Chemical analyses of amphibole (values in wt%). N.d. = Not detected

Sample	*MC81*	*MC77*	*MC77*	*MC77*	*MC77*	*MC70*	*MC70*	*MC70*	*MC81*	*MC70*	*MC40*
N.	215	59	67	88	95	120	125	130	218	131	03
Analysis Occurences	**br Am* after Cpx**	**br Am* after Cpx**	**br Am* after Cpx**	**gr Am***	**gr Am***	**br Am***	**br Am* after Cpx**	**bl/gr Am***	**Bl Am***	**bl/gr Am***	**gr Am***
Oxides (wt%)											
SiO_2	42.12	43.47	42.40	43.71	45.64	43.25	41.96	44.52	55.94	44.44	50.42
TiO_2	3.64	3.08	3.50	0.75	0.07	3.32	3.64	0.15	0.02	0.14	0.35
Al_2O_3	11.57	10.22	10.71	11.70	11.06	10.37	12.31	12.27	4.64	12.20	6.64
Cr_2O_3	n.d.	n.d.	n.d.	n.d.	n.d.	0.01	n.d.	0.02	0.01	0.03	0.01
FeO	14.46	17.62	19.28	17.34	13.36	15.90	14.66	17.83	21.06	17.96	10.23
MnO	0.26	0.32	0.31	0.28	0.27	0.30	0.29	0.46	0.06	0.50	0.28
MgO	11.86	10.64	9.75	11.68	14.49	11.74	11.96	10.02	8.19	9.89	17.55
CaO	10.87	10.54	10.52	10.67	10.73	10.44	11.16	11.54	1.17	11.37	10.97
Na_2O	3.42	2.94	3.18	2.94	2.83	3.96	3.46	2.39	6.85	2.49	1.78
K_2O	0.37	0.41	0.43	0.25	0.22	0.09	0.07	0.13	0.03	0.15	0.25
Total	**98.58**	**99.25**	**100.09**	**99.33**	**98.68**	**99.38**	**99.64**	**99.37**	**98.05**	**99.26**	**98.54**
Group	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl
Subgroup of (OH,F,Cl)	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Na	Ca	Ca
Species	**Ti-Fe-sadanagaite**	**Ti-Fe-sadanagaite**	**Ti-Fe-sadanagaite**	**Fe-tschermakite**	**Fe-tschermakite**	**Ti-Fe-sadanagaite**	**Ti-Fe-sadanagaite**	**Fe-tschermakite**	**Mg-riebeckite**	**Fe-tschermakite**	**Mg-Fe-hornblende**
Si	6.101	6.245	6.091	6.182	6.402	6.207	6.014	6.278	7.925	6.279	6.991
$Al^{(iv)}$	1.899	1.730	1.813	1.818	1.598	1.754	1.982	1.720	0.071	1.720	1.009
T subtotal	**8.000**	**8.000**	**8.000**	**8.000**	8.000	8.000	**8.001**	**8.000**	**7.999**	**8.001**	**8.000**
$Al^{(vi)}$	0.077	0.000	0.000	0.132	0.230	0.000	0.099	0.319	0.704	0.312	0.076
Ti	0.397	0.308	0.282	0.080	0.007	0.319	0.393	0.016	0.002	0.015	0.037
Cr	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.001	0.003	0.001
Fe^{3+}	1.752	2.117	2.316	2.051	1.567	1.908	1.758	2.030	1.242	2.059	1.186
Fe^{2+}	0.000	0.000	0.000	2.463	0.000	0.000	0.000	0.074	1.254	0.063	0.000
Mg	2.561	2.279	2.088	2.463	3.030	2.512	2.557	2.107	1.730	2.083	3.628
C subtotal	**5.000**	**4.743**	**4.724**	**4.760**	**4.866**	**4.776**	**4.842**	**4.603**	**4.940**	**4.596**	**4.967**

Mn^{2+}	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Fe^{2+}	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ca	1.687	1.622	1.619	1.617	1.613	1.605	1.715	1.744	0.178	1.721	1.630
Na	0.313	0.308	0.381	0.383	0.387	0.395	0.285	0.256	1.822	0.279	0.370
B subtotal	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**
Na	0.648	0.441	0.505	0.423	0.382	0.707	0.677	0.397	0.060	0.403	0.108
K	0.068	0.075	0.079	0.045	0.039	0.016	0.013	0.023	0.005	0.027	0.044
A subtotal	**0.716**	**0.516**	**0.584**	**0.468**	**0.421**	**0.723**	0.690	0.420	0.065	0.430	0.152
Sum T,C,B,A	**15.535**	**15.259**	**15.308**	**15.228**	**15.287**	**15.499**	**15.533**	**15.023**	**15.004**	**15.027**	**15.119**

Chemical analyses of amphibole continued……..

Sample	*MC81*	*MC77*	*MC77*	*MC77*	*MC77*	*MC70*	*MC70*	*MC70*	*MC81*	*MC70*	*MC70*
N. Analysis	207	68	71	89	72	143	155	126	208	156	162
Occurences	**bl Am***	**br Am* after Cpx**	**br Am* after Cpx**	**gr Am***	**br Am* after Cpx**	**br Am***	**gr Am***	**gr Am***	**bl Am***	**gr Am***	**br Am**
Oxides (wt%)											
SiO_2	55.83	43.08	45.77	43.67	46.21	39.84	53.14	45.97	56.41	52.49	42.37
TiO_2	0.03	3.82	3.17	0.60	3.13	0.04	0.08	0.10	0.03	0.08	2.94
Al_2O_3	6.20	10.26	8.59	11.76	8.42	14.59	2.52	10.30	6.07	3.03	12.03
Cr_2O_3	0.01	0.00	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.01
FeO	19.21	16.74	15.03	16.67	13.88	29.33	18.96	17.92	19.50	18.92	15.66
MnO	0.07	0.29	0.27	0.20	0.26	0.66	0.59	0.57	0.07	0.67	0.21
MgO	8.51	11.12	12.88	11.57	13.52	3.93	12.13	10.87	8.36	11.68	11.78
CaO	2.54	10.51	10.29	11.06	10.53	8.80	11.77	11.55	2.20	11.89	10.98
Na_2O	6.36	3.15	2.79	2.94	2.63	3.35	0.39	2.18	6.49	0.48	3.73
K_2O	0.10	0.43	0.48	0.34	0.45	0.13	0.04	0.11	0.07	0.04	0.07
Total	**98.87**	**99.40**	**99.29**	**98.83**	**99.09**	**100.77**	**99.69**	**99.64**	**99.28**	**99.33**	**99.81**
Group	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl	OH,F,Cl
Subgroup of (OH,F,Cl)	Na	Ca	Ca	Ca	Ca	Na-Ca	Ca	Ca	Na	Ca	Ca
Species	**Mg-riebeckite**	**Ti-Fe-sadanagaite**	**Ti-Fe-tschermakite**	**Fe-sadanagaite**	**Ti-Fe-tschermakite**	**Fe-barroisite**	**actinolite**	**Fe-tschermakite**	**Mg-riebeckite**	**Mg-Fe-hornblende**	**Ti-Fe-sadanagaite**
Si	7.824	6.204	6.516	6.203	6.574	5.746	7.666	6.474	7.878	7.599	6.048
$Al^{(iv)}$	0.176	1.741	1.441	1.797	1.412	2.254	0.334	1.526	0.122	0.401	1.952
T subtotal	**8.000**	**7.999**	**8.000**	**8.000**	**8.001**	**8.000**	**8.000**	**8.000**	**8.000**	**8.000**	**8.000**
$Al^{(vi)}$	0.848	0.000	0.000	0.172	0.000	0.226	0.094	0.184	0.877	0.116	0.072
Ti	0.003	0.360	0.297	0.064	0.320	0.004	0.009	0.011	0.003	0.009	0.316
Cr	0.001	0.000	0.001	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.001
Fe^{3+}	1.037	2.016	1.790	1.980	1.651	2.937	0.342	1.917	0.990	0.413	1.869
Fe^{2+}	1.215	0.000	0.000	0.000	0.000	0.600	1.946	0.193	1.288	1.878	0.000
Mg	1.778	2.387	2.734	2.450	2.867	0.845	2.609	2.282	1.741	2.521	2.507

C subtotal	**4.890**	**4.798**	**4.855**	**4.690**	**4.870**	**4.704**	**5.001**	**4.661**	**4.914**	**5.000**	**4.790**
Mn^{2+}	0.000	0.000	0.000	0.000	0.000	0.000	0.071	0.000	0.000	0.021	0.000
Fe^{2+}	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ca	0.381	1.622	1.570	1.683	1.605	1.360	1.819	1.743	0.329	1.844	1.679
Na	1.619	0.378	0.430	0.317	0.395	0.640	0.109	0.257	1.671	0.135	0.321
B subtotal	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**	**2.000**	**1.999**	**2.000**	**2.000**	**2.000**	**2.000**
Na	0.110	0.501	0.340	0.493	0.330	0.297	0.000	0.338	0.087	0.000	0.712
K	0.018	0.079	0.087	0.062	0.082	0.024	0.007	0.020	0.012	0.007	0.013
A subtotal	**0.128**	**0.580**	**0.427**	**0.555**	**0.412**	**0.321**	**0.007**	**0.358**	**0.099**	**0.007**	**0.725**
Sum T,C,B,A	**15.018**	**15.377**	**15.282**	**15.245**	**15.283**	**15.025**	**15.007**	**15.019**	**15.013**	**15.007**	**15.515**