

Appendix Table 4

P-T-X parameters used in the Cpx REE models.

Leuthold J^{1,2*}, Blundy J¹, Holness MB², Sides R²

Successive episodes of reactive liquid flow through a layered intrusion (Unit 9, Rum Eastern Layered Intrusion, Scotland)

Contrib Mineral Petrol

¹ School of Earth Sciences, University of Bristol, BS8 1RJ, Bristol, United Kingdom

² Department of Earth Sciences, University of Cambridge, CB2 3EQ, Cambridge, United Kingdom

* corresponding author: julien.leuthold@bristol.ac.uk

	liquid Mg#	P [Gpa]	T [°C]	melt F [%]	partial melting [%]	mix with picrite [%]
core0 (peridotite)	0.57	0.05	1185	0.8	0	1
core1 (troctolite+gabbro+poikilitic gabbro)	0.56	0.02	1180	0.8	0	1
core2 (troctolite)	0.58	0.02	1185	0.59	0.62	0.55
core2 (poikilitic gabbro)	0.48	0.02	1160	0.41	0.62	0.55
rim (peridotite)	0.31	0.02	1100	0.25	0	1
rim (troctolite)	0.52	0.02	1170	0.52	0.72	0.7
rim (poikilitic gabbro)	0.64	0.02	1200	0.85	0.72	0.7

Appendix Table 4:

Columns B-D: Liquid Mg#, pressure and temperature parameters used in the Wood and Blundy (1997) formalism to calculate the Cpx equilibrium liquid.

Column E: Melt fraction of the Rum parental liquid, inferred from MELTS (Ghiorso and Sack, 1995; Asimov and Ghiorso, 1998) calculations at the given temperature.

Columns F, G: Proportions of gabbro partial melting and mix with picritic liquid to model the Cpx REE evolution.