Sterryite

\[ \text{Ag}_2\text{Pb}_{10}(\text{Sb, As})_{12}\text{S}_{29} \]

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**Crystal Data:** Orthorhombic. *Point Group:* \textit{mm}2 or \textit{2/m} 2/\textit{m} 2/m. Plumose and as bundles of fibers elongate \( || \) [001], to 1 mm, also as anhedral grains. *Twinning:* Very fine twin lamellae rarely seen in polished section.

**Physical Properties:** *Cleavage:* Perfect on \{hk0\}. *Hardness:* \( \sim 3.5 \) VHN = n.d. 
\( D(\text{meas.}) = \text{n.d.} \quad D(\text{calc.}) = 5.91 \)


\( R_1 - R_2: \ (470) \ 37.6-40.4, \ (546) \ 36.0-38.7, \ (589) \ 35.1-37.7, \ (650) \ 33.9-36.3 \)

**Cell Data:** *Space Group:* \textit{Pba2} or \textit{Pbam} (pseudocell). \( a = 28.4(5) \quad b = 42.6(6) \quad c = 8.20(5) \quad Z = 4 \)

**X-ray Powder Pattern:** Madoc, Canada.

3.26 (100), 3.68 (90), 2.836 (70), 3.54 (60), 2.965 (60), 4.14 (50), 3.94 (50)

**Chemistry:** 

\[ \begin{array}{c|c}
\text{Element} & \text{Content} \\
\hline
\text{Ag} & 3.39 \\
\text{Cu} & 0.86 \\
\text{Pb} & 45.43 \\
\text{Sb} & 22.63 \\
\text{As} & 6.18 \\
\text{S} & 20.76 \\
\hline
\text{Total} & 99.25 \\
\end{array} \]

(1) Madoc, Canada; by electron microprobe, average of 14 analyses; corresponding to \( (\text{Ag}_{1.41}\text{Cu}_{0.61})_{\Sigma=2.02}\text{Pb}_{9.82}(\text{Sb}_{8.33}\text{As}_{3.70})_{\Sigma=12.05}\text{S}_{29.00} \)

**Occurrence:** Of hydrothermal origin, in marble.

**Association:** Veenite, guettardite.

**Distribution:** From near Madoc, Ontario, Canada [TL].

**Name:** To honor Thomas Sterry Hunt (1826–1892), first mineralogist with the Geological Survey of Canada, Ottawa, Canada.

**Type Material:** Canadian Geological Survey, Ottawa, 12169; Royal Ontario Museum, Toronto, Canada; National Museum of Natural History, Washington, D.C., USA, 160258.