Stetefeldtite 

\( \text{Ag}_2\text{Sb}_2(\text{O}, \text{OH})_7(?) \)

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**Crystal Data:** Cubic. *Point Group:* 4/m 3 2/m. Powdery, massive.

**Physical Properties:** Hardness = 3.5–4.5 D(meas.) = 4.6 D(calc.) = [4.58]

**Optical Properties:** Semitransparent. *Color:* Yellow, black to brown when admixed with impurities; pale yellow in transmitted light. *Streak:* Pale yellow, shining.

**Optical Class:** Isotropic. \( n = 1.95 \)

**Cell Data:** *Space Group:* Fd\(^{3m}\). \( a = 10.46 \quad Z = 8 \)

**X-ray Powder Pattern:** Belmont, Nevada, USA.
3.02 (100), 2.61 (70), 1.85 (70), 1.58 (70), 1.20 (50), 0.884 (50), 1.17 (40)

**Chemistry:**

\[
\begin{array}{ll}
\text{Sb}_2\text{O}_4 & 43.77 \\
\text{Ag} & 23.74 \\
\text{Cu} & 12.78 \\
\text{Fe} & 1.82 \\
\text{S} & 4.7 \\
\text{H}_2\text{O} & 7.9 \\
\hline
\text{Total} & 94.71 \\
\end{array}
\]

(1) Belmont, Nevada, USA; average of two analyses; assuming Cu, Fe, and S are contained in admixed chalcocite and pyrite, then corresponds to \( \text{Ag}_{1.1}\text{Sb}_{1.4}(\text{O}, \text{OH}, \text{H}_2\text{O})_{6.3} \).

**Mineral Group:** Stibiconite group.

**Occurrence:** Apparently an alteration product in the oxidized zone of some hydrothermal Ag–Sb-bearing mineral deposits, where it may constitute an ore of silver.

**Association:** Chalcocite, pyrite, quartz (Belmont, Nevada, USA).

**Distribution:** In the USA, in Nevada, in the Empire and Philadelphia districts, Belmont, 80 km northeast of Tonopah, Nye Co., and in the Black Warrior mine, near Silver Peak, Esmeralda Co.; in Arizona, at the Snyder Hill mine, Tucson Mountains, Pima Co., in the Johnny Lyon Hills, Cochise Co., and from the Red Cloud mine, Silver District, La Paz Co.

**Name:** To honor Carl August Stetefeldt (1838–1896), German-American mining engineer and metallurgist.

**Type Material:** Location of original type material is unknown; restudied on Harvard University, Cambridge, Massachusetts, 80285; National Museum of Natural History, Washington, D.C., USA, 104763.