

**Crystal Data:** Hexagonal. *Point Group:* n.d. Very rare microcrystals, hexagonal plates or prisms; typically as thin earthy films.

**Physical Properties:** Hardness = ~3 D(meas.) = 8.18 D(calc.) = 8.36

**Optical Properties:** Semitransparent. *Color:* Canary-yellow, greenish yellow, yellowish orange.

*Optical Class:* Uniaxial (-), moderate to high birefringence. *Pleochroism:* Slight; *O* = greenish yellow; *E* = yellow-orange.  $\omega = > 2.10$   $\epsilon = > 2.10$

**Cell Data:** *Space Group:* n.d.  $a = 7.07(1)$   $c = 10.05(1)$   $Z = 3$

**X-ray Powder Pattern:** Synthetic.

2.91 (100), 3.34 (70), 2.60 (55), 1.933 (25), 5.19 (20), 1.556 (18), 2.30 (16)

**Chemistry:**

	(1)	(2)
SO <sub>3</sub>	12.3	10.97
HgO	87.7	89.03
Total	[100.0]	100.00

(1) Oceanic mine, California, USA; recalculated to 100.0% after deduction of opal as SiO<sub>2</sub> 12.74%, other impurities 2.10%, and H<sub>2</sub>O 3.73% [by difference]; identification depends primarily on the correspondence of an X-ray powder pattern with synthetic material. (2) Hg<sub>3</sub>O<sub>2</sub>(SO<sub>4</sub>).

**Occurrence:** A recently formed secondary mineral in opalite [chalcedonic] mercury deposits, typically formed on cinnabar exposed to sunlight.

**Association:** Cinnabar.

**Distribution:** In the USA, in California, from a calcined dump at the Oceanic mine, San Luis Obispo Co., at the Mt. Diablo mine, Contra Costa Co., in the Sulphur Bank mine, Lake Co., and near the Clear Creek mercury mine, New Idria district, San Benito Co. In Nevada, from the B & B mine, east slope of the White Mountains, Fish Lake Valley district, Esmeralda Co., at the Silver Cloud mine, north of Battle Mountain, Ivanhoe district, Lander Co., from the Red Bird mercury mine, Antelope Springs district, and the Goldbanks mercury mine, Goldbanks district, Pershing Co.; at the Opalite mine, Malheur Co., Oregon.

**Name:** Honors Curt Nicolaus Schuette (1895–1975), American mining engineer and geologist, who studied many mercury deposits.

**Type Material:** National Museum of Natural History, Washington, D.C., USA, 117725.

**References:** (1) Bailey, E.H., F.A. Hildebrand, C.L. Christ, and J.J. Fahey (1959) Schuetteite, a new supergene mercury mineral. *Amer. Mineral.*, 44, 1026–1038.