

Crystal Data: Cubic. *Point Group:* $\bar{4}3m$. As microscopic angular inclusions.
Twining: Twin lamellae noted in polished section.

Physical Properties: Hardness = ~ 5 VHN = n.d. D(meas.) = 5.42 D(calc.) = 5.267

Optical Properties: Opaque to translucent. *Color:* Gray; in polished section, resembles tetrahedrite without the olive-brown or greenish blue hues.

Optical Class: Isotropic. $n = \sim 2.5$

R: n.d.

Cell Data: *Space Group:* $F\bar{4}3m$. $a = 5.667$ $Z = 4$

X-ray Powder Pattern: Synthetic.

3.273 (100), 2.003 (70), 1.707 (44), 1.1561 (15), 1.299 (13), 1.416 (9), 1.0901 (8)

Chemistry:	(1)	(2)
Zn	40.30	45.29
Hg	7.04	
Se	54.95	54.71
Total	102.29	100.00

(1) Santa Brigida mine, Argentina; by electron microprobe, corresponds to $(Zn_{0.92}Hg_{0.05})_{\Sigma=0.97}Se_{1.03}$. (2) ZnSe.

Mineral Group: Sphalerite group.

Occurrence: Included in linnaeite (Shinkolobwe, Congo); intermixed with other selenides (Santa Brigida mine, Argentina).

Association: Pyrite, linnaeite, clausthalite, selenian vaesite, molybdenite, dolomite (Shinkolobwe, Congo); tiemannite, clausthalite, eucairite, umangite, kloekmannite (Santa Brigida mine, Argentina).

Distribution: From Shinkolobwe, Katanga Province, Congo (Shaba Province, Zaire) [TL]. In the Santa Brigida mine, La Rioja Province, Argentina. From Tilkerode, Harz Mountains, Germany.

Name: Honors Hans Stille (1876–1966), German geologist.

Type Material: n.d.

References: (1) Ramdohr, P. (1956) Stilleit, ein neues Mineral, natürliches Zinkselenid, von Shinkolobwe. Geotektonisches Symposium zu Ehren von Hans Stille, 481–483 (in German). (2) (1957) Amer. Mineral., 42, 584 (abs. ref. 1). (3) DeMontreuil, L.A. (1974) Occurrence of mercurian stilleite. Bol. Soc. Geol. Peru, 44, 28–41 (in Spanish). (4) (1975) Chem. Abs., 82, 61925 (abs. ref. 4). (5) McIntyre, G.J., G. Moss, and Z. Barnea (1980) Anharmonic temperature factors of zinc selenide determined by X-ray diffraction from an extended-face crystal. Acta Cryst., A36, 482–490. (6) (1954) NBS Circ. 539, 3, 23.