

Electronic Supplementary Materials

Table A1 - Summary of the data on biotite-hornblende monzogranite (BHMzG) samples

Sample	Modal Classification	Modal opaques Vol%	Log MS (K)	SM population	Opaque phases in decreasing relative abundance from the left to the right			(FeO)/(FeO + MgO) in whole rock	Fe/(Fe + Mg) in amphibole vs fO ₂ **	Fe/(Fe + Mg) in biotite vs granitic series*
PFR-16***	BHMzG	0.10	-3.80	Population A	Ilm (Ttn)			0.90	Low	Ilmenite series
LIF-21A	BHMzG	0.10	-3.74	Population A	Ilm (Ttn)				Low	Ilmenite series
AMP-23	HBMzG	0.10	-3.64	Population A	Ilm (Ttn)			0.95	Low	Ilmenite series
LIF-27A	BHMzG	0.11	-3.52	Population A	Ilm (Ttn)				Low	Ilmenite series
MYF-77	BHMzG	0.40	-3.49	Subpopulation B1	Ilm (Ttn)	Mag→(Mrt)		0.84	Low	Ilmenite series
PFA-64	BHGd	1.20	-3.24	Subpopulation B1	Ilm (Ttn)	Py→ Gth		0.88	Low/ intermediate	Transitional series
MAR.16	BHMzG	0.40	-3.21	Subpopulation B1	Ilm (Ttn)	Mag→(Mrt)		0.95		
MDP-57A***	BHGd	0.22	-3.11	Subpopulation B1	Ilm (Ttn)	Mag→(Mrt)		0.91	Low	Transitional series
PFA-77	BHMzG	0.20	-3.09	Subpopulation B1	Ilm (Ttn)	Mag→(Mrt)	(Py)→ Gth	0.93	Low	Ilmenite series
AMP-47A	BHMzG	0.40	-2.72	Subpopulation B3	Mag→(Mrt)	(Py)→ Gth	Ilm (Exs Hem) +Ttn	0.87		
LIF-26A	BHMzG	0.22	-2.62	Subpopulation B3	Mag→(Mrt)	(Py)→ Gth	Ilm (Exs Hem) +Ttn	0.87	Low	Transitional series
MYF-78	BHMzG	0.30	-2.46	Subpopulation B1	Ilm (Ttn)	Mag→(Mrt)		0.90		
LIF-09	BHMzG	0.33	-2.44	Subpopulation B3	Mag→(Mrt)	(Py)→ Gth			Low	Transitional series
LIF-26B	BHMzG	0.33	-2.43	Subpopulation B3	Mag→(Mrt)	Ilm (Exs Hem) +Ttn	(Py)→ Gth		Low	Transitional series
LIF-19	BHMzG	0.40	-2.43	Subpopulation B3	Mag→(Mrt)	Ilm (Exs Hem) +Ttn			Low	Transitional series
PFA-80	HBGd	0.80	-2.29	Subpopulation B3	Mag→(Mrt)	(Py)→ Gth	Ilm (Exs Hem) +Ttn	0.84	Low/ intermediate	Magnetite series
MYF-64	BHGd	1.20	-2.29	Subpopulation B3	Mag→(Mrt)	(Py)→ Gth	Ilm (Exs Hem) +Ttn	0.85		
MDP-35	HBMzG	0.40	-2.22	Subpopulation C1	Mag→(Mrt)			0.89	Low	Transitional series
PFA-39***	BHGd	0.80	-2.22	Subpopulation C1	Mag→(Mrt)	(Py)→ Gth	Ilm (Exs Hem) +Ttn	0.85	Intermediate	Magnetite series
MAR.23	BHMzG	0,28	-2,22	Subpopulation C1	Mag→(Mrt)	(Py)→ Gth		0,89		

Abbreviations (according to Whitney and Evans 2010): Ilm (Ttn) = ilmenite crystals associated with titanite; Ilm (Exs Hem) + Ttn = ilmenite crystals with fine hematite-exsolution lamellae and associated titanite; Mag→(Mrt) = Magnetite partially altered to martite; Py→ Gth = Pyrite partial or intensely altered to goethite; BHMzG = biotite-hornblende monzogranite; HBMzG = hornblende-biotite monzogranite; BHGd = biotite-hornblende granodiorite; HBGd = hornblende-biotite granodiorite; *[(Ilmenite series, Magnetite series and Transitional between magnetite and ilmenite series according to Anderson et al. (2008) and Dall'Agnol et al. (2017)]. Oxygen Fugacity: **Low and Intermediate according to Anderson and Smith (1995). Semiquantitative analyses by EDS under a scanning electron microscope (SEM) or ***quantitative chemical analyses by **WDS** in electron microprobe.