

Crystal Data: Orthorhombic. *Point Group:* $mm2$. As acicular prismatic crystals, to 0.7 mm; elongated on [010] with wedge-shaped terminations, displaying {001}, {010}, {101}, {012}, {110}, {111}, {01 $\bar{2}$ }. *Twinning:* Contact twins on (101) common.

Physical Properties: *Cleavage:* None. *Fracture:* Conchoidal. *Tenacity:* n.d. Hardness = n.d. D(meas.) = n.d. D(calc.) = 1.864

Optical Properties: Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Biaxial (+). $\alpha = 1.490(2)$ $\beta = 1.493(2)$ $\gamma = \text{n.d.}$ $2V_Z = \text{large} (> 70^\circ)$. *Dispersion:* $r < v$, weak. *Orientation:* (OAP) $\perp$ [010]; β parallel a .

Cell Data: *Space Group:* $Pmn2_1$ (by analogy to struvite). $a = 6.903(3)$ $b = 6.174(2)$ $c = 11.146(3)$ $Z = 2$

X-ray Powder Pattern: Lengenbach, Binntal, Switzerland.
4.255 (100), 3.271 (90), 4.136 (80), 2.650 (70), 2.905 (70), 2.699 (50), 1.9541 (50)

Chemistry: Lengenbach, Binntal, Switzerland; Qualitative EDS analyses confirmed major K, Mg, P, and traces of Sb, Fe, and Cu. Structure refinement confirmed the pure K end-member.

Occurrence: Of either late hydrothermal or secondary origin (Switzerland); an alteration product of animal bones and circulating fluids (Austria).

Association: Rathite, dolomite (Switzerland); newberyite (Austria).

Distribution: Lengenbach, Binntal, Switzerland; Rossblei, Schladminger Tauern, Styria, Austria.

Name: As the potassium equivalent of struvite.

Type Material: Natural History Museum, Basel, Switzerland, S176.

References: (1) Graeser, S., W. Postl, H.-P. Bojar, P. Berlepsch, T. Armbruster, T. Raber, K. Ettinger, and F. Walter (2008) Struvite-(K), KMgPO₄·6H₂O, the potassium equivalent of struvite—a new mineral. *Eur. J. Mineral.*, 20, 629–633. (2) (2009) *Amer. Mineral.*, 94, 403–404 (abs. ref. 1).