

## Fosfosiderit ze Zdechovic a Chvaletic u Přebouče v Železných horách (Česká republika)

### Phosphosiderite from Zdechovice and Chvaletice near Přebouč, Železné hory Mts. (Czech Republic)

PETR PAULIŠ<sup>1,2)\*</sup>, VIKTOR VENCLÍK<sup>3)</sup>, RADANA MALÍKOVÁ<sup>2)</sup>, ONDŘEJ POUR<sup>4)</sup> A JIŘÍ SEJKORA<sup>2)</sup>

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

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

<sup>3)</sup>Na drážce 1501, 530 03 Pardubice

<sup>4)</sup>Česká geologická služba, Geologická 6, 152 00 Praha 5

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#### Abstract

Phosphosiderite was found at mine dumps material of the abandoned Fe-Mn occurrence Zdechovice (19 km E from Kolín, Czech Republic). It forms there whitish, greyish white and mauve coatings and crusts with area more than 10 cm<sup>2</sup> on weathered slate rocks. Phosphosiderite is monoclinic, space group  $P2_1/n$ , the unit-cell parameters refined from X-ray powder diffraction data are:  $a$  5.330(3),  $b$  9.807(7),  $c$  8.706(4) Å,  $\beta$  90.60(5)° and  $V$  455.1(5) Å<sup>3</sup>; its chemical composition is close to ideal formula  $Fe^{3+}PO_4 \cdot 2H_2O$ . White crystals and aggregates of gypsum, yellow-brown nodules of destinezite (triclinic, space group  $P-1$ , unit-cell parameters:  $a$  9.562(8),  $b$  9.715(6),  $c$  7.319(5) Å,  $\alpha$  98.75(5),  $\beta$  107.91(5),  $\gamma$  63.87(5)° and  $V$  580.8(8) Å<sup>3</sup>) and white to greyish white aggregates of fluorapatite (hexagonal, space group  $P6_3/m$ , unit-cell parameters:  $a$  9.417(7),  $c$  6.8761(3) Å and  $V$  528.1(4) Å<sup>3</sup>) were observed in association. Similar occurrence of phosphosiderite (monoclinic, space group  $P2_1/n$ , the unit-cell parameters:  $a$  5.334(4),  $b$  9.817(6),  $c$  8.700(4) Å,  $\beta$  90.60(3)° and  $V$  455.7(5) Å<sup>3</sup>) was confirmed at historical sample from nearby Chvaletice deposit near Přebouč.

**Key words:** phosphosiderite, powder X-ray diffraction data, unit-cell parameters, chemical composition, Zdechovice, Chvaletice, Železné hory Mts., Czech Republic

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