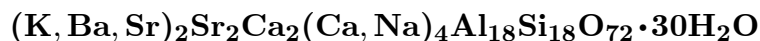


Bellbergite

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Crystal Data: Hexagonal. *Point Group:* $6/m\ 2/m\ 2/m, \bar{6}m2$, or $6mm$. Rarely as hexagonal dipyramidal crystals, consisting of $\{10\bar{1}2\}$, to 0.3 mm; commonly subparallel intergrowths elongated along $[0001]$.

Physical Properties: *Fracture:* Conchoidal. Hardness = ~ 5 D(meas.) = 2.20(2)
D(calc.) = 2.19

Optical Properties: Transparent. *Color:* Colorless to white; crystals zoned, with transparent ends and white sides. *Streak:* [White.] *Luster:* Vitreous.

Optical Class: Uniaxial (-). $\omega = 1.522(2)$ $\epsilon = 1.507(2)$

Cell Data: *Space Group:* $P6_3/mmc$, $P6_3mc$, or $P\bar{6}2c$. $a = 13.244(1)$ $c = 15.988(2)$
 $Z = 1$

X-ray Powder Pattern: Bellerberg volcano, Germany.

3.80 (100), 6.58 (80), 2.95 (70), 2.21 (70), 2.70 (50), 2.50 (50), 1.83 (50)

Chemistry:

	(1)
SiO ₂	34.41
Al ₂ O ₃	27.90
CaO	9.31
SrO	7.63
BaO	1.22
Na ₂ O	0.70
K ₂ O	1.95
H ₂ O	[16.88]
Total	[100.00]

(1) Bellerberg volcano, Germany; by electron microprobe, H₂O by difference; corresponds to $K_{1.33}Na_{0.72}Ca_{5.32}Sr_{2.36}Ba_{0.26}Al_{17.55}Si_{18.36}O_{72} \cdot 30H_2O$.

Mineral Group: Zeolite group.

Occurrence: In leucite tephrite lava at contacts between lava and calcium-rich xenoliths.

Association: Sanidine, clinopyroxene, pyrrhotite, thompsonite, ettringite, willhendersonite, gismondine, jasmundite, mayenite, srebrodolskite, calcic olivine, portlandite.

Distribution: From the Bellerberg volcano, two km north of Mayen, Eifel district, Germany.

Name: For its occurrence at the Bellerberg (also Bellberg) volcano, Germany.

Type Material: University of Vienna, Vienna, Austria.

References: (1) Rüdinger, B., E. Tillmanns, and G. Hentschel (1993) Bellbergite – a new mineral with the zeolite structure type EAB. *Mineral. Petrol.*, 48, 147–152.