

	Atomic.	Quantivalent.
Si	610 × 4 = 2440	} 2492 2492
Ti	13 × 4 = 52	
Al	192 × 3 = 576	} 1176
Fe ^{III}	200 × 3 = 600	
Fe ^{II}	53 × 2 = 106	
Mn	18 × 2 = 36	} 2466
Ca	523 × 2 = 1046	
Mg	35 × 2 = 70	} 1290
H	32	

The ratio for RO : R₂O₃ : (SiTi)C₂ is 629 : 196 : 623, or, calculating the titanium as Ti₂O₃, 629 : 203 : 610 = 3 : 1 : 3. The analysis therefore accords well with the ordinary garnet formula 3RO, R₂O₃, 3SiO₂ or R₂^{II}R₂^{III}Si₃O₁₂, and the mineral may be regarded as a titaniferous andradite, with a considerable proportion of the ferric oxide replaced by alumina. In composition it resembles somewhat the brown garnet from the Island of Stokö, analyzed by Lindström.*

By way of comparison the analysis of the Stokö garnet and also one of a garnet from the nepheline-syenite of the Island of Alnö† are included in the following table.

Stokö.		Molec. R.		Alnö.		Molec. R.		Dungannon.		Molec. R.	
SiO ₂	26.63	610	610	31.15	519	} 603	36.604	610	} 623		
TiO ₂	---	---	---	6.73	84		1.078	13			
Al ₂ O ₃	9.97	98	} 182	3.14	31	} 180	9.771	96	} 196		
Fe ₂ O ₃	13.45	84		23.83	180		15.996	100			
FeO	2.28	32	} 698	---	---	} 616	3.852	53	} 645		
MnO .....	.63	9		.58	8		1.301	18		
CaO	35.90	641	} 698	33.44	597	} 616	29.306	523	} 645		
MgO .....	.28	7		---	---		1.384	35		
Na ₂ O	---	---	} 9	.68	11	} 616	---	---	} 645		
Ign. ....	.16	9		---	---		.285	16		
99.30				99.55				99.577			

* Zeitschr. für Kryst. u. Min., xvi, 160, 1890.

† Sahlbom, in the paper by Högbom already cited.