Lewisite \[\text{(Ca, Fe}^{2+}, \text{Na)}_{2}(\text{Sb, Ti})_{2}\text{O}_{7}\]

Crystal Data: Cubic. Point Group: 4/m 3 2/m. As minute octahedra, to 1 mm, earthy masses. Twinning: On \{111\}, rare.

Physical Properties: Cleavage: \{111\}, nearly perfect. Hardness = 5.5  D(meas.) = 4.950  D(calc.) = 5.31


Cell Data: Space Group: \text{Fd}3\text{m (ICDD 7-66).} \quad a = 10.264–10.306 \quad Z = 8

X-ray Powder Pattern: Tripuhy, Brazil. (ICDD 7-66). 
2.94 (100), 1.813 (100), 1.548 (100), 1.179 (50), 1.150 (50), 1.050 (50), 0.989 (50)

Chemistry:

\[
\begin{array}{ll}
\text{Sb}_2\text{O}_5 & 67.52 \quad 65.52 \\
\text{TiO}_2 & 11.35 \quad 11.70 \\
\text{FeO} & 4.55 \quad 6.79 \\
\text{MnO} & 0.38 \\
\text{CaO} & 15.93 \quad 15.47 \\
\text{Na}_2\text{O} & 0.99 \quad 1.06 \\
\hline
\text{Total} & 100.72 \quad 100.54
\end{array}
\]

(1–2) Tripuhy, Brazil.

Mineral Group: Stibiconite group.

Occurrence: In eluvial sands (Tripuhy, Brazil); an alteration of large tetrahedrite crystals (Johnny Lyon Hills, Arizona, USA).

Association: Mica, cinnabar, tripulhyite (Tripuhy, Brazil); tetrahedrite (Johnny Lyon Hills, Arizona, USA).

Distribution: At the Tripuhy cinnabar mine, Ouro Prêto, Minas Gerais, Brazil. Abundant from Tres Alamos Wash, in the Johnny Lyon Hills, Cochise Co., Arizona, USA. In the Miniera del Tafone, Grosseto, Tuscany, Italy.

Name: For William James Lewis (1847–1926), Professor of Mineralogy, Cambridge University, Cambridge, England.
