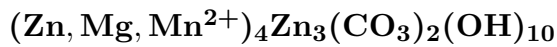


Sclearite



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Crystal Data: Monoclinic. *Point Group:* $2/m$. Crystals, to 0.2 mm, platy on {001}, elongated along [010], in roughly spherulitic aggregates.

Physical Properties: *Tenacity:* Moderately brittle. Hardness = 3–4 D(meas.) = 3.51(5) D(calc.) = 3.547

Optical Properties: Transparent to translucent. *Color:* Colorless to grayish white. *Streak:* White. *Luster:* Vitreous.

Optical Class: Biaxial (+). *Orientation:* $Y = b$; $X \wedge c = 49^\circ$. *Dispersion:* $r \gg v$, strong. $\alpha = 1.648(1)$ $\beta = 1.664(1)$ $\gamma = 1.702(2)$ $2V(\text{meas.}) = 63.4(6)^\circ$ $2V(\text{calc.}) = 67^\circ$

Cell Data: *Space Group:* $A2/a$. $a = 16.110(7)$ $b = 5.432(1)$ $c = 15.041(10)$
 $\beta = 95.490(4)^\circ$ $Z = 4$

X-ray Powder Pattern: Franklin, New Jersey, USA.
7.50 (10), 3.63 (5), 2.621 (5), 3.75 (4), 3.53 (4), 2.500 (4), 2.281 (3)

Chemistry:	(1)
	CO ₂ [12.67]
	FeO 0.1
	MnO 4.2
	ZnO 62.0
	MgO 6.7
	H ₂ O [12.97]
	<hr/> Total [98.64]

(1) Franklin, New Jersey, USA; by electron microprobe, total Mn as MnO, CO₂ and H₂O calculated from crystal-structure analysis; corresponds to $(\text{Zn}_{2.39}\text{Mg}_{1.18}\text{Mn}_{0.42})_{\Sigma=3.99}\text{Zn}_{3.00}(\text{CO}_3)_2(\text{OH})_{10}$.

Occurrence: Very rare on a museum specimen, in a veinlet possibly of hydrothermal origin, from a metamorphosed stratiform zinc orebody.

Association: Gageite, leucophoenicite, chlorophoenicite, rhodochrosite, willemite, zincite, franklinite.

Distribution: From Franklin, Sussex Co., New Jersey, USA.

Name: To honor Professor Charles Bertram Sclar (1925–2001), Geology Department, Lehigh University, Bethlehem, Pennsylvania, USA, who long studied the genesis of the Franklin deposit.

Type Material: Canadian Museum of Nature, Ottawa, Canada, 53777; National Museum of Natural History, Washington, D.C., USA, B13671.

References: (1) Grice, J.D. and P.J. Dunn (1989) Sclearite, a new mineral from Franklin, New Jersey, with essential octahedrally and tetrahedrally coordinated zinc: description and structure refinement. *Amer. Mineral.*, 74, 1355–1359.