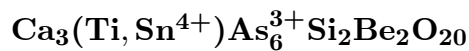


Asbecasite

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Crystal Data: Hexagonal. *Point Group:* $3m$. As rhombohedral crystals, up to 5 mm, flattened on {0001}, with {01 $\bar{1}$ 2}.

Physical Properties: *Cleavage:* Rhombohedral. Hardness = 6.5–7 D(meas.) = 3.70 D(calc.) = 3.71

Optical Properties: Transparent. *Color:* Lemon-yellow or citron-yellow. *Luster:* Vitreous. *Optical Class:* Uniaxial (–); anomalously biaxial. $\omega = 1.86$ $\epsilon = 1.83$ $2V(\text{meas.}) = 0^\circ\text{--}17^\circ$

Cell Data: *Space Group:* $P3c1$. $a = 8.36(2)$ $c = 15.30(3)$ $Z = 2$

X-ray Powder Pattern: Cherbadung, Switzerland.

3.231 (100), 2.404 (70), 1.929 (60), 1.571 (50), 1.154 (50), 1.746 (50), 4.030 (50)

Chemistry:

	(1)
SiO ₂	12.3
TiO ₂	6.3
SnO ₂	2.1
Al ₂ O ₃	1.2
As ₂ O ₃	58.7
Tl ₂ O ₃	1.0
BeO	2.3
CaO	15.4
Total	99.3

(1) Cherbadung, Switzerland; purity confirmed by electron microprobe; corresponds approximately to $\text{Ca}_{2.67}(\text{Ti}_{0.67}\text{Sn}_{0.13}\text{Tl}_{0.04})_{\Sigma=0.84}\text{As}_{6.67}^{3+}\text{Si}_{2.00}\text{Al}_{0.27}\text{Be}_{1.00}\text{O}_{20}$.

Occurrence: On cleft faces in orthogneiss (Cherbadung, Switzerland).

Association: Magnetite, hematite, titanite, apatite, anatase, malachite, azurite, tennantite, molybdenite (Cherbadung, Switzerland).

Distribution: On the east flank of Pizzo Cervandone, Alpe Devero, Val d'Aosta, Italy. On the west flank of Cherbadung [Pizzo Cervandone], Binntal, Valais, Switzerland.

Name: For elements in the composition, *As, Be, Ca, Si*.

Type Material: Natural History Museum, Basel, Switzerland, SG750; The Natural History Museum, London, England, 1966,222; National Museum of Natural History, Washington, D.C., USA, 143117.

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