

**Crystal Data:** Hexagonal. *Point Group:*  $\bar{6}m2$ . Rarely in crystals showing a trigonal outline; commonly as anhedral grains or aggregates, to 1 cm.

**Physical Properties:** Hardness =  $\sim 6$  D(meas.) = 4.03 D(calc.) = 4.07 Fluoresces bluish white under SW UV.

**Optical Properties:** Semitransparent. *Color:* Colorless to white with a pink tinge on a fresh surface; in thin section, shows anomalous interference colors in blue-violet or golden yellow.

*Luster:* Vitreous.

*Optical Class:* Uniaxial (-).  $\omega = 1.685(2)$   $\epsilon = 1.674(2)$

**Cell Data:** *Space Group:*  $P\bar{6}c2$ .  $a = 6.7037(7)$   $c = 9.824(1)$   $Z = 2$

**X-ray Powder Pattern:** Santa Cruz, California, USA.

3.762 (100), 2.775 (90), 5.829 (30), 3.363 (30), 1.987 (20), 2.912 (18), 1.807 (17)

<b>Chemistry:</b>	(1)
	SiO <sub>2</sub> 37.7
	TiO <sub>2</sub> 3.8
	SnO <sub>2</sub> 24.4
	<u>BaO 33.2</u>
	Total 99.1

(1) Santa Cruz, California, USA; by electron microprobe, corresponding to Ba<sub>1.03</sub>(Sn<sub>0.77</sub>Ti<sub>0.23</sub>)<sub>Σ=1.00</sub>Si<sub>2.99</sub>O<sub>9</sub>.

**Occurrence:** As fracture fillings and disseminated grains in recrystallized siliceous limestone which shows evidence of contact metamorphism.

**Association:** Calcite, quartz, tremolite, witherite, phlogopite, diopside, forsterite, taramellite.

**Distribution:** In the USA, in the Kalkar quarry, Santa Cruz, Santa Cruz Co., California.

**Name:** For Dr. Adolf Pabst (1899–1990), Professor of Mineralogy, University of California, Berkeley, California, USA.

**Type Material:** Harvard University, Cambridge, Massachusetts, 119605; National Museum of Natural History, Washington, D.C., USA, 145632.

**References:** (1) Gross, E.B., J.E.N. Wainwright, and B.W. Evans (1965) Pabstite, the tin analogue of benitoite. *Amer. Mineral.*, 50, 1164–1169. (2) Hawthorne, F.C. (1987) The crystal chemistry of the benitoite group minerals and structural relations in (Si<sub>3</sub>O<sub>9</sub>) ring structures. *Neues Jahrb. Mineral., Monatsh.*, 16–30.