

## REFERENCES FOR TECHNICAL INFORMATION ON NEW ZEALAND MINERALS

compiled by Simon Nathan, April 2006

Thirteen minerals have been first described from New Zealand and accepted as valid by the International Mineralogical Association. Most have been subsequently recognised overseas, but so far tuhualite is known only from the type area on Tuhua (Mayor) Island.

The following list, arranged in chronological order of discovery, gives the original paper where each mineral was described, as well as important later papers.

### **Taranakite** - $\text{KAl}_3(\text{PO}_4)_3(\text{OH}) \cdot 9\text{H}_2\text{O}$

Hector, J.; Skey, W. 1866: New Zealand Exhibition, 1865: Reports and Awards of the Jurors. Mills Dick, Dunedin, pp 371-452.

Bannister, F.A.; Hutchinson, G.E. 1947: The identity of Minervite and Palmerite with Taranakite. *Mineralogical Magazine* 28: 31-5.

### **Awaruite** - $\text{Ni}_2\text{Fe}$ to $\text{Ni}_3\text{Fe}$

Skey, W. 1886: On a new mineral (awaruite) from Barn Bay. *Transactions of the New Zealand Institute* 18: 401-2.

Rogers, K.A.; Hey, M.H. 1980: On the type locality and other occurrences of awaruite ( $\text{FeNi}_3$ ) in Westland, New Zealand. *Mineralogical Magazine* 41: 389-90

### **Tuhualite** - $(\text{Na},\text{K})\text{Fe}_2\text{Si}_6\text{O}_{15}$

Marshall, P. 1932: Notes on some volcanic rocks of the North Island of New Zealand. *New Zealand Journal of Science & Technology* 13: 201-202. [Original description]

Marshall, P 1936: The mineral tuhualite. *Transactions of the Royal Society of New Zealand* 66: 330-36.

Hutton, C.O. 1956: Re-examination of the mineral tuhualite. *Mineralogical Magazine* 31: 96-106.

Nicholls, J.; Carmichael, I.S.E. 1969: Peralkaline acid liquids: a petrological study. *Contributions to Mineralogy & Petrology* 20: 268-94.

**Hydrogrossular** -  $\text{Ca}_3\text{Al}_2(\text{SiO}_4)_{3-x}(\text{OH})_{4x}$

Hutton, C.O. 1943: Hydrogrossular, a new mineral of the garnet-hydrogarnet series. *Transactions of the Royal Society of New Zealand* 73: 174-80.

**Huttonite** -  $\text{ThSiO}_4$

Pabst, A. 1950: Monoclinic thorium silicate. *Nature* 166: 157.

Pabst, A.; Hutton, C.O. 1951: Huttonite, a new monoclinic thorium silicate. *American Mineralogist* 36: 60-69.

**Wairakite** -  $\text{CaAl}_2\text{Si}_4\text{O}_{12}\cdot 2\text{H}_2\text{O}$

Steiner, A 1955: Wairakite, the calcium analogue of analcime, a new zeolite mineral. *Mineralogical Magazine* 30: 691-98.

Coombs, D.S. 1955: X-ray observations on wairakite and non-cubic analcime. *Mineralogical Magazine* 30: 699-708.

**Wairauite** -  $\text{CoFe}$

Challis, G.A.; Long, J.V.P. 1964: Wairauite – a new cobalt-iron mineral. *Mineralogical Magazine* 33: 942-48.

**Akatoreite** -  $\text{Mn}_9(\text{Si,Al})_{10}\text{O}_{23}(\text{OH})_9$

Read, P.B.; Reay, A. 1971: Akatoreite, a new manganese silicate from eastern Otago, New Zealand. *American Mineralogist* 56: 416-26.

**Motukoreaite** -  $\text{Na}_{22}\text{Mg}_{38}\text{Al}_{24}(\text{CO}_3)_{13}(\text{SO}_4)_8(\text{OH})_{10}\cdot 56\text{H}_2\text{O}$

Rogers, K.A.; Chisholm, J.E.; David, R.J.; Nelson, C.S. 1977: Motukoreaite, a new hydrated, carbonate, sulphate and hydroxide of Mg and Al from Auckland, New Zealand. *Mineralogical Magazine* 41: 389-90.

**Feruvite** -  $\text{CaFe}_3(\text{Al,Mg})_6(\text{BO}_3)_3\text{Si}_6\text{O}_{18}(\text{OH})_4$

Black, P. 1971: Tourmaline of Cuvier Island, New Zealand. *Mineralogical Magazine* 38: 374-76.

Grice, J.D.; Robinson, G.W. 1989: Feruvite, a new member of the tourmaline group, and its crystal structure. *Canadian Mineralogist* 27: 199-200.

**Coombsite** -  $K(\text{Mn,Fe,Mg})_{13}(\text{Si,Al})_{18}\text{O}_{42}(\text{OH})_{14}$

Sameshima, T.; Kawachi, Y. 1991: Coombsite, Mn analogue of zussmanite, and associated Mn silicates, parsettensite and caryopilite, from southeastern Otago, New Zealand. *New Zealand Journal of Geology & Geophysics* 34: 329-50.

**Ferroceladonite** -  $\text{K}_2\text{Fe}_4\text{Si}_8\text{O}_{20}(\text{OH})_4$

**Ferroaluminoceladonite** -  $\text{K}_2\text{Fe}_2\text{Al}_2\text{Si}_8\text{O}_{20}(\text{OH})_4$

Li, G.; Peacor, D.R.; Coombs, D.S.; Kawachi, Y. 1997: Solid solution in the celadonite family: the new minerals ferroceladonite,  $\text{K}_2\text{Fe}_2\text{Si}_8\text{O}_{20}(\text{OH})_4$ , and ferroaluminoceladonite,  $\text{K}_2\text{Fe}_2\text{Al}_2\text{Si}_8\text{O}_{20}(\text{OH})_4$ . *American Mineralogist* 82: 503-11