

Table T4. Microprobe analyses of clinopyroxene in Leg 176 gabbros. (Continued on next five pages.)

Sample:*	MS1-1	MS3-2	MS6-3	MS9-4	MS11-5	MS12-6	MS14-7	MS18-8	MS19-9	MS20-10	MS22-11	MS23-12	MS24-13	MS25-14	MS26-15	MS27-16	MS28-17	MS41-18
N:	8	15	10	8	14	12	9	17	17	11	5	9	3	6	8	7	14	14
Major element oxides (wt%):																		
SiO ₂	52.40	52.16	51.42	50.31	52.64	52.99	52.96	52.29	51.89	52.02	51.93	52.47	51.00	50.19	50.24	51.10	51.70	51.90
TiO ₂	0.58	0.49	0.68	0.43	0.65	0.59	0.68	0.85	0.78	0.80	0.68	0.79	0.88	0.70	0.78	0.75	0.81	0.60
Al ₂ O ₃	4.03	3.32	3.37	3.98	2.94	2.40	3.23	2.66	3.21	2.99	2.46	2.71	2.42	2.16	2.65	2.85	2.61	2.36
FeOt	4.66	5.25	4.60	4.40	7.01	7.98	6.20	8.39	8.61	8.01	9.41	7.58	9.77	11.43	8.66	6.97	9.14	12.13
MnO	0.13	0.15	0.13	0.12	0.19	0.23	0.18	0.25	0.23	0.22	0.30	0.22	0.28	0.35	0.22	0.19	0.25	0.34
MgO	17.60	17.66	16.73	16.95	16.07	16.60	16.34	15.18	15.44	15.80	14.57	15.34	14.09	13.70	17.20	16.72	15.46	14.02
CaO	19.26	20.28	21.91	21.81	20.54	19.44	20.90	20.31	19.38	19.90	19.60	21.14	21.42	20.64	18.78	20.14	19.66	17.73
Na ₂ O	0.52	0.32	0.37	0.48	0.52	0.35	0.51	0.51	0.72	0.51	0.57	0.43	0.52	0.52	0.39	0.39	0.43	0.58
K ₂ O	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.03	0.00	0.00	0.01	0.06
P ₂ O ₅	0.02	0.02	0.01	0.00	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.01
NiO	0.03	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.02	0.03	0.03	0.02	0.01	0.01	0.01
Cr ₂ O ₃	0.99	0.63	0.49	1.07	0.03	0.03	0.07	0.02	0.03	0.03	0.01	0.06	0.00	0.02	0.03	0.09	0.02	0.00
Total:	100.22	100.32	99.75	99.57	100.65	100.66	101.13	100.50	100.33	100.32	99.57	100.78	100.42	99.78	98.97	99.23	100.09	99.74
Calculated cation proportions:																		
Si	1.9019	1.9021	1.8913	1.8587	1.9264	1.9398	1.9223	1.9287	1.9157	1.9174	1.9399	1.9265	1.9076	1.9041	1.8851	1.9007	1.9198	1.9491
Ti	0.0158	0.0136	0.0188	0.0118	0.0179	0.0163	0.0186	0.0235	0.0216	0.0222	0.0192	0.0219	0.0246	0.0200	0.0219	0.0210	0.0225	0.0169
Al	0.1722	0.1428	0.1464	0.1730	0.1267	0.1037	0.1384	0.1157	0.1398	0.1300	0.1086	0.1174	0.1068	0.0966	0.1171	0.1247	0.1141	0.1044
Cr	0.0284	0.0181	0.0142	0.0314	0.0008	0.0009	0.0021	0.0006	0.0009	0.0008	0.0002	0.0018	0.0001	0.0005	0.0010	0.0027	0.0005	0.0001
Fe	0.1414	0.1600	0.1412	0.1357	0.2141	0.2438	0.1879	0.2582	0.2656	0.2466	0.2937	0.2323	0.3049	0.3619	0.2713	0.2170	0.2833	0.3801
Mn	0.0040	0.0047	0.0041	0.0037	0.0060	0.0072	0.0056	0.0077	0.0072	0.0069	0.0096	0.0068	0.0088	0.0111	0.0071	0.0059	0.0078	0.0109
Mg	0.9513	0.9592	0.9166	0.9322	0.8755	0.9052	0.8834	0.8342	0.8493	0.8673	0.8107	0.8387	0.7848	0.7745	0.9608	0.9262	0.8551	0.7842
Ca	0.7487	0.7920	0.8636	0.8638	0.8059	0.7621	0.8122	0.8026	0.7662	0.7854	0.7838	0.8312	0.8578	0.8386	0.7553	0.8022	0.7820	0.7137
Na	0.0363	0.0223	0.0266	0.0341	0.0369	0.0248	0.0361	0.0367	0.0514	0.0366	0.0413	0.0306	0.0373	0.0381	0.0284	0.0282	0.0306	0.0421
K	0.0002	0.0003	0.0002	0.0001	0.0006	0.0003	0.0003	0.0003	0.0007	0.0001	0.0005	0.0001	0.0003	0.0013	0.0000	0.0002	0.0003	0.0029
Total:	4.0002	4.0152	4.0230	4.0444	4.0107	4.0041	4.0070	4.0082	4.0184	4.0133	4.0075	4.0073	4.0331	4.0470	4.0482	4.0288	4.0158	4.0043
Mg#	87.2	88.1	90.7	95.4	82.0	79.5	83.6	77.6	78.8	79.9	74.5	79.4	76.7	74.4	85.0	85.5	77.3	67.9
1 σ	2.0	1.3	4.5	3.8	2.6	3.5	1.7	1.5	1.7	2.8	1.9	1.9	3.2	4.6	4.8	3.9	2.4	2.5
Wo	34.1	36.3	39.5	36.0	39.0	37.1	39.3	39.6	38.0	38.1	38.8	40.8	40.8	38.0	32.2	37.1	38.5	35.1
En	57.4	56.1	54.9	61.1	50.0	49.9	50.7	46.8	48.8	49.4	45.5	47.0	45.5	46.1	57.4	53.7	47.6	43.9
Fs	8.5	7.6	5.6	3.0	11.0	13.0	10.0	13.6	13.2	12.5	15.7	12.2	13.8	15.9	10.3	9.2	14.0	21.0

Notes: * = ODP designations for sample IDs are found in Table T1, p. 29. N = averages of a number of point analyses on more than one crystal in a thin section are reported. The analyses were done on a JXA-8800L Superprobe at The university of Queensland. See text for analytical details. F (fine) and C (coarse) in GS samples refer to fine-grained microgabbro "bands" or "veins" entrained or enclosed within coarse-grained gabbro host. Note that nonsystematic compositional differences exist between averaged F and C portions of the same samples, but these differences are within the expected within sample variations. Wo = wollastonite, En = enstatite, Fs = ferrosilite.

Table T4 (continued).

Sample:* N:	MS60-19 5	MS70-20 6	MS71-21 6	MS72-22 5	MS74-23 9	MS76-24 5	MS78-25 9	MS79-26 6	MS82-27 9	MS84-28 6	MS89-29 3	MS90-30 6	MS91-31 6	MS92-32 6	MS93-33 8	MS95-34 3	MS97-35 3	MS98-36 9
Major element oxides (wt%):																		
SiO ₂	52.76	53.33	52.61	52.73	52.61	52.84	50.66	51.43	51.54	51.82	50.90	49.99	51.89	51.91	51.82	52.13	52.35	51.81
TiO ₂	0.58	0.59	0.84	0.72	0.75	0.74	0.68	0.58	0.75	0.61	0.82	0.99	0.56	0.68	0.77	0.53	0.64	0.76
Al ₂ O ₃	2.37	1.99	2.75	2.38	3.13	2.94	2.75	3.00	3.04	2.75	2.64	2.84	2.84	2.75	2.61	2.91	2.75	2.56
FeOt	9.36	8.55	6.98	7.28	6.75	6.39	7.79	6.27	7.14	7.20	7.36	8.59	6.94	6.01	7.51	6.82	7.03	7.46
MnO	0.24	0.27	0.20	0.21	0.19	0.18	0.21	0.16	0.19	0.20	0.20	0.24	0.19	0.17	0.22	0.18	0.20	0.23
MgO	18.78	15.25	15.39	15.97	16.31	15.80	15.24	16.47	17.01	16.86	16.45	16.21	16.65	15.82	16.29	17.27	16.58	16.01
CaO	15.43	20.02	21.51	20.73	20.44	21.45	21.43	21.25	19.72	19.24	19.78	20.23	19.59	21.74	19.56	19.22	19.70	20.04
Na ₂ O	0.31	0.42	0.45	0.37	0.47	0.45	0.58	0.45	0.40	0.36	0.38	0.50	0.38	0.42	0.37	0.36	0.36	0.38
K ₂ O	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00
P ₂ O ₅	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.00	0.01
NiO	0.02	0.01	0.02	0.02	0.01	0.02	0.03	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.02
Cr ₂ O ₃	0.02	0.02	0.06	0.06	0.07	0.06	0.07	0.09	0.06	0.07	0.03	0.04	0.10	0.05	0.05	0.08	0.07	0.05
Total:	99.88	100.47	100.83	100.49	100.74	100.87	99.46	99.72	99.87	99.14	98.59	99.66	99.18	99.58	99.23	99.53	99.72	99.33
Calculated cation proportions:																		
Si	1.9369	1.9626	1.9270	1.9362	1.9201	1.9276	1.8975	1.9018	1.9013	1.9221	1.9074	1.8724	1.9233	1.9203	1.9255	1.9213	1.9294	1.9254
Ti	0.0161	0.0165	0.0230	0.0197	0.0205	0.0203	0.0191	0.0161	0.0209	0.0171	0.0231	0.0279	0.0155	0.0190	0.0215	0.0146	0.0178	0.0212
Al	0.1026	0.0864	0.1186	0.1029	0.1347	0.1263	0.1216	0.1308	0.1321	0.1200	0.1167	0.1252	0.1240	0.1198	0.1141	0.1264	0.1196	0.1120
Cr	0.0007	0.0006	0.0018	0.0018	0.0019	0.0017	0.0019	0.0027	0.0018	0.0021	0.0007	0.0011	0.0031	0.0016	0.0014	0.0024	0.0021	0.0015
Fe	0.2866	0.2628	0.2135	0.2232	0.2055	0.1947	0.2438	0.1936	0.2199	0.2231	0.2304	0.2686	0.2148	0.1858	0.2329	0.2097	0.2162	0.2314
Mn	0.0073	0.0085	0.0063	0.0064	0.0060	0.0054	0.0068	0.0049	0.0058	0.0062	0.0062	0.0076	0.0061	0.0053	0.0069	0.0057	0.0062	0.0071
Mg	1.0268	0.8356	0.8397	0.8731	0.8861	0.8584	0.8502	0.9073	0.9347	0.9313	0.9187	0.9045	0.9190	0.8720	0.9013	0.9473	0.9099	0.8863
Ca	0.6073	0.7893	0.8439	0.8152	0.7996	0.8380	0.8595	0.8420	0.7800	0.7648	0.7934	0.8110	0.7779	0.8613	0.7783	0.7593	0.7778	0.7977
Na	0.0218	0.0297	0.0318	0.0262	0.0333	0.0315	0.0421	0.0321	0.0283	0.0259	0.0277	0.0361	0.0276	0.0298	0.0265	0.0260	0.0261	0.0276
K	0.0003	0.0006	0.0001	0.0002	0.0002	0.0002	0.0003	0.0000	0.0000	0.0004	0.0004	0.0002	0.0001	0.0000	0.0003	0.0004	0.0002	0.0002
Total:	4.0063	3.9926	4.0057	4.0050	4.0079	4.0039	4.0428	4.0314	4.0249	4.0129	4.0248	4.0547	4.0115	4.0149	4.0087	4.0130	4.0052	4.0106
Mg#	79.1	75.1	80.6	80.4	82.4	82.1	84.4	87.6	84.7	82.5	83.5	85.2	82.8	84.9	80.9	84.0	81.5	80.9
1 σ	2.2	2.5	0.78	1.3	1.9	1.2	5.7	4.9	4.9	1.4	3.5	2.7	3.2	2.6	2.3	2.4	0.56	2.5
Wo	29.3	37.9	41.4	40.0	38.8	40.7	39.4	37.7	35.6	36.9	37.0	35.1	36.9	42.2	38.0	36.6	37.6	39.0
En	55.8	46.6	47.2	48.2	50.4	48.7	51.2	54.6	54.7	52.0	52.7	55.2	52.2	49.1	50.0	53.1	50.8	49.3
Fs	14.9	15.5	11.4	11.8	10.8	10.6	9.3	7.7	9.7	11.0	10.3	9.7	10.9	8.8	12.0	10.3	11.5	11.7

Table T4 (continued).

Sample* N:	MS99-37 10	MS101-38 15	GS30-1 5 F	GS30-1 5 C	GS31-2 3 F	GS31-2 6 C	GS32-3 6 C	GS32-3 3 F	GS33-4 3 F	GS33-4 3 C	GS34-5 3 C	GS34-5 3 F	GS40-6 6 C	GS40-6 3 F	GS38-7 6 C	GS38-7 5 F	GS44-8 3 F	GS44-8 3 C
Major element oxides (wt%):																		
SiO ₂	51.96	52.05	52.26	51.94	51.81	52.35	51.26	51.81	52.41	52.63	51.58	52.81	52.27	52.35	50.93	51.49	50.75	51.69
TiO ₂	0.61	0.59	0.67	0.72	0.72	0.63	0.92	0.66	0.68	0.65	1.04	0.65	0.82	0.81	0.83	0.76	0.70	0.61
Al ₂ O ₃	2.75	2.50	2.44	2.51	2.72	2.62	2.98	3.12	2.66	2.50	2.86	2.71	2.61	2.80	2.67	2.48	2.59	2.73
FeOt	5.97	6.88	7.40	8.24	7.34	7.33	7.92	8.39	7.60	7.50	7.82	6.41	8.14	7.41	8.64	8.78	7.17	8.84
MnO	0.19	0.19	0.21	0.22	0.21	0.21	0.23	0.23	0.22	0.22	0.22	0.17	0.24	0.20	0.25	0.24	0.22	0.23
MgO	16.03	16.46	15.52	15.59	16.22	16.09	14.59	15.24	15.90	15.61	14.17	16.01	14.53	14.83	15.51	15.48	15.29	15.75
CaO	21.02	19.86	20.72	20.02	20.14	19.95	20.55	19.03	19.78	20.28	21.17	20.57	20.99	21.11	19.65	19.97	21.31	18.74
Na ₂ O	0.41	0.37	0.41	0.36	0.37	0.37	0.45	0.42	0.39	0.35	0.48	0.40	0.44	0.43	0.46	0.38	0.39	0.40
K ₂ O	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
P ₂ O ₅	0.01	0.01	0.03	0.02	0.02	0.01	0.03	0.03	0.02	0.00	0.02	0.00	0.02	0.01	0.01	0.01	0.01	0.02
NiO	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.03	0.03	0.02	0.01	0.01	0.01	0.03	0.02	0.02	0.01	0.02
Cr ₂ O ₃	0.06	0.05	0.10	0.05	0.08	0.12	0.03	0.31	0.06	0.05	0.03	0.04	0.04	0.25	0.02	0.02	0.05	0.05
Total:	99.05	98.97	99.77	99.70	99.64	99.68	98.99	99.29	99.75	99.82	99.41	99.78	100.10	100.25	98.98	99.63	98.51	99.09
Calculated cation proportions:																		
Si	1.9278	1.9337	1.9353	1.9292	1.9188	1.9342	1.9198	1.9284	1.9364	1.9436	1.9248	1.9414	1.9361	1.9312	1.9113	1.9201	1.9108	1.9296
Ti	0.0171	0.0164	0.0187	0.0202	0.0201	0.0175	0.0261	0.0186	0.0189	0.0180	0.0292	0.0181	0.0228	0.0225	0.0236	0.0214	0.0199	0.0172
Al	0.1203	0.1092	0.1066	0.1098	0.1187	0.1139	0.1315	0.1371	0.1160	0.1090	0.1258	0.1175	0.1140	0.1217	0.1179	0.1092	0.1149	0.1203
Cr	0.0019	0.0014	0.0028	0.0015	0.0024	0.0036	0.0010	0.0091	0.0017	0.0013	0.0010	0.0013	0.0012	0.0072	0.0007	0.0005	0.0016	0.0016
Fe	0.1848	0.2135	0.2288	0.2556	0.2268	0.2261	0.2477	0.2607	0.2343	0.2313	0.2436	0.1967	0.2517	0.2282	0.2709	0.2735	0.2254	0.2756
Mn	0.0059	0.0061	0.0064	0.0069	0.0064	0.0064	0.0073	0.0074	0.0068	0.0069	0.0068	0.0053	0.0076	0.0063	0.0080	0.0076	0.0070	0.0074
Mg	0.8861	0.9108	0.8561	0.8626	0.8950	0.8848	0.8135	0.8448	0.8750	0.8584	0.7877	0.8766	0.8015	0.8151	0.8668	0.8600	0.8578	0.8761
Ca	0.8353	0.7901	0.8218	0.7962	0.7990	0.7897	0.8247	0.7586	0.7827	0.8021	0.8462	0.8099	0.8328	0.8342	0.7897	0.7976	0.8592	0.7500
Na	0.0297	0.0267	0.0291	0.0258	0.0265	0.0263	0.0328	0.0305	0.0280	0.0253	0.0350	0.0285	0.0314	0.0306	0.0336	0.0275	0.0284	0.0286
K	0.0000	0.0001	0.0003	0.0001	0.0000	0.0003	0.0000	0.0003	0.0002	0.0002	0.0001	0.0000	0.0001	0.0002	0.0001	0.0000	0.0003	0.0002
Total:	4.0089	4.0080	4.0059	4.0079	4.0138	4.0028	4.0043	3.9954	4.0000	3.9960	4.0003	3.9954	3.9992	3.9972	4.0226	4.0174	4.0254	4.0066
Mg#	84.2	82.2	79.8	78.3	81.8	80.0	77.3	75.8	78.9	78.2	76.4	81.0	76.0	77.7	79.4	78.1	83.1	77.1
1 σ	1.5	2.5	0.90	1.9	0.46	1.4	1.7	0.53	0.27	0.39	0.22	0.79	0.52	1.3	1.5	2.3	2.7	4.7
Wo	40.6	38.4	40.3	39.1	39.1	38.2	40.3	35.7	37.8	38.7	41.5	38.9	40.6	40.2	38.4	37.3	40.7	34.6
En	50.0	50.6	47.6	47.7	49.8	49.4	46.2	48.7	49.0	48.0	44.7	49.5	45.1	46.4	48.9	49.1	49.3	50.4
Fs	9.4	11.0	12.1	13.3	11.1	12.3	13.6	15.6	13.1	13.4	13.8	11.6	14.3	13.3	12.7	13.6	10.0	15.0

Table T4 (continued).

Sample:*	GS59-9	GS59-9	GS64-10	GS64-10	GS77-11	GS83-12	GS83-12	GS86-13	GS86-13	GS87-14	GS87-14	GS88-15	GS88-15	GS96-16	GS100-17	GS100-17	GS51-18	GS51-18
N:	6	3	5	10	5	5	5	3	5	3	6	5	3	3	4	3	4	6
	C	F	F	C	C	F	C	F	C	F	C	C	F	C	F	C	C	F
Major element oxides (wt%):																		
SiO ₂	52.42	51.25	52.60	52.94	52.29	53.09	52.84	52.60	52.37	52.74	52.57	52.44	52.48	52.88	52.67	52.93	51.38	51.02
TiO ₂	0.85	0.86	0.83	0.71	0.93	0.62	0.66	0.76	0.93	0.66	0.91	0.63	0.74	0.56	0.67	0.61	0.70	0.68
Al ₂ O ₃	2.33	2.54	2.45	2.64	2.64	2.33	2.32	2.38	2.71	2.57	2.68	2.73	2.60	2.89	2.61	2.77	2.25	2.22
FeOt	9.83	9.07	9.42	7.80	7.73	6.59	6.90	7.98	9.02	7.12	7.75	7.66	7.41	6.39	6.71	6.82	9.50	10.36
MnO	0.29	0.26	0.28	0.22	0.22	0.19	0.20	0.23	0.26	0.21	0.21	0.19	0.19	0.15	0.19	0.19	0.30	0.32
MgO	15.09	14.38	15.33	15.49	15.31	16.01	15.80	14.72	14.25	15.96	16.22	15.65	15.94	16.59	15.82	16.35	14.74	14.75
CaO	19.02	20.33	18.76	19.86	20.22	20.84	20.54	21.22	20.30	20.05	19.06	20.00	19.82	19.97	20.90	20.00	19.98	18.74
Na ₂ O	0.46	0.48	0.44	0.44	0.44	0.38	0.39	0.42	0.47	0.39	0.39	0.41	0.43	0.39	0.39	0.37	0.48	0.47
K ₂ O	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.00
P ₂ O ₅	0.01	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.03	0.02	0.02	0.01	0.01	0.02	0.00	0.02	0.02	0.01
NiO	0.01	0.03	0.01	0.01	0.03	0.01	0.03	0.02	0.04	0.01	0.02	0.00	0.02	0.00	0.02	0.03	0.01	0.01
Cr ₂ O ₃	0.01	0.01	0.02	0.04	0.31	0.08	0.06	0.06	0.07	0.17	0.10	0.07	0.19	0.10	0.10	0.05	0.05	0.06
Total:	100.33	99.23	100.15	100.19	100.11	100.16	99.76	100.40	100.46	99.90	99.93	99.81	99.83	99.95	100.09	100.13	99.40	98.66
Calculated cation proportions:																		
Si	1.9414	1.9247	1.9452	1.9469	1.9304	1.9478	1.9486	1.9418	1.9372	1.9417	1.9354	1.9370	1.9362	1.9373	1.9366	1.9400	1.9287	1.9316
Ti	0.0236	0.0244	0.0230	0.0198	0.0257	0.0172	0.0183	0.0211	0.0258	0.0183	0.0252	0.0174	0.0205	0.0155	0.0185	0.0167	0.0197	0.0195
Al	0.1017	0.1122	0.1067	0.1141	0.1147	0.1009	0.1007	0.1033	0.1183	0.1115	0.1162	0.1188	0.1130	0.1247	0.1133	0.1195	0.0997	0.0989
Cr	0.0003	0.0003	0.0007	0.0012	0.0089	0.0022	0.0019	0.0018	0.0021	0.0049	0.0029	0.0021	0.0054	0.0029	0.0030	0.0015	0.0015	0.0017
Fe	0.3039	0.2843	0.2907	0.2395	0.2382	0.2019	0.2125	0.2459	0.2785	0.2188	0.2381	0.2363	0.2283	0.1955	0.2061	0.2087	0.2977	0.3274
Mn	0.0092	0.0084	0.0087	0.0070	0.0068	0.0059	0.0063	0.0072	0.0081	0.0066	0.0067	0.0061	0.0061	0.0048	0.0060	0.0059	0.0094	0.0103
Mg	0.8321	0.8048	0.8443	0.8480	0.8417	0.8752	0.8682	0.8094	0.7854	0.8755	0.8897	0.8613	0.8759	0.9053	0.8664	0.8926	0.8236	0.8320
Ca	0.7549	0.8179	0.7432	0.7833	0.7997	0.8189	0.8112	0.8390	0.8042	0.7905	0.7516	0.7914	0.7834	0.7836	0.8230	0.7849	0.8032	0.7598
Na	0.0333	0.0352	0.0315	0.0315	0.0316	0.0273	0.0281	0.0299	0.0340	0.0280	0.0280	0.0295	0.0311	0.0275	0.0274	0.0262	0.0348	0.0345
K	0.0004	0.0001	0.0001	0.0005	0.0002	0.0000	0.0001	0.0003	0.0001	0.0001	0.0002	0.0003	0.0000	0.0003	0.0003	0.0001	0.0003	0.0002
Total:	4.0009	4.0122	3.9940	3.9918	3.9979	3.9972	3.9959	3.9996	3.9938	3.9959	3.9939	4.0001	3.9997	3.9973	4.0006	3.9960	4.0186	4.0160
Mg#	73.5	75.6	73.8	76.8	77.7	80.9	79.7	76.6	73.0	79.4	78.1	78.5	79.3	81.8	80.9	80.5	76.0	74.0
1 σ	2.6	2.2	2.4	1.2	1.3	1.1	0.72	0.54	0.76	0.24	1.9	0.35	1.1	0.28	1.0	0.35	5.9	2.7
Wo	37.0	40.0	36.1	37.6	38.9	39.8	39.4	41.1	39.0	38.0	35.7	38.2	38.0	37.3	39.9	37.5	38.9	37.7
En	46.2	45.4	47.0	47.9	47.5	48.7	48.3	45.1	44.5	49.2	50.2	48.5	49.2	51.3	48.6	50.3	46.5	46.0
Fs	16.8	14.6	16.9	14.5	13.7	11.5	12.3	13.8	16.5	12.8	14.1	13.3	12.8	11.4	11.5	12.2	14.6	16.3

Table T4 (continued).

Sample:*	GS55-19	GS85-20	GS85-20	GS102-21	GS102-21	FV2-1	FV5-2	FV13-3	FV21-4	FV29-5	FV29-5	FV35-6	FV37-7	FV35-6	FV37-7	FV39-8	FV45-9a	FV45-9b
N:	5	3	3	4	5	8	3	3	9	13	2	4	3	2	2	3	7	6
	C	F	C	F	C													
Major element oxides (wt%):																		
SiO ₂	50.80	51.69	53.12	52.99	52.73	53.34	51.87	52.30	52.44	52.87	53.28	52.91	51.47	50.38	50.63	52.48	53.17	52.98
TiO ₂	0.76	0.76	0.58	0.68	0.75	0.18	0.67	1.12	0.77	0.57	0.04	0.59	0.77	0.05	0.65	0.64	0.55	0.58
Al ₂ O ₃	2.53	2.61	2.67	2.57	2.89	1.26	3.45	2.49	2.51	2.18	0.26	2.03	3.19	0.51	2.68	3.02	2.54	3.25
FeOt	8.62	7.93	6.64	6.71	7.79	7.19	4.82	7.80	8.07	8.20	6.16	9.32	9.41	10.66	6.67	6.52	7.27	6.18
MnO	0.25	0.23	0.19	0.19	0.21	0.19	0.15	0.25	0.25	0.23	0.08	0.33	0.25	0.15	0.19	0.19	0.22	0.16
MgO	15.38	15.35	16.54	15.31	15.66	13.97	16.49	15.96	14.57	14.77	14.28	13.71	14.56	12.39	16.08	14.60	16.05	16.86
CaO	19.96	20.19	20.08	21.39	19.96	23.01	20.21	18.88	20.44	20.56	24.39	20.52	19.37	24.73	21.66	21.70	20.05	18.77
Na ₂ O	0.41	0.41	0.37	0.41	0.44	0.32	0.39	0.48	0.68	0.58	0.51	0.73	0.44	0.82	0.45	0.69	0.37	0.55
K ₂ O	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.01
P ₂ O ₅	0.01	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.03	0.00	0.01	0.02	0.00
NiO	0.01	0.00	0.00	0.02	0.02	0.02	0.03	0.00	0.01	0.02	0.01	0.00	0.04	0.06	0.04	0.01	0.01	0.03
Cr ₂ O ₃	0.03	0.06	0.07	0.22	0.03	0.13	0.46	0.03	0.04	0.04	0.00	0.02	0.01	0.01	0.04	0.19	0.08	0.09
Total:	98.75	99.25	100.27	100.50	100.49	99.66	98.56	99.35	99.79	100.04	99.02	100.17	99.55	99.79	99.11	100.08	100.33	99.45
Calculated cation proportions:																		
Si	1.9131	1.9272	1.9421	1.9423	1.9345	1.9845	1.9195	1.9379	1.9457	1.9567	1.9957	1.9662	1.9214	1.9310	1.8943	1.9346	1.9484	1.9414
Ti	0.0214	0.0212	0.0159	0.0187	0.0207	0.0050	0.0185	0.0313	0.0214	0.0159	0.0010	0.0165	0.0217	0.0015	0.0183	0.0178	0.0151	0.0159
Al	0.1122	0.1147	0.1151	0.1112	0.1250	0.0550	0.1503	0.1087	0.1095	0.0950	0.0114	0.0886	0.1410	0.0230	0.1183	0.1313	0.1095	0.1404
Cr	0.0008	0.0018	0.0020	0.0064	0.0010	0.0037	0.0134	0.0009	0.0011	0.0012	0.0000	0.0005	0.0003	0.0002	0.0013	0.0056	0.0024	0.0026
Fe	0.2710	0.2473	0.2026	0.2053	0.2385	0.2240	0.1489	0.2413	0.2501	0.2534	0.1927	0.2893	0.2938	0.3418	0.2083	0.2007	0.2223	0.1890
Mn	0.0078	0.0074	0.0060	0.0060	0.0066	0.0061	0.0049	0.0080	0.0078	0.0072	0.0025	0.0104	0.0081	0.0049	0.0059	0.0060	0.0067	0.0050
Mg	0.8627	0.8530	0.9007	0.8358	0.8556	0.7731	0.9092	0.8806	0.8052	0.8138	0.7970	0.7587	0.8097	0.7072	0.8965	0.8017	0.8760	0.9206
Ca	0.8053	0.8061	0.7862	0.8397	0.7843	0.9173	0.8012	0.7498	0.8122	0.8150	0.9788	0.8164	0.7744	1.0152	0.8681	0.8568	0.7870	0.7366
Na	0.0296	0.0294	0.0259	0.0292	0.0315	0.0233	0.0281	0.0347	0.0491	0.0420	0.0365	0.0525	0.0315	0.0616	0.0328	0.0492	0.0262	0.0392
K	0.0000	0.0000	0.0001	0.0001	0.0001	0.0020	0.0006	0.0006	0.0003	0.0003	0.0001	0.0001	0.0004	0.0005	0.0002	0.0003	0.0002	0.0003
Total:	4.0239	4.0081	3.9965	3.9948	3.9977	3.9939	3.9945	3.9937	4.0024	4.0004	4.0158	3.9990	4.0022	4.0869	4.0441	4.0039	3.9937	3.9910
Mg#	79.5	78.7	81.1	79.5	77.9	76.1	85.0	77.5	76.6	76.4	83.2	72.3	73.7	80.7	88.4	80.6	78.9	81.7
1 σ	2.3	1.2	0.50	0.44	0.43	9.4	1.1	1.8	1.8	2.9	0.03	0.56	0.50	0.71	9.1	2.7	1.4	0.85
Wo	38.2	38.2	37.6	40.4	37.8	44.5	37.3	36.2	40.3	39.8	48.4	40.1	36.5	45.0	38.3	41.7	37.6	34.6
En	49.1	48.6	50.6	47.3	48.5	42.5	53.3	49.5	45.8	46.0	42.9	43.3	46.8	44.4	54.8	47.0	49.2	53.4
Fs	12.7	13.2	11.8	12.2	13.8	13.0	9.4	14.3	14.0	14.3	8.7	16.6	16.7	10.6	7.0	11.3	13.2	12.0

Table T4 (continued).

Sample:*	FV45-10	FV58-13	FV61-14	FV62-15	FV63-16	FV65-17	FV81-20
N:	6	7	12	9	5	5	2
Major element oxides (wt%):							
SiO ₂	52.83	51.90	52.08	51.74	51.51	51.19	50.38
TiO ₂	0.71	0.76	0.59	0.71	0.56	0.71	0.52
Al ₂ O ₃	2.58	2.52	2.18	2.63	2.13	2.77	2.68
FeOt	7.91	9.05	8.90	8.08	8.26	7.77	7.68
MnO	0.22	0.27	0.28	0.22	0.30	0.24	0.24
MgO	15.60	15.06	14.74	15.53	14.24	15.49	14.85
CaO	19.29	20.29	21.13	21.05	22.08	20.52	21.46
Na ₂ O	0.55	0.45	0.49	0.49	0.61	0.52	0.73
K ₂ O	0.01	0.01	0.01	0.01	0.01	0.01	0.00
P ₂ O ₅	0.01	0.02	0.02	0.01	0.02	0.03	0.02
NiO	0.03	0.02	0.02	0.01	0.03	0.01	0.02
Cr ₂ O ₃	0.04	0.02	0.04	0.02	0.03	0.05	0.09
Total:	99.78	100.36	100.48	100.49	99.77	99.31	98.68
Calculated cation proportions:							
Si	1.9498	1.9246	1.9328	1.9127	1.9285	1.9116	1.9033
Ti	0.0197	0.0211	0.0165	0.0197	0.0158	0.0200	0.0149
Al	0.1122	0.1103	0.0953	0.1145	0.0940	0.1219	0.1194
Cr	0.0013	0.0005	0.0011	0.0006	0.0008	0.0016	0.0027
Fe	0.2437	0.2801	0.2757	0.2493	0.2582	0.2420	0.2423
Mn	0.0068	0.0083	0.0088	0.0068	0.0094	0.0077	0.0077
Mg	0.8577	0.8317	0.8144	0.8551	0.7941	0.8612	0.8357
Ca	0.7624	0.8057	0.8399	0.8336	0.8854	0.8218	0.8683
Na	0.0395	0.0326	0.0356	0.0349	0.0439	0.0374	0.0533
K	0.0007	0.0004	0.0004	0.0004	0.0005	0.0003	0.0001
Total:	3.9938	4.0153	4.0205	4.0277	4.0305	4.0255	4.0476
Mg#	77.0	76.9	77.6	81.6	80.1	81.9	85.0
1 σ	1.2	1.5	1.8	2.1	1.4	2.6	3.8
Wo	36.9	39.9	41.7	40.0	43.5	39.9	40.6
En	48.5	46.2	45.3	48.9	45.2	49.2	50.5
Fs	14.5	13.9	13.1	11.1	11.3	10.9	8.8