

Churchit-(Y) z uranového ložiska Zálesí v Rychlebských horách (Česká republika)

Churchite-(Y) from the uranium deposit Zálesí in the Rychlebské hory Mountains (Czech Republic)

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Abstract

Relatively rare yttrium phosphate, churchite-(Y), was found at mine dump in the abandoned uranium deposit Zálesí in the Rychlebské hory Mountains (Czech Republic). Churchite-(Y) forms light grey and white-grey globular aggregates up to 0.5 mm in size composed by tiny tabular crystals. Churchite-(Y) was identified by PXRD and its chemical composition corresponds to the empirical formula $(Y_{0.72}Ca_{0.16}Nd_{0.05}Sm_{0.03}Gd_{0.03}Dy_{0.03}La_{0.02}Er_{0.02})_{\Sigma 1.06}[(PO_4)_{0.97}(AsO_4)_{0.01}]_{\Sigma 0.98} \cdot 2 H_2O$ on the basis 2 *apfu*. The churchite-(Y) find at Zálesí represents sixth proved occurrence of this mineral phase in the Czech Republic.

Key words: churchite-(Y), chemical composition, uranium deposit, Zálesí, Czech Republic