

TABLE 4
Partial analyses, using electron probe microanalyser, of crystalline phases from pyrolite

Temperature (°C)	Pressure (kb)	Time (hrs)	Sample capsule	Phase analysed	Analysed constituents				Garnet content of assemblage	Remarks
					Al ₂ O ₃	Cr ₂ O ₃	FeO	CaO		
Pyrolite III less 40% olivine										
1500	22.5	0.33	Pt	Opx	3.5	—	4.0	2.2	Nil	≈ 50% melting, Ol+Opx+Quench, Opx > Ol
1500	27.0	0.33	Pt	Opx	5.4	—	5.2	2.4	Nil	Minor melting, Ol+Opx+Cpx+Quench
1500	29.3	0.33	Pt	Opx	5.7	0.9	5.2	2.4	Nil	No identifiable melting, Ol+Opx+Cpx
1500	30.4	0.33	Pt	Opx	5.9	0.8	5.3	2.4	Trace	No identifiable melting, Ol+Opx+Cpx+Ga
				Ol	≤ 0.5	—	8.5	≤ 0.5	Trace	
1500	31.5	0.33	Pt	Opx	5.6	0.7	5.7	2.4	Minor	Ol+Opx+Cpx+Ga
				Ga	23.0	1.7	—	4.9	—	
1500	33.8	0.33	Pt	Opx	4.8	—	5.2	2.3	Minor	Ol+Opx+Cpx+Ga
1500	36.0	0.33	Pt	Opx	3.9	—	5.5	2.3	Common	Ol+Opx+Cpx+Ga
				Ga	> 16	—	≈ 8.0	≈ 4.3	—	
				Whole sample-centre	6.1	—	7.0	5.2	—	
1450	27.0	1.0	Pt	Opx	5.4	—	4.2	2.3	Nil	No identifiable melting, Ol+Opx+Cpx
				Ol	0.1	—	8.6	0.3	—	
1400	22.5	0.66	Pt	Opx	3.9-5.1	—	4.8-5.7	2.4	Nil	Local patchy melting, Ol+Opx+Cpx
1400	24.8	1.0	Pt	Opx	4.3	—	5.1	2.4	Nil	Minor melting ?water access, Ol+Opx+Cpx
1400	25.9	1.0	Pt	Opx	5.0	0.8	5.6	2.2	Nil	No identifiable melting, Ol+Opx+Cpx
				Cpx	≥ 5.1	> 1.0	—	≥ 10.0	—	No identifiable melting, Ol+Opx+Cpx+Ga
1400	27.0	1.0	Pt	Opx	5.5	—	5.8	2.1	Trace	
				Cpx	6.6	—	4.8	11.4	—	
				Ga	22.0	1.7	6.8	5.3	—	
1350	24.8	2.0	Graphite	Opx	6.1	—	7.0	2.1	Nil	No garnet, no melting, Ol+Opx+Cpx
				Cpx	7.7	—	5.8	14.5	—	
				Ol	≤ 0.2	—	11.6	≤ 0.2	—	
1350	25.9	2.0	Graphite	Opx	5.5	—	7.1	2.1	Minor	No melting, Ol+Opx+Cpx+Ga
				Cpx	7.3	—	5.6	14.5	—	
				Ol	≤ 0.6	—	12.0	≤ 0.4	—	
				Ga	≥ 20.2	—	7.9	6.9	—	
1350	27.0	2.0	Graphite	Opx	4.9	—	7.1	1.9	Minor	No melting, Ol+Opx+Cpx+Ga
				Cpx	6.7	—	5.4	≥ 14.1	—	
1300	36.0	4	Graphite	Opx	2.6	—	7.2	1.5	Common	Ol+Opx+Cpx+Ga
				Cpx	4.6	—	4.7	≥ 13.9	—	
				Ol	≤ 0.3	—	12.5	≤ 0.2	—	
				Ga	23.5	—	8.2	4.3	—	
1300	40.5	4	Graphite	Opx	2.2	—	7.2	1.5	Common	Ol+Opx+Cpx+Ga
				Ga	≥ 20.9	—	8.7	5.6	—	
Pyrolite I less 50% olivine										
1400	22.5	1	Pt	Opx	3.0	—	4.2	2.2	Nil, uncommon spinel	Minor melting, Ol+Opx+Cpx+spinel
1400	24.8	1	Pt	Opx	5.9	—	5.0	2.1	Trace garnet, uncommon spinel	No melting, Ol+Opx+Cpx+Ga+spinel

Fig. 2. $2\% \text{Al}_2\text{O}_3$ and 1
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