Sterryite $Ag_2Pb_{10}(Sb, As)_{12}S_{29}$

Crystal Data: Orthorhombic. *Point Group:* $mm2$ or $2/m\ 2/m\ 2/m$. 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 = ∼3.5 VHN = n.d. D(meas.) = n.d. D(calc.) = 5.91

Optical Properties: Opaque. *Color:* Black; in polished section, white. *Streak:* Black. *Luster:* Metallic. *Pleochroism:* Strong, from gray to white.

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:* *Pba*2 or *Pbam* (pseudocell). $a = 28.4(5)$ $b = 42.6(6)$ $c = 8.20(5)$ $Z = 4$

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:

	(1)
Ag	3.39
Cu	0.86
Pb	45.43
Sb	22.63
As	6.18
S	20.76
Total	99.25

(1) Madoc, Canada; by electron microprobe, average of 14 analyses; corresponding to $(Ag_{1.41}Cu_{0.61})_{\Sigma=2.02}Pb_{9.82}(Sb_{8.33}As_{3.70})_{\Sigma=12.03}S_{29.00}$.

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.

References: (1) Jambor, J.L. (1967) New lead sulfantimonides from Madoc, Ontario. Part 2 – mineral descriptions. Can. Mineral., 9, 191–213. (2) (1968) Amer. Mineral., 53, 1423 (abs. ref. 1). (3) Jambor, J.L., J.H.G. Laflamme, and D.A. Walker (1982) A re-examination of the Madoc sulfosalts. Mineral. Record, 13, 93–100.