text{Sr}_{0.13}(\text{Al}_{3.58}\text{Si}_{8.37})\text{O}_{24} \cdot 12\text{H}_2\text{O}$ . Stilbite-Ca occurs in elongated crystals of rectangular sections, up to 3 mm in size, mostly of yellow color, rarely colorless. Its unit cell parameters refined from the powder X-ray data, are:  $a$  13.642(3),  $b$  18.238(1),  $c$  11.269(3) Å,  $\beta$  128.0(1)° and  $V$  2209.4(6) Å<sup>3</sup>. Chemical analyses of stilbite-Ca correspond to the empirical formula  $\text{Na}_{0.61}\text{K}_{0.45}\text{Ca}_{4.15}\text{Ba}_{0.01}(\text{Al}_{9.62}\text{Si}_{26.44})\text{O}_{72} \cdot 28\text{H}_2\text{O}$ .

**Key words:** stilbite-Ca, chabazite-Ca, powder X-ray diffraction data, unit-cell parameters, chemical composition, Patevní vrch near Růžová, Czech Republic

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