

**Crystal Data:** Monoclinic. *Point Group:* 2/m. As acicular crystals to 0.4 mm in sprays to 0.8 mm.

**Physical Properties:** *Cleavage:* Perfect on {100} (by analogy to serpierite). *Tenacity:* Brittle.  
*Fracture:* Irregular. Hardness = ~3 D(meas.) = 3.25(3) D(calc.) = 3.33

**Optical Properties:** Transparent. *Color:* Pale blue. *Streak:* Pale blue. *Luster:* Vitreous.  
*Optical Class:* Biaxial (-).  $\alpha = 1.596(3)$   $\beta = 1.636(3)$   $\gamma = 1.643(3)$   $2V(\text{calc.}) = 44.5^\circ$   
*Orientation:* n.d. *Pleochroism:* Weak, X = pale yellowish blue, Y = pale blue, Z = pale greenish blue.

**Cell Data:** *Space Group:* C2/c.  $a = 22.049(2)$   $b = 6.212(2)$   $c = 21.839(2)$   $\beta = 113.19(3)^\circ$  Z = 8

**X-Ray Diffraction Pattern:** Block 14 open cut, Broken Hill, New South Wales, Australia.  
10.167 (100), 2.645 (60), 5.076 (55), 2.439 (50), 3.380 (35), 2.167 (35), 2.704 (30)

<b>Chemistry:</b>	(1)
CdO	9.25
CaO	4.95
PbO	0.04
CuO	40.49
ZnO	8.48
SO <sub>3</sub>	24.01
H <sub>2</sub> O	[16.59]
Total	103.83

(1) Block 14 open cut, Broken Hill, New South Wales, Australia; average electron microprobe analysis supplemented by IR spectroscopy, H<sub>2</sub>O calculated for charge balance; corresponds to (Cd<sub>0.62</sub>Ca<sub>0.39</sub>)<sub>Σ=1.01</sub>(Cu<sub>2.89</sub>Zn<sub>1.10</sub>)<sub>Σ=3.99</sub>(SO<sub>4</sub>)<sub>2</sub>(OH)<sub>6</sub>·3H<sub>2</sub>O.

**Occurrence:** Secondary mineral in the oxidation zone of a galena, Cd-bearing sphalerite, and chalcopyrite deposit.

**Association:** Neidermayrite, pyromorphite.

**Distribution:** From the Kintore and Block 14 open cuts, Broken Hill, New South Wales, Australia.

**Name:** Honors Edward William *Aldridge*, owner of the Duke of Cornwall Hotel, Broken Hill, Australia and collector of the first major Broken Hill mineral specimen collection (1888-1891).

**Type Material:** South Australian Museum, Adelaide, South Australia (G33030).

**References:** (1) Elliot, P. and A. Pring (2015) Aldridgeite, a new mineral from the Block 14 open cut, Broken Hill, New South Wales. *Australian J. Mineral.*, 17, 67-71.