

Crystal Data: Monoclinic. *Point Group:* 2/m. Flattened to acicular crystals, to 30 μm, occur in rounded aggregates to 2 mm.

Physical Properties: *Cleavage:* Perfect on {100}. *Fracture:* Uneven. *Tenacity:* Brittle. Hardness = 2.5 D(meas.) = 3.18(2) D(calc.) = 3.163

Optical Properties: Transparent. *Color:* Light violet, colorless in transmitted light. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Biaxial (+). $\alpha = 1.642(3)$ $\beta = 1.656(3)$ $\gamma = 1.722(6)$ $2V(\text{meas.}) = 55(5)^\circ$ $2V(\text{calc.}) = 51^\circ$

Cell Data: *Space Group:* P2₁/c. $a = 7.6502(9)$ $b = 6.7473(10)$ $c = 7.9358(13)$ $\beta = 108.542(12)^\circ$ $Z = 4$

X-ray Powder Pattern: Little Eva mine, Yellow Cat district, Grand County, Utah, USA. 7.277 (100), 3.163 (74), 2.9783 (74), 3.630 (58), 4.949 (37), 2.7231 (31), 3.767 (29)

| Chemistry: | (1) | (2) |
|------------------|--------|--------|
| CaO | 28.97 | 30.25 |
| SeO ₂ | 61.14 | 60.00 |
| H ₂ O | [9.75] | 9.75 |
| Total | 99.86 | 100.00 |

(1) Little Eva mine, Grand County, Utah, USA; average of 5 electron microprobe analyses, H₂O from stoichiometry and confirmed by Raman spectroscopy; corresponding to Ca_{0.96}Se_{1.02}O₃·H₂O. (2) CaSeO₃·H₂O.

Occurrence: A secondary mineral in the oxidized zone of a uranium deposit of the Colorado Plateau type.

Association: Cobaltomenite, gypsum, metarossite, orschallite, rossite.

Distribution: From the Little Eva mine, Yellow Cat district, Grand County, Utah, USA.

Name: Honors Fabrizio Nestola (b. 1972), Italian mineralogist and crystallographer, Department of Geosciences, University of Padua, Italy.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (4417/1).

References: (1) Kasatkin, A.V., J. Plášil, J. Marty, A.A. Agakhanov, D.I. Belakovskiy, and I.S. Lykova (2014) Nestolaite, CaSeO₃·H₂O, a new mineral from the Little Eva mine, Grand County, Utah, USA. *Mineral. Mag.*, 78(3), 497-505. (2) (2015) *Amer. Mineral.*, 100, 2356 (abs. ref. 1).