Seeligerite  $Pb_3O(IO_3)Cl_3$ 

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**Crystal Data:** Orthorhombic, pseudotetragonal. *Point Group:* 222. Crystals are thin square platelets, to 1 mm.

Physical Properties: Cleavage: Good on  $\{001\}$ ,  $\{110\}$ ; poor on  $\{100\}$ ,  $\{010\}$ . Hardness = n.d. D(meas.) = 6.83 (synthetic). D(calc.) = 7.052

Optical Properties: Semitransparent. Color: Bright yellow. Optical Class: Biaxial (-). Dispersion: r>v.  $\alpha=2.12$   $\beta=\sim2.32$   $\gamma=\sim2.32$   $2V(\text{meas.})=4^{\circ}$ 

**Cell Data:** Space Group:  $C222_1$ . a = 7.964(3) b = 7.964(3) c = 27.288(7) Z = 8

**X-ray Powder Pattern:** Synthetic. 3.219 (10), 3.649 (9), 2.785 (8), 1.991 (8), 1.693 (8), 1.619 (8), 2.816 (7)

Chemistry: (1) Santa Ana mine, Chile; no analysis could be performed due to admixtures; identification depends on coincidence of the X-ray powder pattern with that of synthetic material.

**Occurrence:** A rare secondary mineral formed in the oxidized zone of hydrothermal polymetallic mineral deposits.

Association: Boleite, paralaurionite, schwartzembergite (Santa Ana mine, Chile).

**Distribution:** From the Santa Ana, Casucha, and San Francisco (Beatriz) mines, near Caracoles, Sierra Gorda district, Antofagasta, Chile.

Name: To honor Erich Seeliger, Professor of Mineralogy, Technical University, Berlin, Germany.

**Type Material:** Type material is missing from the Technical University, Berlin, Germany.

**References:** (1) Mücke, A. (1971) Seeligerit, ein natürliches Blei-Jodat. Neues Jahrb. Mineral., Monatsh., 210–217 (in German with English abs.). (2) (1972) Amer. Mineral., 57, 327–328 (abs. ref. 1).