

Electronic Supplementary Materials

Table A3 - Summary of the data on biotite monzogranite (BMzG) 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 _t /(FeO _t + MgO) in whole rock	Fe/(Fe + Mg) in amphibole vs fO ₂ **	Fe/(Fe + Mg) in biotite vs granitic series*
MDP-02B	BGd	0.20	-2.46	Subpopulation B3	Mag→(Mrt)	(Py)→ Gth			Intermediate	Magnetite series
MDP-11A	BMzG	0.28	-2.37	Subpopulation B3	Mag→(Mrt)	(Py)→ Gth			Intermediate	Magnetite series
MDP-02A	BMzG	0.70	-2.30	Subpopulation B3	Mag→(Mrt)	Py→ Gth		0.79	Intermediate	Magnetite series
MD-01	BMzG	0.40	-2.24	Subpopulation C1	Mag→(Mrt)	Py+(ccp)→ Gth		0.79		
LIF-17A	BMzG	0.30	-2.23	Subpopulation C1	Mag→(Mrt)	Py→ Gth			Low/Intermediate	Magnetite series
LIF-24	BMzG	0.20	-2.22	Subpopulation C1	Mag→(Mrt)	(Py)→ Gth			Intermediate	Magnetite series
LIF-18B	BMzG	0.20	-2.20	Subpopulation C1	Mag→(Mrt)	Py +(ccp) → Gth			Intermediate	Magnetite series
MDP-55***	BMzG	0.65	-2.20	Subpopulation C1	Mag→(Mrt)	Py→ Gth		0.79	Intermediate	Magnetite series
LIF-30A	BMzG	0.40	-2.13	Subpopulation C1	Mag→(Mrt)	Py+(ccp)→ Gth			Intermediate	Magnetite series
MAR.30	BMzG	0.90	-2.10	Subpopulation C1	Mag→(Mrt)			0.81		
LIF-13C	BMzG	0.28	-2.07	Subpopulation C1	Mag→(Mrt)	Py→ Gth			Intermediate	Magnetite series
LIF-31	BMzG	0.40	-2.06	Subpopulation C1	Mag→(Mrt)	Py→ Gth			Intermediate	Magnetite series
LIF-04a***	BMzG	0.95	-1.99	Subpopulation C2	Mag→(Mrt)			0.78	Intermediate/High	Magnetite series
MDP-03A	BMzG	0.95	-1.98	Subpopulation C2	Mag→(Mrt)	(Py)→ Gth	Ilm (Exs Hem) +Ttn	0.79		Magnetite series
MDP-03B	BMzG	0.55	-1.90	Subpopulation C2	Mag→(Mrt)	Py+(ccp)→ Gth	Ilm (Exs Hem) + Ttn	0.80		Magnetite series
LIF-16A	BMzG	0.50	-1.80	Subpopulation C2	Mag→(Mrt)	(Py)→ Gth			Intermediate/High	Magnetite series

Abbreviations (according to Whitney and Evans 2010): Mag→(Mrt) = Magnetite partially altered to martite; Py→ Gth = Pyrite partial or intensely altered to goethite; Ilm (Exs Hem) + Ttn = ilmenite crystals with fine hematite-exsolution lamellae and associated titanite. (ccp) = subordinate calcopyrite. BGd = biotite granodiorite; BMzG = biotite monzogranite.

*[(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, Intermediate and High 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.