Zincaluminate  $\text{Zn}_6\text{Al}_6(\text{SO}_4)_2(\text{OH})_{26} \cdot 5\text{H}_2\text{O}$

Crystal Data: Hexagonal or orthorhombic (?).  Point Group: n.d.  Minute thin hexagonal crystals, in tufts and crusts.

Physical Properties:  Hardness = 2.5–3  $D(\text{meas.}) = 2.26$  $D(\text{calc.}) = \text{n.d.}$


Optical Class:  Uniaxial (−), may be biaxial.  $\omega = 1.534(3)$  $\epsilon = 1.514(3)$  $2V(\text{meas.}) = \text{Small}$.


X-ray Powder Pattern:  n.d.

Chemistry:

\[
\begin{array}{ccc}
\text{SO}_3 & 12.94 & 12.53 \\
\text{Al}_2\text{O}_3 & 25.48 & 23.92 \\
\text{CuO} & 1.85 & \\
\text{ZnO} & 34.69 & 38.19 \\
\text{H}_2\text{O} & 25.04 & 25.36 \\
\hline
\text{Total} & 100.00 & 100.00
\end{array}
\]

(1) Laurium, Greece; recalculated to 100% after deduction of minor gangue.
(2) $\text{Zn}_6\text{Al}_6(\text{SO}_4)_2(\text{OH})_{26} \cdot 5\text{H}_2\text{O}$.

Occurrence:  A rare secondary mineral in the oxidized zone of a Ag–Zn mine.

Association:  Smithsonite, aurichalcite, hydrozincite, serpierite, cyanotrichite, azurite, cuproadamite, agardite-(La), calcite, chrysocolla, gibbsite.

Distribution:  In Greece, from Laurium, at the Kamariza mine.

Name:  For zinc and aluminum in the composition, and its similarity to aluminite.

Type Material:  Natural History Museum, Paris, France, 96.1432.