

Table 2. Experimental conditions, coexisting phases, and partition coefficients

Run no.	Starting material	T (°C)	P (GPa)	Time (min)	log fO ₂ (relative to IW)	Observed phases						Partition coefficients				
K-bearing samples						Metal	Sulfide	Silicate Melt	Opx	St	U-Th-oxides	log D _K	σ			
#922	K-1	1650	1	90	−3.82	X		X	X		Met/sil	−1.8	0.62			
#925	K-1	1700	1	45	−3.51	X		X			Met/sil	−1.79	0.22			
#306	K-4	1900	5	5	−3.25	X	X	X			Met/sil	−3.87	0.3			
											Sulf/sil	−2.57	0.25			
#921	K-1	1600	1	90	−3.93	X	X	X	X		Met/sil	−1.76	0.21			
#919	K-1	1550	1	180	−3.95	X	X	X	X		Met/sil	−2.11	0.06			
#916	K-1	1500	1	210	−3.83	X		X	X		Met/sil	−1.79	0.16			
#1027	K-6	1700	1	45	−2.84	X	X	X			Met/sil	−2.03	0.18			
											Sulf/sil	−1.5	0.28			
#1026	K-4	1700	1	50	−2.98	X	X	X			Met/sil	−1.82	0.14			
											Sulf/sil	−1.52	0.21			
#999	K-2	1700	1	45	−3.83	X	X	X			Met/sil	−1.69	0.2			
#1001	K-3	1700	1	45	−4.44	X		X			Met/sil	−3	0.27			
#1029	K-5	1700	1	50	−5.52	X		X			Met/sil	−2.47	0.11			
#1000	K-4	1700	1	45	−5.22	X		X			Met/sil	−2.84	0.16			
PR1577	K-7	1800	3.5	10	−6.46	X		X		X	Met/sil	−2.85	0.35			
PR1578	K-8	1800	3.5	4	−6.05	X		X		X	Met/sil	−2.79	0.32			
U-Th-bearing samples												log D _U	σ	log D _{Th}	σ	
#924	U-Th-1	1650	1	90	−3.52	X	X	X	X		X	Met/sil	−4.62	0.08	−3.41	0.15
#923	U-Th-1	1700	1	45	−3.82	X		X				Met/sil	−4.51	0.21	−4.99	0.01
#910	U-Th-1	1580	1	120	−3.23	X	X	X				Met/sil	−4.05	0.31	−4.62	0.31
#907	U-Th-1	1550	1	140	−3.14	X	X	X	X		X	Met/sil	−3.53	0.51	−3.77	0.18
#974	U-Th-5	1700	1	45	−3.16	X	X	X				Met/sil	−3.28	0.48	−4.15	0.67
												Sulf/sil	0.32	0.1	−0.83	0.12
#904	U-Th-1	1500	1	180	−3.2	X	X	X	X		X	Met/sil	−4.16	0.12	−4.01	0.19
#909	U-Th-1	1600	1	90	−4.19	X		X	X			Met/sil	−4.4	0.27	−5.34	0.04
#975	U-Th-6	1700	1	45	−3.59	X	X	X				Met/sil	−4.48	0.41	−5.08	0.73
												Sulf/sil	0.32	0.14	−0.86	0.18
#420	U-Th-4	1900	3	15	−3.89	X		X				Met/sil	−2.7	0.08	−5.33	0.14
#305	U-Th-3	1900	5	5	−3.9	X	X	X				Met/sil	−4.41	0.28	−2.99	0.52
												Sulf/sil	0.4	0.15	−0.88	0.23
#967	U-Th-2	1700	1	45	−4.29	X		X				Met/sil	−3.21	0.22	−3.96	0.85
#1030	U-Th-4	1700	1	45	−5.4	X		X				Met/sil	−2.25	0.09	−4.85	0.16
#972	U-Th-4	1700	1	45	−5.39	X		X				Met/sil	−2.3	0.1	−5.08	0.13
PR1527	U-Th-7	1900	3.5	5	−5.37	X		X	X			Met/sil	−3.3	0.16	−5.67	0.04