

Crystal Data: Hexagonal. *Point Group:* 3m. As elongated platy crystals to 5 mm or as irregular grains to 3 mm.

Physical Properties: *Cleavage:* Good on {10 $\bar{1}$ 0}; poor parting on {0001}. *Tenacity:* Brittle.
Fracture: Conchoidal. Hardness = 4.5-5 VHN = 554-657 (100 g load).
 D(meas.) = 2.391(1) D(calc.) = 2.368

Optical Properties: Translucent. *Color:* Yellow, yellow-brown, orange-yellow, or orange.
Streak: Yellow. *Luster:* Vitreous.
Optical Class: Uniaxial (+). $\omega = 1.661(2)$ $\varepsilon = 1.584(2)$ *Pleochroism:* Strong, deep yellow or orange to pale yellow.

Cell Data: *Space Group:* P31c. $a = 12.9567(6)$ $c = 10.7711(5)$ $Z = 2$

X-ray Powder Pattern: Malaya Bystraya lazurite deposit, Eastern Siberian Region, Russia. 3.331 (100), 3.739 (94), 2.692 (56), 4.857 (48), 3.948 (38), 2.715 (32), 3.417 (25)

Chemistry:	(1)
SiO ₂	32.0
Al ₂ O ₃	27.2
CaO	4.9
Na ₂ O	14.3
K ₂ O	7.8
S	14.7
Cl	0.2
- O = S	1.82
- O = Cl	0.05
Total	99.28

(1) Malaya Bystraya lazurite deposit, Eastern Siberian Region, Russia; average of 16 electron microprobe analyses supplemented by FTIR spectroscopy; corresponds to Na_{5.17}K_{1.87}Ca_{0.99}[Al_{6.01}Si_{5.99}O₂₄](S₅)²⁻_{0.86}[(SH)⁻_{0.86}Cl⁻_{0.07}].

Mineral Group: Cancrinite group.

Occurrence: As metasomatic lenses in dolomitic marble replacing lazurite.

Association: Lazurite, diopside, calcite, phlogopite, pyrite.

Distribution: Found at the Malaya Bystraya lazurite deposit, ~6 km above the confluence of Malaya Bystraya river and Lazurnyi creek, ~25 km from Sludyanka, near Lake Baikal, Eastern Siberian Region, Russia.

Name: Reflects the chemical relationship with *bystrite* and by analogy to carbobystrite, a prefix *sulfhydryl*, for its distinctive chemical difference from other members of the group.

Type Material: Mineralogical Museum, Saint Petersburg State University, Saint Petersburg, Russia (1/19636).

References: (1) Sapozhnikov, A.N., E.V. Kaneva, L.F. Suvorova, V.I. Levitsky, and L.A. Ivanova (2017) Sulfhydrylbystrite, Na₅K₂Ca(Al₆Si₆O₂₄)(S₅)(SH), a new mineral with the LOS framework, and re-interpretation of bystrite: cancrinite-group minerals with novel extra-framework anions. *Mineral. Mag.*, 81(2), 383-402. (2) (2017) *Amer. Mineral.*, 102, 2345-2346 (abs. ref. 1).