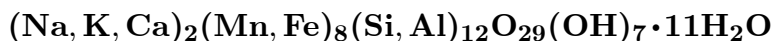


**Eggletonite**

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**Crystal Data:** Monoclinic. *Point Group:* 2/m or m. Crystals display a pseudo-hexagonal cross section, elongated along [100], with {011} and {001} common. As clusters of divergent sprays of radiating acicular prisms, to 2 cm. *Twinning:* On {001}.

**Physical Properties:** *Cleavage:* Perfect on {001}. *Tenacity:* Very brittle. *Hardness* = 3–4  
D(meas.) = 2.76 D(calc.) = 2.76

**Optical Properties:** Semitransparent. *Color:* Dark to golden brown, red-brown.  
*Streak:* Light brown. *Luster:* Vitreous.

*Optical Class:* Biaxial (-). *Pleochroism:* Very weak; X = pale brown to colorless; Y = Z = pale yellow-brown. *Orientation:* Z = b; X ≈ c'; Y ≈ a. *Dispersion:* r < v, weak.  
*Absorption:* Z ≈ Y > X. α = 1.566(2) β = 1.606(2) γ = 1.606(2) 2V(meas.) = 9(3)°

**Cell Data:** *Space Group:* I2/a or Ia. a = 5.554 b = 13.72 c = 25.00 β = 93.95°  
Z = 2

**X-ray Powder Pattern:** Big Rock quarry, Arkansas, USA.  
12.4 (100), 3.13 (30), 2.691 (25), 2.600 (20), 2.462 (20), 3.45 (15), 2.854 (15)

**Chemistry:**

	(1)
SiO <sub>2</sub>	41.5
Al <sub>2</sub> O <sub>3</sub>	7.6
FeO	3.0
MnO	31.4
ZnO	0.2
MgO	0.4
CaO	1.5
Na <sub>2</sub> O	1.7
K <sub>2</sub> O	1.3
H <sub>2</sub> O	[11.4]
Total	[100.0]

(1) Big Rock quarry, Arkansas, USA; by electron microprobe, H<sub>2</sub>O by difference; corresponds to (Na<sub>0.82</sub>K<sub>0.40</sub>Ca<sub>0.39</sub>)<sub>Σ=1.61</sub>(Mn<sub>6.61</sub>Fe<sub>0.61</sub>Al<sub>0.56</sub>Mg<sub>0.16</sub>Zn<sub>0.08</sub>)<sub>Σ=8.02</sub>(Si<sub>10.33</sub>Al<sub>1.67</sub>)<sub>Σ=12.00</sub>[O<sub>28.92</sub>(OH)<sub>3.08</sub>]<sub>Σ=32.00</sub>(OH)<sub>4.00</sub>•10.66H<sub>2</sub>O.

**Occurrence:** In miarolitic pockets in nepheline syenite pegmatite.

**Association:** Albite, natrolite, apophyllite pyrophanite, kupletskite.

**Distribution:** In the Big Rock quarry, Granite Mountain, near Little Rock, Pulaski Co., Arkansas, USA.

**Name:** To honor Dr. Richard A. Eggleton, Australian National University, Canberra, Australia.

**Type Material:** National Museum of Natural History, Washington, D.C., USA, 137143.

**References:** (1) Peacor, D.R., P.J. Dunn, and W.B. Simmons (1984) Eggletonite, the Na analogue of ganophyllite. *Mineral. Mag.*, 48, 93–96. (2) (1985) *Amer. Mineral.*, 70, 436 (abs. ref. 1).