

Oxides [wt%]	Pelite (avg.) ^{1,4}	Rhyolite ^{1,4}	Andesite ^{1,4}	MORB ^{1,4}	Hydrated Peridotite ^{1,4}	Serpentinite ^{2,4}	Bulk DMM ^{3,5}
SiO ₂		61.5	72.8	57.9	49.2	44.71	44.21
Al ₂ O ₃		18.6	13.3	17	16.1	4.16	3.13
FeO		10	2.44	6.98	10.22	8.07	8.898
MgO		3.81	0.39	3.33	6.44	39.2	39.24
CaO	-	-		6.79	10.5	2.42	3.06
Na ₂ O		1.46	3.55	3.48	3.01	0.22	-
K ₂ O		3.02	4.3	1.62	1.1	-	-
H ₂ O	sat	sat	sat	sat	sat	sat	-
Solution models							
Opx(HP)	+	+	+	+	+	+	-
Gt(GCT)	+	+	+	+	+	+	-
feldspar	+	+	+	+	+	+	-
Chl(HP)	+	+	+	+	+	+	-
Sp(HP)	+	+	+	+	+	+	-
O(HP)	+	+	+	+	+	+	-
Stlp(M)	+	+	+	+	-	-	-
Carp	+	+	+	+	-	-	-
Sud	+	+	+	+	-	-	-
Bio(TCC)	+	+	+	+	-	-	-
St(HP)	+	+	+	+	-	-	-
Ctd(HP)	+	+	+	+	-	-	-
Pheng(HP)	+	+	+	+	-	-	-
hCrd	+	+	+	+	+	+	-
Omph	-	-	+	+	+	+	-
GlTrTsPg	-	-	+	+	+	+	-
Pu(M)	-	-	+	+	+	-	-
Act(M)	-	-	+	+	+	+	-
T	-	-	+	-	+	+	-
A-phase	-	-	-	-	+	+	-
Chum	-	-	-	-	+	+	-
B	-	-	-	-	+	+	-
Wus	-	-	-	-	+	+	-
Fperh	-	-	-	-	+	+	-
Atg(PN)	-	-	-	-	+	+	-
Bulk DMM							
C2/c	-	-	-	-	-	-	+
Wus	-	-	-	-	-	-	+
Pv	-	-	-	-	-	-	+
Pl	-	-	-	-	-	-	+
Sp	-	-	-	-	-	-	+
O	-	-	-	-	-	-	+
Wad	-	-	-	-	-	-	+
Ring	-	-	-	-	-	-	+
Opx	-	-	-	-	-	-	+
Cpx	-	-	-	-	-	-	+
Aki	-	-	-	-	-	-	+
Gt_maj	-	-	-	-	-	-	+
Ppv	-	-	-	-	-	-	+
CF	-	-	-	-	-	-	+

Explanation and References

sat = saturation

¹Winter 2013

²Pelletier 2008

³Workman & Hart 2005

⁴Holland and Powell 1998, updated in 2002

⁵Stixrude 2011

Full references given in supplementary material