PŮVODNÍ PRÁCE/ORIGINAL PAPER

Parasymplesit z haldy dolu Marie u Staré Vožice (Česká republika)

Parasymplesite from the Marie Mine dump near Stará Vožice (Czech Republic)

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Abstract

A parasymplesite, monoclinic $Fe^{2+}_3(AsO_4)_2 \cdot 8H_2O$ was found in dump material of the Maria mine, belonging to an abandoned Ag-Pb-Zn ore deposit Stará Vožice-Ratibořské Hory (southern Bohemia, Czech Republic). Parasymplesite forms bluish-grey to greenish-grey hemispherical aggregates up to 2 mm in size in association with arsenopyrite and pyrite. Parasymplesite is monoclinic, space group *C*2/m with *a* 10.321(9), *b* 13.522(9), *c* 4.773(7) Å, *β* 105.0(8)°, *V* 643.4(9) Å^3. Its chemical composition corresponds to empirical formula: $(Fe_{2.91}Mn_{0.03}Al_{0.02}K_{0.01})_{\Sigma 2.97}[(AsO_4)_{1.79}(PO_4)_{0.21}]_{\Sigma 2.00} \cdot 8H_2O$. Its origin is associated with weathering of arsenopyrite inside the mine dump material.

Key words: *parasymplesite, arsenopyrite, powder X-ray diffraction data, unit-cell parameters, chemical composition, Marie mine dump, Stará Vožice, South Bohemia, Czech Republic*

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