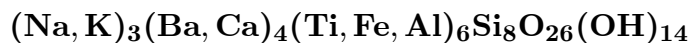


Delindeite



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Crystal Data: Monoclinic. *Point Group:* $2/m$. As lath-shaped crystals or flakes, forming compact spherulitic aggregates, to 1 mm. *Twinning:* Submicroscopic on {100}, common.

Physical Properties: *Cleavage:* {001}, good. *Fracture:* Irregular. *Tenacity:* Brittle. Hardness = n.d. $D(\text{meas.}) = 3.3(1)$ $D(\text{calc.}) = 3.70(1)$

Optical Properties: Translucent. *Color:* Pale pinkish gray. *Luster:* Resinous, pearly. *Optical Class:* Biaxial (+). $\alpha = 1.790(5)$ $\beta = 1.825(5)$ $\gamma = [1.982]$ $2V(\text{meas.}) = \text{Moderate}$. $2V(\text{calc.}) = 54^\circ$

Cell Data: *Space Group:* $C2/m$ or subgroup. $a = 21.617(13)$ $b = 6.816(5)$ $c = 5.383(3)$ $\beta = 94.03(5)^\circ$ $Z = 1$

X-ray Powder Pattern: Diamond Jo quarry, Arkansas, USA.
10.80 (100), 2.888 (31), 3.083 (28), 3.54 (24), 2.806 (20), 2.262 (18), 2.753 (16)

Chemistry:	(1)
SiO ₂	27.10
TiO ₂	23.02
Al ₂ O ₃	1.10
Fe ₂ O ₃	2.54
MgO	0.00
CaO	0.61
BaO	33.05
Na ₂ O	3.79
K ₂ O	1.47
H ₂ O	[7.32]
Total	[100.00]

(1) Diamond Jo quarry, Arkansas, USA; by electron microprobe, total Fe as Fe₂O₃, H₂O by difference; corresponds to $(\text{Na}_{2.16}\text{K}_{0.55})_{\Sigma=2.71}(\text{Ba}_{3.80}\text{Ca}_{0.19})_{\Sigma=3.99}(\text{Ti}_{5.08}\text{Fe}_{0.56}\text{Al}_{0.34})_{\Sigma=5.98}(\text{Si}_{7.96}\text{Al}_{0.04})_{\Sigma=8.00}[\text{O}_{32.83}(\text{H}_2\text{O})_{7.17}]_{\Sigma=40.00}$.

Occurrence: In vugs andmiarolitic cavities, as a weathering product of titaniferous nepheline syenite.

Association: Pectolite, barite, labuntsovite, lourenswalsite, pyroxene, titanite, sphalerite, potassic feldspar.

Distribution: Found in the Diamond Jo quarry, Magnet Cove, Hot Spring Co., Arkansas, USA.

Name: In honor of amateur mineralogist Henry deLinde of Mabelvale, Arkansas, USA, owner of the Diamond Jo quarry.

Type Material: n.d.

References: (1) Appleman, D.E., H.T. Evans, Jr., G.L. Nord, E.J. Dwornik, and C. Milton (1987) Delindeite and lourenswalsite, two new titanosilicates from the Magnet Cove region, Arkansas. *Mineral. Mag.*, 51, 417–425. (2) (1988) *Amer. Mineral.*, 73, 1493–1494 (abs. ref. 1).