Barbertonite $Mg_6Cr_2(CO_3)(OH)_{16}\cdot 4H_2O$

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(meas.) = 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.