Magnesio-axinite, $Ca_4Mg_2Al_4[B_2Si_8O_{30}](OH)_2$

Magnesio-axinite
Andreozzi G B, Lucchesi S, Graziani G
European Journal of Mineralogy 12 (2000) 1185-1194
Structural study of magnesioaxinite and its crystal-chemical relations with axinite-group minerals
7.1381 9.1626 8.9421 91.903 98.105 77.468 P-1

atom	x	y	z	Wyckoff
Si1	0.21090	0.44980	0.23102	2i
Si2	0.21846	0.27405	0.52188	2i
Si3	0.69967	0.25808	0.01122	2i
Si4	0.64224	0.01769	0.23078	2i
B	0.4627	0.6347	0.2859	2i
Al1	0.05319	0.79946	0.25516	2i
Al2	0.35128	0.93645	0.42062	2i
Mg	0.76596	0.59547	0.11837	2i
Ca1	0.74552	0.34737	0.39304	2i
Ca2	0.18237	0.10280	0.08373	2i
O1	0.0508	0.6024	0.1924	2i
O2	0.2342	0.3428	0.0893	2i
O3	0.4190	0.4867	0.3115	2i
O4	0.1387	0.3674	0.3655	2i
O5	0.0207	0.2418	0.5618	2i
O6	0.3229	0.3802	0.6462	2i
O7	0.3817	0.1268	0.4968	2i
O8	0.5333	0.3422	0.8767	2i
O9	0.8773	0.1563	0.9328	2i
O10	0.7686	0.3727	0.1355	2i
O11	0.6091	0.1340	0.0888	2i
O12	0.4347	0.9825	0.2430	2i
O13	0.7220	0.0986	0.3847	2i
O14	0.7929	0.8695	0.1787	2i
O15	0.3255	0.7458	0.3550	2i
O16	0.0958	0.9955	0.3217	2i
H	0.989	0.961	0.619	2i

$(27 \times 18c)$

Raman Active Modes

WP	A_g	A_u
2i	3	·

Total number of modes:
$81A_g = 81$