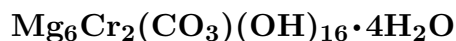


## Barbertonite



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**Crystal Data:** Hexagonal. *Point Group:* n.d. As plates, flattened on {0001}, in fibrous matted masses, and as cross-fiber veinlets.

**Physical Properties:** *Cleavage:* {0001}, perfect. *Tenacity:* Flexible but not elastic. Hardness = 1.5–2 D(meas.) = 2.10(5) D(calc.) = 2.11 Greasy feel.

**Optical Properties:** Transparent. *Color:* Intense violet to rose-pink; violet to pale rose-pink in transmitted light. *Streak:* Very pale violet to white. *Luster:* Waxy to pearly. *Optical Class:* Uniaxial (-); may be biaxial due to strain. *Pleochroism:* Weak; *O* = dark rose-pink to violet; *E* = pale rose-pink to violet.  $\omega = 1.557(3)$   $\epsilon = 1.529(3)$   $2V(\text{meas.}) = \text{Small}$ .

**Cell Data:** *Space Group:* n.d.  $a = 6.17$   $c = 15.52$   $Z = 1$

**X-ray Powder Pattern:** n.d.

**Chemistry:** Intimately intermixed with stichtite; analyses of pure material are therefore lacking. The species is supported by X-ray diffraction patterns showing group membership.

**Polymorphism & Series:** Dimorphous with stichtite.

**Mineral Group:** Manasseite group.

**Occurrence:** An alteration product of chromite in serpentinite.

**Association:** Stichtite, chromite, antigorite.

**Distribution:** From the Kaapsehoop asbestos mine, Kaapse Hoop, Barberton district, Transvaal, South Africa. In the Adelaide Ag–Pb mine, Dundas, Tasmania, Australia. At Hoo Field, Cunningsburgh, Shetland Islands, Scotland.

**Name:** For the Barberton district, South Africa, where it was first found.

**Type Material:** Harvard University, Cambridge, Massachusetts, USA, 92549.

**References:** (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 659. (2) Frondel, C. (1941) Constitution and polymorphism of the pyroaurite and sjögrenite groups. *Amer. Mineral.*, 26, 295–315. (3) Taylor, H.W.F. (1973) Crystal structures of some double hydroxide minerals. *Mineral. Mag.*, 39, 377–389.