A NEW ANALYSIS OF DUNDASITE FROM TASMANIA

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Dundasite was first described by W. F. Petterd in 1893, and an analysis of Tasmanian material was published in 1910. This analysis shows Fe_2O_3 as a large impurity, with high Al_2O_3 due to probable admixture of gibbsite which is an associated mineral at Dundas. Analyses of relatively uncontaminated material from elsewhere have been presented in the literature (Prior 1906, Palache *et al.* 1951, Beaumont *et* Guillemin 1960) with Beaumont and Guillemin deriving a formula for material from Sardinia of $Pb_2 Al_2 (CO_3)_4 (OH)_8 3H_2O$ rather than Pb Al $(CO_3)_2$ $(OH)_4$ $2H_2O$ as suggested by Prior. The analysis was performed by the Australian Mineral Development Laboratories on handpicked material taken from a specimen of dundasite (No. 14134) presented to the University of Tasmania with a collection of crocoite from Dundas.

It agrees well with the proposed formula.

	Dundasite	$Pb_2 Al_2 (CO_3)_4 (OH)_8 3H_2O$
PbO	46.60	46.87
Al_2O_3	21.50	21.41
Fe_2O_3	00.02	....
CO_2	18.10	18.48
H_2O+	13.90	13.24
H_2O-	00.08	....
	100.20	100.00

Analyst: C. R. Edmond.

The greatest differences occur between H_2O^+ and CO_2. As these are complementary it is probable that some $(OH)^-$ replaces $(CO_3)^{2-}$ in the structure.

REFERENCES.

BEAUMONT, C. et GUILLEMIN, C., 1960.—C. La Dundasite de Gonnesa (Sardaigne). (1960) *Bull. Soc. franc. Miner. Cris.* LXXXIII. 121-124.

PALACHE, BERMAN, FRONDEL (ed.), 1951.—*Dana's System of Mineralogy.* Vol. II 7th ed. (Wiley) p. 280.

PETTERD, W. F., (1893-1894).—A catalogue of the minerals known to occur in Tasmania. *Pap. Roy. Soc. Tasm.*, 26.

————————(1910).—Catalogue of the Minerals of Tasmania. *Pap. Roy. Soc. Tasm.*, 66.

PRIOR, G. T., (1906)—*Min. Mag.*, 14, 167.