Agardit-(Y) z ložiska Sn-W Cínovec v Krušných horách (Česká republika)

Agardite-(Y) from the Sn-W deposit Cínovec, Krušné hory Mountains (Czech Republic)

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Abstract

Rare Y-REE copper arsenate, mineral agardite-(Y), was found in the material from the abandoned Sn-W deposit, Krušné hory Mountains, northern Bohemia, Czech Republic. Agardite-(Y) forms very light green hemispherical to spherical aggregates up to 0.2 mm in association with green chrysocolla and yellow baryte in cavity of quartz gangue. Agardite-(Y) is hexagonal, space group $P6_3/m$, the unit-cell parameters refined from X-ray powder diffraction data are: a 13.5448(8), c 5.8804(6) Å and V 934.3(1) Å^3. Electron microprobe analyses correspond to empirical formula $(Y_{0.26}Dy_{0.14}Yb_{0.13}Nd_{0.08}Er_{0.08}Pb_{0.08}Gd_{0.07}Sm_{0.07}Ce_{0.01}La_{0.01}Ca_{0.01})_{\Sigma 0.94}\ Cu_{5.96}[(AsO_4)_{2.46}\ (SiO_4)_{0.53}(PO_4)_{0.01}]_{\Sigma 3.00}\ (OH)_{5.08}\ .\ 3H_2O$ on the basis (As+Si+P) = 3 *apfu*.

Key words: *agardite-(Y), X-ray powder diffraction, chemical composition, the Cínovec ore deposit, the Krušné hory Mts., Czech Republic*