

Electron Microprobe Data

Ruff ID: **R050628**

Mineral: **Dumortierite**

Locality: Minas Gerais, Brazil

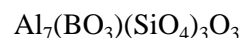
Weight Percents

Analysis	#21	#22	#23	#25	#26	#27	#29	#30	#32	#33	#34	#35	#36	#37	#38	#39	#40	Average	StDev
Al ₂ O ₃	63.68	63.65	63.69	63.47	63.68	63.57	63.56	63.50	63.49	63.47	64.11	63.71	63.54	62.94	63.13	63.42	63.48	63.53	0.24
SiO ₂	30.81	30.96	30.96	30.81	30.86	30.80	31.05	30.98	30.98	31.05	31.13	31.08	30.97	30.90	30.87	30.89	30.83	30.94	0.10
TiO ₂	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.10	0.07	0.11	0.08	0.07	0.10	0.08	0.10	0.08	0.08	0.09	0.01
FeO	0.08	0.07	0.00	0.07	0.07	0.08	0.00	0.09	0.08	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.11	0.04	0.04
B ₂ O ₃	5.25	5.21	5.18	5.42	5.22	5.43	5.11	5.29	5.34	5.22	4.59	5.02	5.22	5.89	5.80	5.53	5.46	5.30	0.28
Totals	99.91	99.97	99.93	99.87	99.92	99.96	99.81	99.96	99.96	99.85	99.91	99.87	99.83	99.92	99.89	99.92	99.96	99.91	0.05

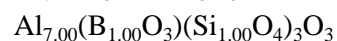
Cation numbers normalized to 18 Oxygens

																		ACN	StDev	NCN	CNISF*
Al	7.19	7.18	7.18	7.17	7.18	7.16	7.18	7.16	7.16	7.16	7.25	7.19	7.17	7.09	7.11	7.14	7.15	7.17	0.03	7.17	7.00
Si	2.95	2.96	2.96	2.95	2.95	2.95	2.98	2.96	2.96	2.97	2.99	2.98	2.97	2.95	2.95	2.95	2.95	2.96	0.01	2.96	1.00
B	0.87	0.86	0.86	0.90	0.86	0.90	0.85	0.87	0.88	0.86	0.76	0.83	0.86	0.97	0.96	0.91	0.90	0.88	0.05	0.88	1.00
Totals	11.01	11.00	11.00	11.02	11.00	11.00	11.01	11.00	11.00	10.99	11.00	10.99	11.00	11.01	11.01	11.00	11.00	11.00	0.01	11.00	

Ideal Chemistry:



Calculated Chemistry:



Trace amounts of Fe and Ti

Instrument: Cameca SX50

Sample Voltage: 15 kV

Acceleration Current: 20 nA

Beam Size: Spot

Date of Analysis: 03/11/06

ACN: Average Number of Cations

NCN: Normalized Cation Numbers = ACN*11/11.01

StDev: Standard Deviation

CNISF*: Cation Numbers In Structural Formulae, normalized for each structural site and charge balanced

Xtal	El	Line	Pk(s)	Bkg(s)	Bkg(+)	Bkg(-)	Standards
TAP	Na	Ka	20	10	600	-600	albite-Cr
TAP	F	Ka	20	10	800	-800	MgF2
TAP	Al	Ka	20	10	600	-600	kyanite
TAP	Si	Ka	20	10	600	-600	albite-Cr
TAP	Mg	Ka	20	10	500	-500	diopside
PET	K	Ka	20	10	500	-500	kspar-OR1
PET	Ti	Ka	20	10	600	-600	rutile1
PET	Ca	Ka	20	10	600	-600	diopside
LIF	Mn	Ka	20	10	500	-500	rhod-791
LIF	Fe	Ka	20	10	500	-250	fayalite