Strontiohurlbutite SrBe<sub>2</sub>(PO<sub>4</sub>)<sub>2</sub>

**Crystal Data**: Monoclinic. *Point Group*: 2/m. As platy crystals, to 1.5 mm.

**Physical Properties**: Cleavage: None. Fracture: n.d. Tenacity: Brittle. Hardness = 6 D(meas.) = n.d. D(calc.) = 3.101

**Optical Properties**: Transparent to translucent. *Color*: Light blue, colorless in thin section. *Streak*: n.d. *Luster*: Vitreous.

Optical Class: Biaxial (-).  $\alpha = 1.563(3)$   $\beta = 1.569(2)$   $\gamma = 1.572(3)$   $2V(meas.) = 68.5(5)^{\circ}$   $2V(calc.) = 70^{\circ}$  Orientation: X = b,  $Y \approx c$ . Dispersion: Weak, r > v.

**Cell Data**: Space Group:  $P2_1/c$ . a = 7.997(3) b = 8.979(2) c = 8.420(7)  $\beta = 90.18(6)^{\circ}$  Z = 4

**X-ray Powder Pattern**: Nanping No. 31 pegmatite, Fujian province, southeastern China. 3.554 (100), 2.215 (87), 2.542 (67), 2.046 (54), 3.355 (51), 2.230 (42), 3.073 (38)

Chemistry:	(1)	(2)
SrO	29.30	35.06
$P_2O_5$	51.05	48.02
CaO	0.91	
BaO	0.64	
BeO	17.71	16.92
Total	99.61	100.00

(1) Nanping No. 31 pegmatite, Fujian province, southeastern China; average of 16 electron microprobe analyses supplemented by Raman spectrometry, BeO by SIMS; corresponds to  $(Sr_{0.81}Ca_{0.05}Ba_{0.01})_{\Sigma=0.87}Be_{2.02}P_{2.05}O_8$ . (2)  $SrBe_2(PO_4)_2$ .

**Occurrence**: In a highly-evolved zoned pegmatite, likely from reactions between late hydrothermal fluids and primary beryl.

**Association**: Quartz, muscovite, beryl, hurlbutite, hydroxylherderite, apatite-group minerals, phenakite.

**Distribution**: From the Nanping No. 31 pegmatite, 8 km west of Nanping, Fujian province, southeastern China.

Name: As a strontium-dominant analog of hurlbutite.

**Type Material**: Geological Museum of China, Beijing, China (M11803) and at the Laboratory of Mineralogy, University of Liège, Belgium (20387).

**References**: (1) Rao, C., R. Wang, F. Hatert, X. Gu, L. Ottolini, H. Hu, C. Dong, F.D. Bo, and M. Baijot (2014) Strontiohurlbutite, SrBe<sub>2</sub>(PO<sub>4</sub>)<sub>2</sub>, a new mineral from Nanping No. 31 pegmatite, Fujian Province, Southeastern China. Amer. Mineral., 99, 494-499.