

Krauskopfite

BaSi₂O₄(OH)₂·2H₂O

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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 ∧ a = 6°; Z ∧ c = 10.5°. *Dispersion:* r > v, distinct. α = 1.574(2) β = 1.587(2) γ = 1.599(2) 2V(meas.) = 88(5)° 2V(calc.) = 87°42'

Cell Data: *Space Group:* P2₁/a. a = 8.460(5) b = 10.622(6) c = 7.837(4)
β = 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 ₂ O ₃	0.05
FeO	< 0.01
MnO	< 0.002
MgO	< 0.05
CaO	0.11
SrO	< 0.05
BaO	47.7
K ₂ O	< 0.1
LOI	16.7
Total	[100.0]

(1) Rush Creek area, California, USA; by D-C arc spectrography, loss on ignition taken as H₂O; stated to be recalculated to 100.0%; corresponds to (Ba_{1.03}K_{0.01}Ca_{0.01})_{Σ=1.05}Si_{1.95}O_{3.95}(OH)₂·2.08H₂O.

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 California, 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).

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