Krauskopfite $BaSi_2O_4(OH)_2 \cdot 2H_2O$

Crystal Data: Monoclinic. *Point Group:* $2/m$. As equant to short prismatic grains, subhedral to anhedral, to 6 mm.

Physical Properties: *Cleavage:* Perfect on {010} and {001} intersecting at 90°, with a third poor cleavage at a high angle to the other two. Hardness = ∼4 D(meas.) = 3.14(2) for impure material. D(calc.) = 3.10

Optical Properties: Transparent to translucent. *Color:* White to colorless; colorless in thin section. *Streak:* White. *Luster:* Subvitreous, pearly on cleavages.
Optical Class: Biaxial (–). *Orientation:* $X = b$; $Y \wedge a = 6°$; $Z \wedge c = 10.5°$. *Dispersion:* $r > v$, distinct. $\alpha = 1.574(2)$ $\beta = 1.587(2)$ $\gamma = 1.599(2)$ 2V(meas.) = 88(5)° 2V(calc.) = 87°42′

Cell Data: *Space Group:* $P2_1/a$. $a = 8.460(5)$ $b = 10.622(6)$ $c = 7.837(4)$ $\beta = 94°32(8)'$ Z = 4

X-ray Powder Pattern: Rush Creek area, California, USA.
3.84 (100), 6.36 (45), 5.34 (45), 3.01 (40), 6.7 (30), 3.94 (30), 3.66 (30)

Chemistry:

	(1)
SiO_2	35.2
TiO_2	0.01
Al_2O_3	0.05
FeO	< 0.01
MnO	< 0.002
MgO	< 0.05
CaO	0.11
SrO	< 0.05
BaO	47.7
K_2O	< 0.1
LOI	16.7
Total	[100.0]

(1) Rush Creek area, California, USA; by D-C arc spectrography, loss on ignition taken as H_2O; stated to be recalculated to 100.0%; corresponds to $(Ba_{1.03}K_{0.01}Ca_{0.01})_{\Sigma=1.05}Si_{1.95}O_{3.95}(OH)_2 \cdot 2.08H_2O$.

Occurrence: In veins cutting sanbornite-quartz-bearing gneissic metamorphic rocks.

Association: Macdonaldite, "opal," witherite, sanbornite, quartz (Rush Creek area, California, USA).

Distribution: In the USA, in Calfornia, from the [Esquire No. 1 claim,] Rush Creek area, Fresno Co., in Chickencoop Canyon, Tulare Co., and on Trumbull Peak, near Incline, Mariposa Co.

Name: For Konrad Bates Krauskopf (1910–), Professor of Geochemistry, Stanford University, Palo Alto, California, USA.

Type Material: n.d.

References: (1) Alfors, J.T., M.C. Stinson, R.A. Matthews, and A. Pabst (1965) Seven new barium minerals from eastern Fresno County, California. Amer. Mineral., 50, 314–340. (2) Coda, A., A. Dal Negro, and G. Rossi (1967) The crystal structure of krauskopfite. Atti Rend. Accad. Lincei, 42(6), 859–873. (3) (1968) Chem. Abs., 69, 46894 (abs. ref. 2).