

Henryite

$\text{Cu}_4\text{Ag}_3\text{Te}_4$

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Crystal Data: Cubic. *Point Group:* n.d. As anhedral grains, to 0.8 mm.

Physical Properties: Hardness = n.d. VHN = 109–115 (100 g load). D(meas.) = n.d.
D(calc.) = 7.86

Optical Properties: Opaque. *Color:* In reflected light, pale blue.

R: (400) 41.8, (420) 40.2, (440) 38.7, (460) 37.4, (480) 36.2, (500) 35.1, (520) 34.0, (540) 33.1,
(560) 32.3, (580) 31.4, (600) 30.4, (620) 29.4, (640) 28.4, (660) 27.4, (680) 26.5, (700) 25.7

Cell Data: *Space Group:* n.d. $a = 12.20(2)$ $Z = 8$

X-ray Powder Pattern: Bisbee, Arizona, USA.

2.157 (10), 3.050 (8), 7.04 (6), 2.348 (6), 4.31 (5), 3.522 (5), 2.728 (5)

Chemistry:

	(1)	(2)
Cu	22.3	23.36
Ag	30.2	29.74
Te	47.5	46.90
Total	100.0	100.00

(1) Bisbee, Arizona, USA; by electron microprobe, average of five analyses; corresponding to $\text{Cu}_{3.77}\text{Ag}_{3.01}\text{Te}_{4.00}$. (2) $\text{Cu}_4\text{Ag}_3\text{Te}_4$.

Occurrence: Of hydrothermal origin, with other Cu–Ag tellurides.

Association: Hessite, petzite, sylvanite, altaite, rickardite, pyrite.

Distribution: From the Campbell mine, Bisbee, Cochise Co., Arizona, USA [TL].

Name: In honor of Professor Norman Fordyce McKerron Henry (1909–1983), mineralogist and ore microscopist, University of Cambridge, Cambridge, England.

Type Material: The Natural History Museum, London, England, 1982,209; National Museum of Natural History, Washington, D.C., USA, 162714.

References: (1) Criddle, A.J., C.J. Stanley, J.E. Chisholm, and E.E. Fejer (1983) Henryite, a new copper–silver telluride from Bisbee, Arizona. *Bull. Minéral.*, 106, 511–517. (2) (1985) *Amer. Mineral.*, 70, 216 (abs. ref. 1).