

APPENDIX 5

EPMA analyses of biotite of the mafic plutonic rocks and calculated cation numbers

Sample no.	Norite (HK5)					Gabbro (HGT2)				
SiO ₂	36.47	36.25	36.98	36.57	36.59	36.83	37.11	36.97	36.55	36.72
TiO ₂	3.89	4.20	4.17	3.57	3.71	3.46	3.20	3.60	3.55	3.74
Al ₂ O ₃	14.38	14.46	14.63	14.40	14.63	14.92	14.98	14.42	14.33	14.20
FeO	19.25	19.55	19.40	19.81	19.36	17.68	17.90	17.97	21.17	21.07
MnO	0.00	0.00	0.00	0.28	0.00	0.30	0.46	0.33	0.20	0.23
MgO	11.22	11.72	11.54	9.81	11.30	11.97	12.26	12.20	9.46	9.66
CaO	0.06	0.03	0.00	0.28	0.03	0.04	0.05	0.09	0.25	0.26
Na ₂ O	0.08	0.06	0.06	0.13	0.10	0.13	0.14	0.06	0.06	0.04
K ₂ O	9.95	10.10	10.22	8.81	10.05	10.19	10.11	10.26	9.06	9.14
F	1.13	1.17	1.01	1.50	1.00	1.17	1.44	1.45	1.02	0.44
Total	95.30	96.38	97.00	93.66	95.77	95.52	96.21	95.90	93.65	95.42
Number of cations on the basis of 22 oxygens										
Si	5.59	5.51	5.57	5.69	5.58	5.60	5.60	5.61	5.70	5.68
Ti	0.45	0.48	0.47	0.42	0.43	0.40	0.36	0.41	0.42	0.89
Al	2.60	2.59	2.60	2.64	2.63	2.67	2.66	2.58	2.63	2.30
Fe	2.47	2.48	2.44	2.58	2.47	2.25	2.26	2.28	2.63	2.58
Mn	0.00	0.00	0.00	0.04	0.00	0.04	0.06	0.04	0.03	0.06
Mg	2.56	2.66	2.59	2.27	2.57	2.71	2.79	2.76	2.20	2.56
Ca	0.01	0.00	0.00	0.05	0.00	0.01	0.01	0.01	0.04	0.09
Na	0.02	0.02	0.02	0.04	0.03	0.04	0.04	0.02	0.02	0.25
K	1.95	1.96	1.96	1.75	1.96	1.98	1.95	1.99	1.80	1.69
Total	15.65	15.70	15.65	15.47	15.67	15.68	15.70	15.69	15.48	15.43
Fe/(Fe+Mg)	0.49	0.48	0.49	0.53	0.49	0.45	0.45	0.45	0.54	0.55