

Supporting Information for

Evidence for an active, transcrustal magma system in the last 60 ka and eruptive degassing budget (H₂O, CO₂, S, F, Cl, Br): The case of Dominica

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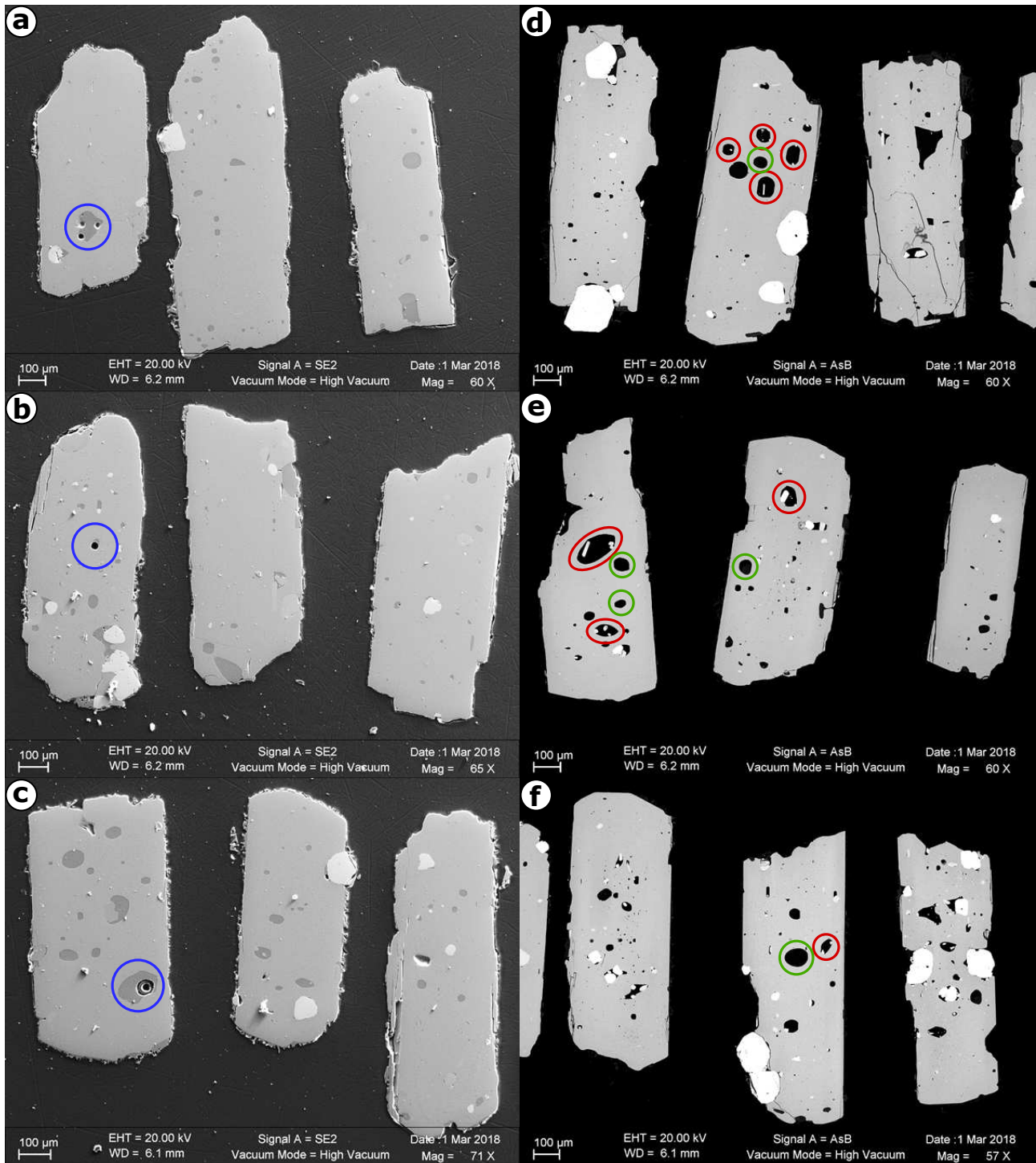


FIGURE S1 – a, b, c) Examples of bubble-bearing melt inclusions in orthopyroxenes excluded from the selection (blue circles). Secondary electron images. d, e, f) Examples of post-entrapment recrystallized melt inclusions (red circles) and non-modified melt inclusions (green circles) in orthopyroxenes. Back-scattered electron images.

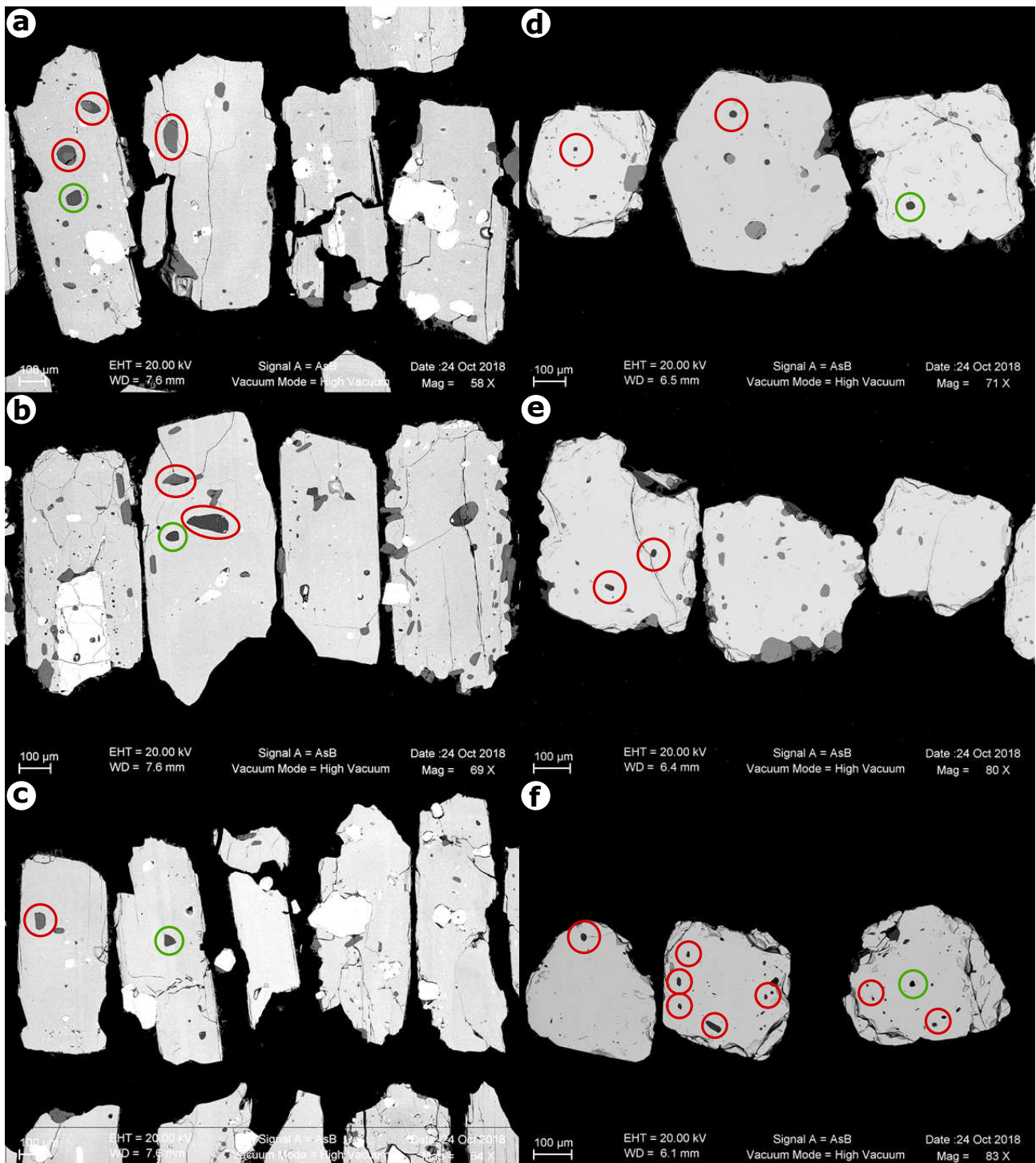


FIGURE S2 – a, b, c) Examples of post-entrapment recrystallized melt inclusions (red circles) and non-modified melt inclusions (green circles) in clinopyroxenes. Back-scattered electron images. d, e, f) Examples of post-entrapment recrystallized melt inclusions (red circles), melt inclusions too small to be analysed (dashed red circles) and non-modified melt inclusions (green circles) in magnetites. Back-scattered electron images.

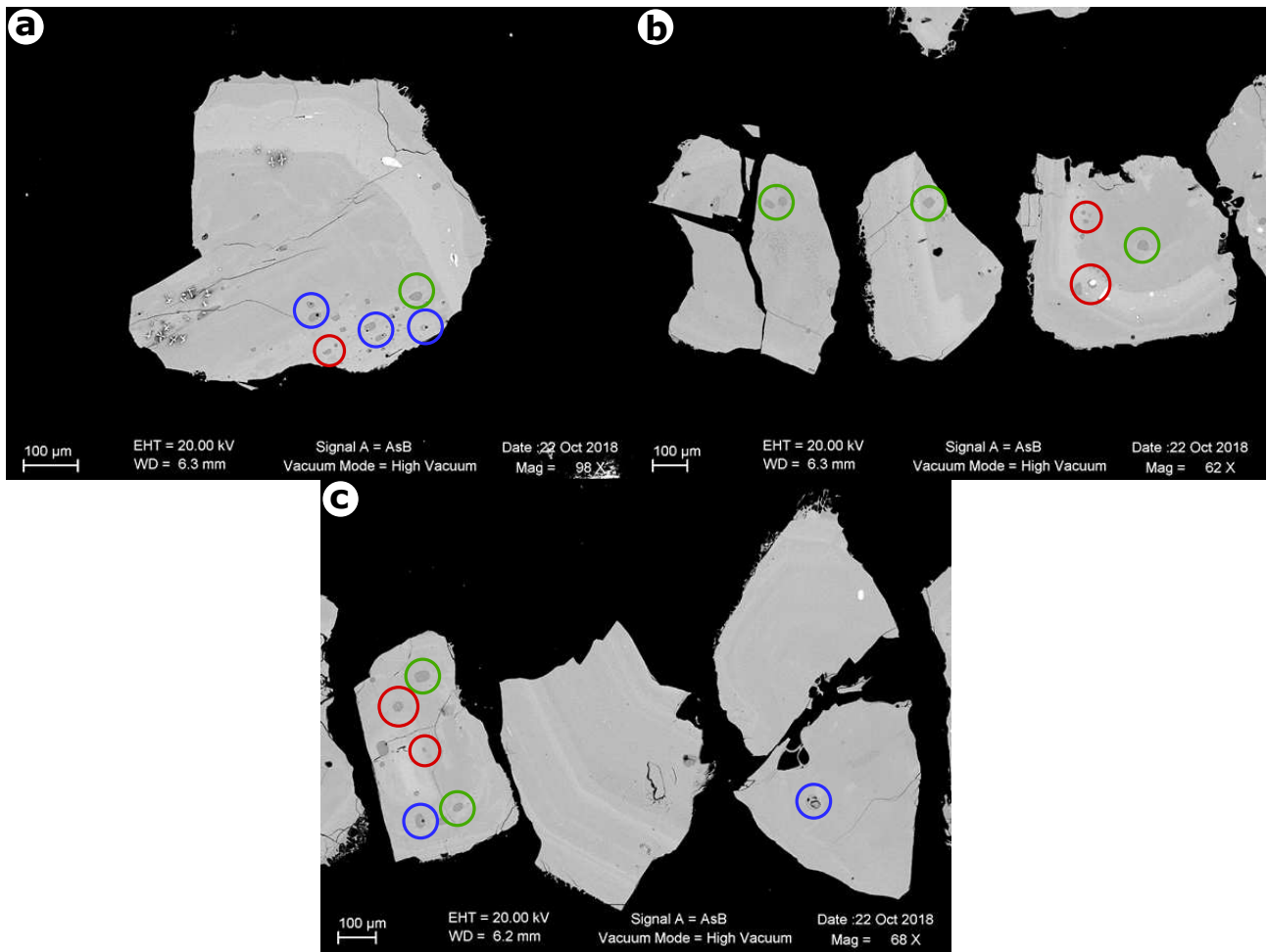


FIGURE S3 – Examples of bubble-bearing melt inclusions (blue circles), of post-entrapment recrystallized melt inclusions (red circles), melt inclusions too small to be analysed (dashed red circles) and non-modified melt inclusions (green circles) in plagioclases. Back-scattered electron images.

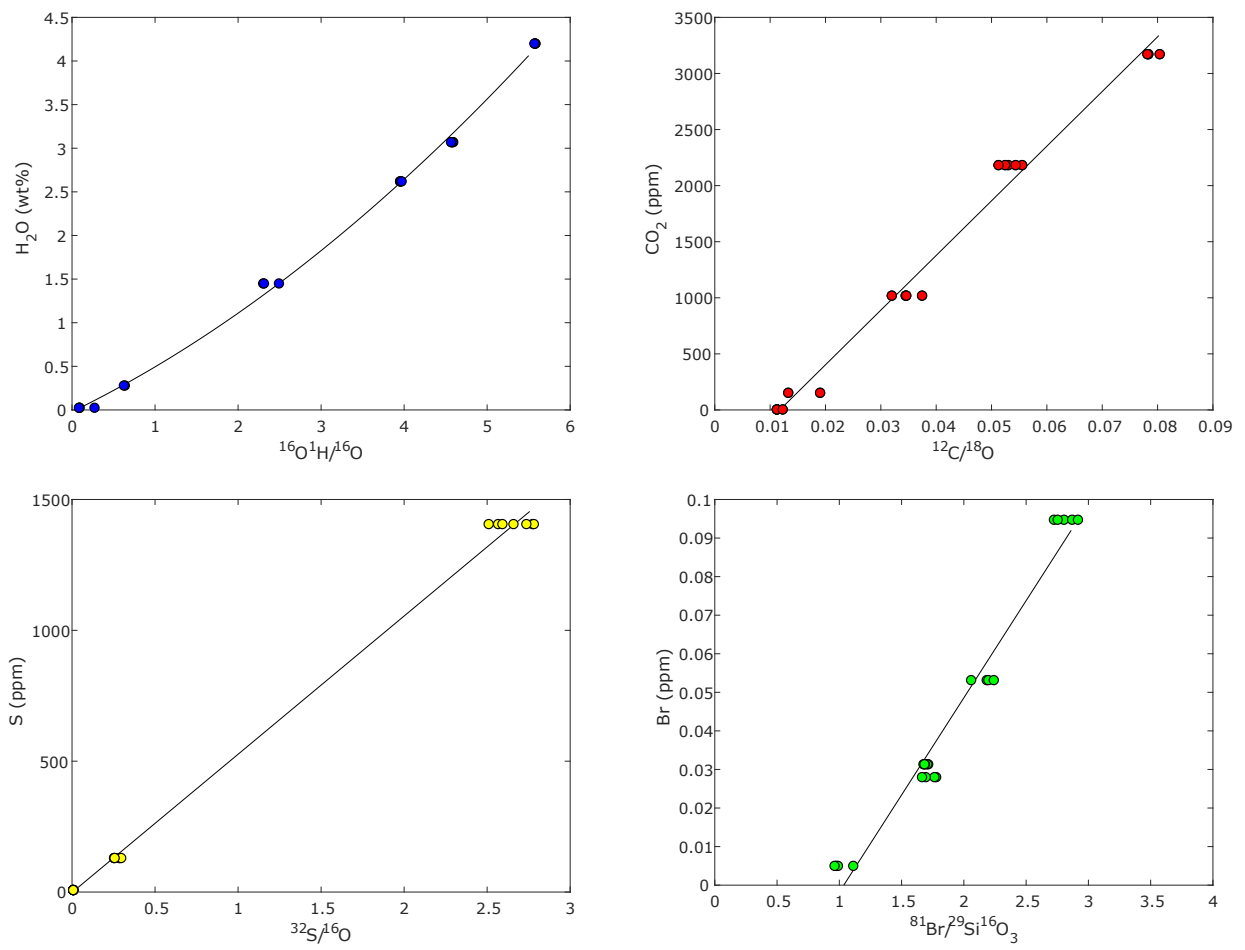


FIGURE S4 – SIMS calibration curves for H₂O, CO₂, S and Br.

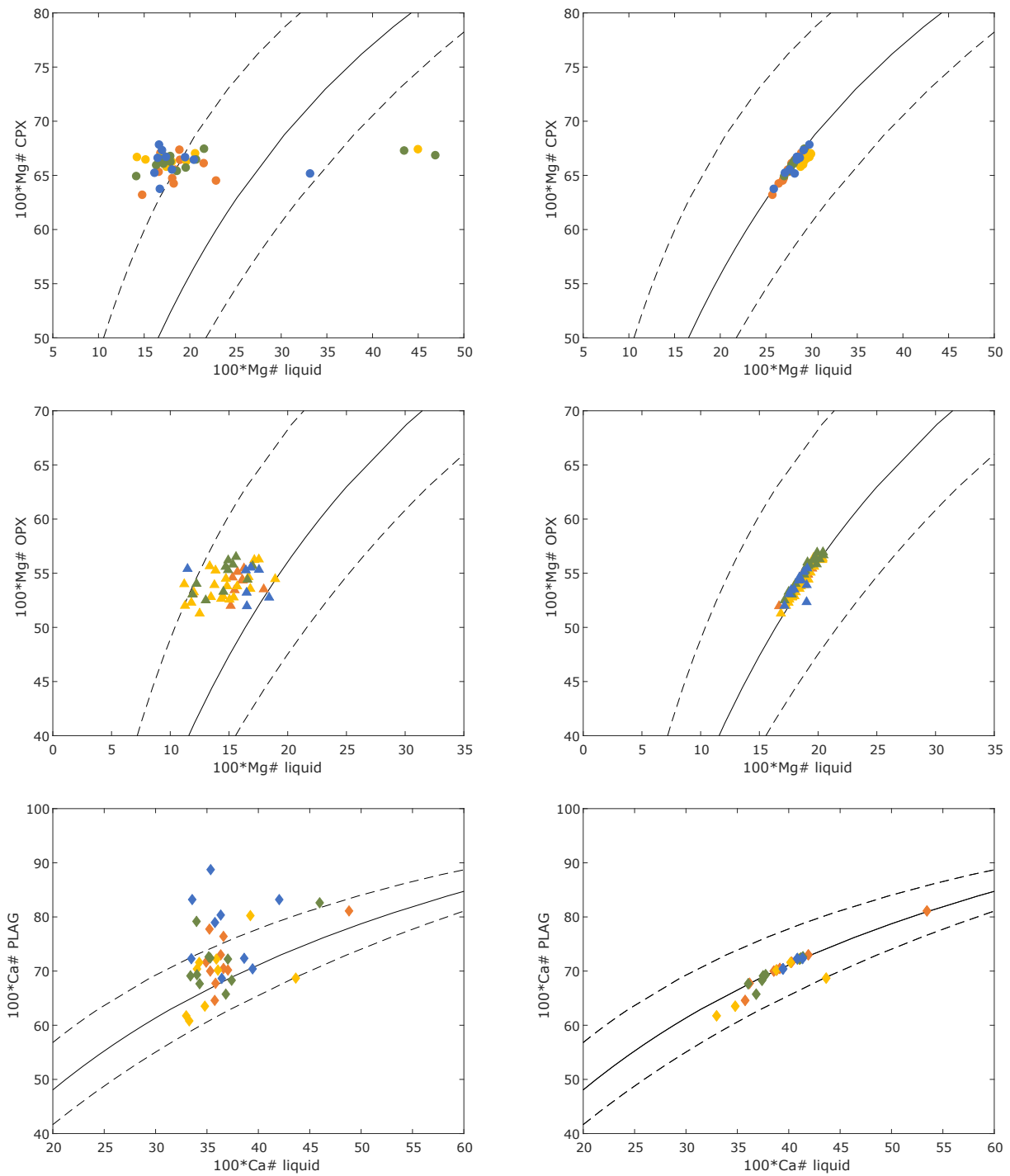


FIGURE S5 – Rhodes diagrams showing melt inclusions raw values (left column) and re-equilibrated (right column). Plain curve corresponds to equilibrium, dashed curves correspond to equilibrium \pm 8%.

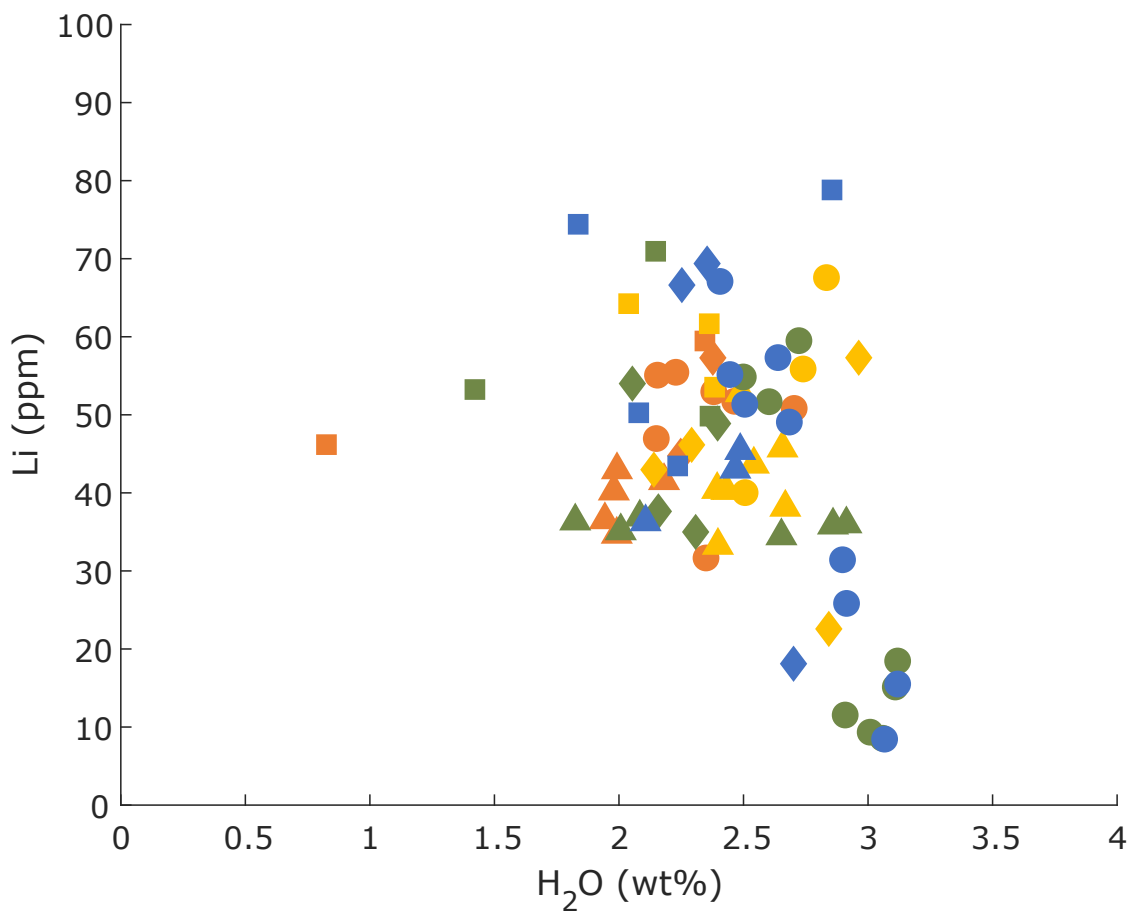


FIGURE S6 – Li vs H₂O concentrations.

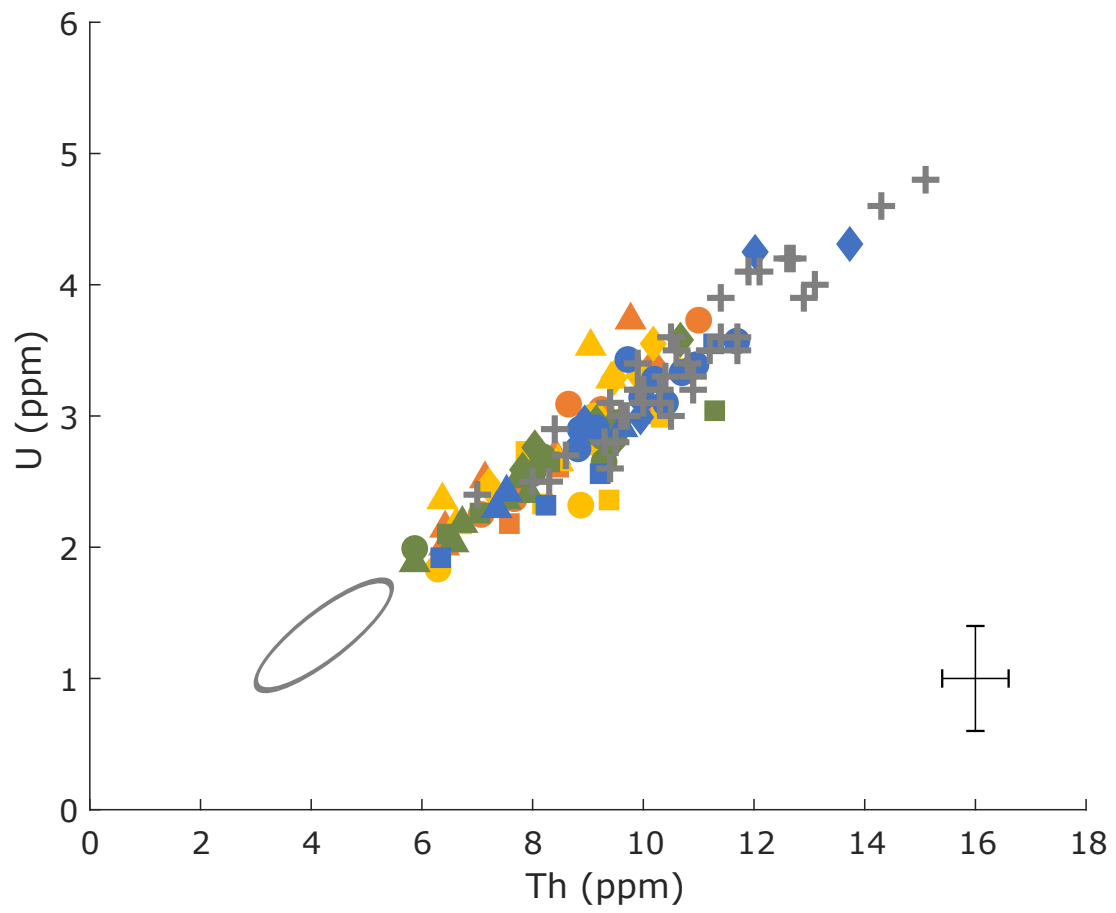


FIGURE S7 – U vs Th concentrations. Symbols are the same as for figure 3. Grey cross correspond to ignimbrites melt inclusions, and grey domain corresponds to ignimbrites whole rocks (Balcone-Boissard et al., 2018).

Table S1 : Major element composition and S and halogen elements concentrations in whole rocks

	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MnO	MgO	CaO	Na ₂ O	K ₂ O	TiO ₂	P ₂ O ₅	F (ppm)	SD	Cl (ppm)	SD	Br (ppm)	SD	SO ₄ (ppm)	SD	S (ppm)
Goodwill	62.7	17.0	6.4	0.1	2.3	6.0	3.3	1.5	0.5	0.1	133.71	4.51	631.15	15.99	2.04	1.94	32.70	0.78	10.90
PPR1	62.8	17.4	6.4	0.1	2.2	5.6	3.2	1.5	0.5	0.1	147.21	5.48	751.68	7.80	2.50	1.65	28.82	21.68	9.61
PPR2	63.4	16.5	6.6	0.1	2.3	5.8	3.1	1.6	0.5	0.1	150.54	5.14	828.78	6.92	2.42	1.28	32.65	12.75	10.88
PPR3	63.3	16.6	6.4	0.1	2.2	5.9	3.2	1.6	0.5	0.1	154.77	5.44	831.28	10.30	2.58	1.98	30.25	31.58	10.08

Table S2 : major and volatile element composition in melt inclusions and host minerals

sample		SiO2 (wt%)	TiO2 (wt%)	Al2O3 (wt%)	FeO (wt%)	MnO (wt%)	MgO (wt%)	CaO (wt%)	Na2O (wt%)	K2O (wt%)	P2O5 (wt%)	Total (%)	cristalisation (%)	T (°C)	P (MPa)	X H2O (%)	H2O (wt%)	CO2 (ppm)	F (ppm)	Cl (ppm)	Br (ppm)	S (ppm)	
mean standard deviation (wt%)		0.62	0.07	0.11	0.68	0.07	0.19	0.14	0.10	0.13	0.03						125 ppm	43 ppm	100 ppm	67 ppm	0.2 ppm	1 ppm	
mean detection limit (wt%)		0.08	0.05	0.04	0.18	0.06	0.03	0.05	0.06	0.08	0.03						50 ppm	2 ppm	170 ppm	34 ppm	0.1 ppm	1 ppm	
Goodwill																							
OPX	l7c22	mi	78.24	0.09	11.88	2.17	0.12	0.28	1.63	3.41	2.17	0.00	100	0.16	919	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	l7c22	host	53.93	0.06	0.47	25.71	1.00	17.85	0.95	0.00	0.00	100											
	l7c27	mi	77.53	0.14	11.56	2.75	0.13	0.36	1.54	3.56	2.37	0.06	100	1.02	942	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	l7c27	host	53.51	0.06	0.58	25.75	1.09	17.95	1.00	0.00	0.00	100											
	l7c28-mi1	mi	78.24	0.14	11.42	2.43	0.06	0.29	1.58	3.26	2.51	0.06	100	0.15	920	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	l7c28-mi1	host	53.18	0.06	0.54	26.97	1.13	17.21	0.86	0.00	0.00	100											
	l7c6-mi2	mi	77.75	0.12	12.18	2.20	0.00	0.29	1.74	3.25	2.37	0.06	100	0.28	898	32	0.91	1.98	71	530	2951	n.d.	43
	l7c6-mi2	host	53.56	0.09	0.53	25.79	1.00	18.06	0.95	0.00	0.00	100											
	l7c8-mi2	mi	77.87	0.14	12.00	2.23	0.00	0.29	1.38	3.40	2.62	0.03	100	0.31	897	31	0.91	1.94	73	505	3019	7.45	24
	l7c8-mi2	host	52.97	0.13	0.52	26.13	1.25	18.11	0.87	0.00	0.00	100											
	l8c5-mi2	mi	79.26	0.08	11.09	2.16	0.00	0.24	1.26	3.06	2.69	0.09	100	0.02	893	35	0.83	1.99	103	462	2849	7.95	25
	l8c5-mi2	host	53.59	0.13	0.58	27.06	1.32	16.42	0.87	0.00	0.00	100											
	l9c8	mi	78.10	0.09	11.99	2.15	0.00	0.25	1.64	3.55	2.18	0.00	100	0.00	881	40	0.85	2.18	95	523	2736	6.37	37
	l9c8	host	52.14	0.14	1.21	27.47	1.06	17.20	0.76	0.00	0.00	100											
	l7c8mi1	mi	76.43	0.17	12.89	2.73	0.07	0.38	1.62	2.80	2.89	0.05	100	1.08	919	69	0.58	2.15	398	525	3161	n.d.	32
	l7c8mi1	host	51.66	0.07	0.47	26.52	1.16	19.15	0.94	0.00	0.00	100											
	l7c8mi2	mi	76.49	0.14	12.27	2.18	0.07	0.30	1.78	3.72	3.05	0.00	100	0.28	919	n.d.	n.d.	n.d.	n.d.	320	2554	n.d.	16
	l7c8mi2	host	51.40	0.16	0.52	27.05	1.01	18.87	0.98	0.00	0.00	100											
	l9c11	mi	76.34	0.20	12.35	2.65	0.09	0.35	1.95	3.47	2.59	0.00	100	0.58	905	39	0.79	1.99	115	513	2727	n.d.	38
	l9c11	host	52.01	0.15	0.49	26.89	1.05	18.34	1.07	0.00	0.00	100											
	L7C6-MI1	mi	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	2.00	70	545	3075	7.15	45	
MGT	l4c11mi1	mi	75.64	0.52	12.72	2.22	0.11	0.29	1.71	3.08	3.68	0.03	100	n.d.	n.d.	74	0.11	0.83	488	356	2880	n.d.	n.d.
	l4c11mi1	host	0.00	46.70	0.00	50.47	0.79	1.92	0.00	0.00	0.00	100											
	l4c11mi2	mi	74.57	1.02	12.42	3.22	0.00	0.33	1.79	3.38	3.25	0.00	100	n.d.	n.d.	30	0.81	1.71	78	180	2006	n.d.	45
	l4c11mi2	host	0.00	46.89	0.00	50.59	0.58	1.91	0.00	0.00	0.00	100											
	l4c12mi2	mi	76.09	0.29	13.15	2.22	0.00	0.19	1.85	3.64	2.55	0.00	100	n.d.	n.d.	51	0.80	2.35	135	415	2379	n.d.	44
	l4c12mi2	host	0.00	10.30	2.01	86.00	0.44	1.11	0.00	0.07	0.00	100											
PLAG	l1c1	mi	73.92	0.17	14.77	1.64	0.00	0.25	3.41	3.28	2.51	0.04	100	5.77	989	93	0.43	2.09	599	n.d.	1792	n.d.	31
	l1c1	host	51.38	0.00	30.93	0.40	0.00	0.00	13.58	3.50	0.13	0.00	100										
	l2c5	mi	76.12	0.17	13.08	1.67	0.00	0.28	2.07	3.60	3.00	0.00	100	1.91	922	115	0.40	2.25	737	235	2875	n.d.	33
	l2c5	host	55.27	0.00	28.23	0.35	0.00	0.00	10.82	5.08	0.20	0.00	100										
	l3c4	mi	76.37	0.16	13.38	1.36	0.00	0.22	2.06	3.63	2.77	0.07	100	3.34	925	164	0.30	2.22	1126	395	2243	n.d.	30
	l3c4	host	55.02	0.00	28.65	0.33	0.00	0.00	10.74	5.09	0.14	0.00	100										
	l3c4mi3	mi	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	10.75	n.d.
	l3c7	mi	75.23	0.14	13.67	1.80	0.08	0.26	2.37	3.89	2.55	0.09	100	5.88	958	152	0.53	2.38	1052	349	2430	n.d.	37
	l3c7	host	54.37	0.00	29.06	0.35	0.00	0.00	11.08	4.85	0.20	0.00	100										
	l4c1mi1	mi	77.12	0.21	12.49	1.44	0.11	0.24	1.91	3.71	2.77	0.03	100	0.40	915	112	0.35	2.04	750	248	2142	6.96	26
	l4c1mi1	host	56.47	0.00	27.62	0.44	0.00	0.04	9.79	5.15	0.34	0.10	100										
	l4c1mi2	mi	77.65	0.15	12.48	1.36	0.00	0.22	1.75	3.47	2.83	0.04	100	0.00	915	41	0.49	1.51	243	348	1926	n.d.	16
	l4c1mi2	host	56.57	0.00	27.58	0.27	0.00	0.00	9.53	5.78	0.21	0.03	100										
	l4c2	mi	75.31	0.21	13.80	1.61	0.00	0.26	2.37	3.64	2.77	0.03	100	5.79	946	268	0.19	2.12	1742	371	2586	11.27	34
	l4c2	host	54.09	0.00	29.19	0.29	0.00	0.00	11.47	4.69	0.19	0.00	100										
	l4c3mi2	mi	75.90	0.19	13.11	1.75	0.07	0.25	2.19	3.76	2.77	0.00	100	2.72	933	231	0.21	2.09	1515	319	2670	18.21	31
	l4c3mi2	host	54.44	0.00	28.69	0.37	0.00	0.00	11.11	5.14	0.23	0.00	100										
CPX	l2c14	mi	76.58	0.22	12.02	2.11	0.00	0.44	2.19	3.45	2.93	0.00	100	1.60	872	83	0.54	2.38	467	372	2486	n.d.	34
	l2c14	host	52.54	0.13	0.86	12.31	0.50	12.68	20.69	0.27	0.00	100											
	l2c17	mi	76.74	0.25	12.58	2.11	0.12	0.42	1.97	3.03	2.79	0.00	100	1.50	855	n.d.	n.d.	2.63	n.d.	331	2162	n.d.	67
	l2c17	host	52.86	0.14	0.92	12.28	0.53	12.38	20.58	0.23	0.00	100											
	l2c6	mi	75.03	0.27	13.12	2.38	0.07	0.51	2.50	3.50	2.55	0.07	100	2.20	899	n.d.	n.d.	n.d.	n.d.	253	2256	n.d.	n.d.
	l2c6	host	52.98	0.10	1.08	11.84	0.54	12.51	20.69	0.26	0.00	100											
	l2c7	mi	75.37	0.29	12.83	2.27	0.00	0.52	2.38	3.71	2.57	0.00	100	2.30	881	51	0.85	2.46	101	490	2570	n.d.	36
	l2c7	host	53.01	0.27	1.39	11.24	0.54	12.85	20.43	0.27	0.00	100											
	l2c8mi1	mi	75.59	0.27	12.94	2.07	0.00	0.45	2.29	3.42	2.83	0.11	100	1.80	900	n.d.	n.d.	n.d.	n.d.	479	2568	n.d.	n.d.
	l2c8mi1	host	52.80	0.30	1.50	11.60	0.46	12.79	20.21	0.27	0.00	100											
	l2c8mi2	mi	75.92	0.27	12.65	2.25	0.00	0.49	2.17	3.48	2.71	0.05	100	2.10	899	n.d.	n.d.	n.d.	n.d.	395	2233	n.d.	n.d.
	l2c8mi2	host	52.97	0.28	1.25	11.62	0.44	12.81	20.36	0.27	0.00												

sample			SiO2	TiO2	Al2O3	FeO	MnO	MgO	CaO	Na2O	K2O	P2O5	Total	cristalisation	T	P	X H2O	H2O	CO2	F	Cl	Br	S
			(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(%)	(%)	(°C)	(MPa)	(%)	(wt%)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
mean standard deviation (wt%)			0.62	0.07	0.11	0.68	0.07	0.19	0.14	0.10	0.13	0.03						125 ppm	43 ppm	100 ppm	67 ppm	0.2 ppm	1 ppm
mean detection limit (wt%)			0.08	0.05	0.04	0.18	0.06	0.03	0.05	0.06	0.08	0.03						50 ppm	2 ppm	170 ppm	34 ppm	0.1 ppm	1 ppm
MGT	I5c13	mi	75.98	0.37	12.63	2.84	0.08	0.20	1.79	3.51	2.61	0.00	100	n.d.	n.d.	239	0.25	2.36	1719	320	2396	n.d.	44
	I5c13	host	0.00	10.94	1.99	85.37	0.48	1.12	0.00	0.00	0.00	0.03	100										
	I6c16	mi	76.00	0.49	12.16	3.29	0.00	0.15	1.59	3.26	3.01	0.00	100	n.d.	n.d.	71	0.33	1.53	513	n.d.	1853	n.d.	n.d.
	I6c16	host	0.13	11.04	1.79	85.50	0.53	0.93	0.00	0.00	0.00	0.00	100										
	I6c21	mi	76.29	0.27	12.57	2.70	0.00	0.19	1.66	3.34	2.91	0.00	100	n.d.	n.d.	38	0.84	2.04	86	382	3101	n.d.	32
	I6c21	host	0.00	11.36	1.76	85.44	0.49	0.91	0.00	0.00	0.00	0.00	100										
	I6c26	mi	76.53	0.35	12.36	2.37	0.00	0.20	1.76	3.21	3.12	0.03	100	n.d.	n.d.	n.d.	n.d.	2.44	n.d.	422	2606	n.d.	53
	I6c26	host	0.11	11.12	2.00	85.20	0.41	1.06	0.00	0.00	0.00	0.04	100										
	I7c32	mi	76.15	0.37	12.40	2.55	0.08	0.22	1.67	3.80	2.69	0.07	100	n.d.	n.d.	52	0.80	2.38	141	351	2706	n.d.	35
	I7c32	host	0.00	11.13	1.91	85.45	0.46	0.99	0.00	0.00	0.00	0.00	100										
	I7c35	mi	75.59	0.34	12.48	2.43	0.00	0.23	2.26	3.66	2.63	0.35	100	n.d.	n.d.	25	0.91	1.67	28	291	2496	n.d.	n.d.
	I7c35	host	0.00	11.02	1.83	85.31	0.48	1.19	0.00	0.00	0.00	0.00	100										
	I5c1	mi	75.82	0.91	12.39	2.42	0.10	0.33	2.19	4.34	1.44	0.07	100	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	338	2265	n.d.	n.d.
	I5c1	host	0.00	46.67	0.00	50.77	0.71	1.74	0.00	0.00	0.05	0.05	100										
	I6c5mi1	mi	76.14	0.32	12.64	2.34	0.00	0.21	1.84	3.64	2.83	0.00	100	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	353	2490	n.d.	n.d.
	I6c5mi1	host	0.00	10.91	1.79	85.74	0.44	1.04	0.00	0.00	0.00	0.04	100										
	I6c5mi2	mi	74.96	0.38	12.43	2.33	0.14	0.19	2.46	3.84	2.81	0.45	100	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	335	2915	n.d.	n.d.
	I6c5mi2	host	0.10	10.94	1.97	85.31	0.52	1.07	0.00	0.00	0.00	0.00	100										
	I7c9	mi	76.31	0.38	12.92	1.99	0.09	0.27	1.79	3.65	2.56	0.04	100	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	393	2474	n.d.	n.d.
	I7c9	host	0.00	47.11	0.00	50.19	0.66	1.82	0.06	0.09	0.00	0.00	100										
PLAG	I5c1	mi	76.74	0.18	12.89	1.40	0.06	0.20	1.80	3.73	2.99	0.00	100	0.00	905	65	0.58	2.17	338	437	2345	15.48	25
	I5c1	host	56.72	0.00	27.31	0.29	0.00	0.00	9.37	5.95	0.24	0.00	100										
	I5c16	mi	77.09	0.12	12.55	1.58	0.09	0.24	1.65	3.71	2.95	0.00	100	0.00	896	56	0.64	2.14	250	259	1926	n.d.	32
	I5c16	host	57.63	0.00	26.84	0.26	0.00	0.03	8.86	6.07	0.24	0.00	100										
	I6C3	mi	77.90	0.15	12.83	1.44	0.00	0.23	1.78	2.55	3.06	0.00	100	0.00	886	99	0.62	2.84	557	338	2376	19.56	30
	I6C3	host	55.92	0.00	27.96	0.25	0.00	0.00	10.41	5.24	0.21	0.00	100										
	I7C13	mi	76.55	0.17	13.20	1.61	0.00	0.21	2.04	3.56	2.60	0.00	100	2.83	929	602	0.10	2.02	3871	462	2432	n.d.	53
	I7C13	host	55.34	0.00	28.33	0.41	0.00	0.00	10.71	5.03	0.17	0.00	100										
	I7C22	mi	75.95	0.18	13.49	1.39	0.09	0.26	2.24	3.69	2.71	0.00	100	6.05	932	570	0.12	2.29	3635	354	2457	n.d.	38
	I7C22	host	54.75	0.10	28.64	0.29	0.00	0.00	11.12	4.88	0.18	0.00	100										
	I7C24	mi	76.14	0.28	13.23	1.54	0.00	0.24	2.23	3.54	2.75	0.06	100	5.10	921	477	0.17	2.61	3251	333	2144	n.d.	43
	I7C24	host	54.23	0.00	29.20	0.30	0.00	0.00	11.31	4.81	0.12	0.00	100										
CPX	I5c11	mi	76.62	0.14	12.19	2.11	0.11	0.49	2.19	3.32	2.82	0.00	100	2.10	860	79	0.68	2.74	350	312	2581	n.d.	32
	I5c11	host	52.82	0.23	0.86	11.71	0.51	12.75	20.87	0.24	0.00	0.00	100										
	I5c12	mi	75.53	0.26	12.89	2.44	0.00	0.56	2.23	2.72	3.28	0.04	100	2.80	876	428	0.26	3.25	3286	533	2635	n.d.	45
	I5c12	host	52.70	0.25	1.35	11.61	0.46	12.91	20.42	0.27	0.00	0.00	100										
	I5c14mi1	mi	73.89	0.24	13.83	2.22	0.00	0.52	2.64	3.79	2.74	0.08	100	2.20	875	72	0.78	2.83	204	430	2548	n.d.	30
	I5c14mi1	host	52.53	0.26	1.37	11.46	0.52	12.80	20.81	0.25	0.00	0.00	100										
	I5c14mi2	mi	75.61	0.22	12.74	2.25	0.00	0.53	2.29	3.47	2.78	0.05	100	2.40	870	104	0.58	2.78	566	240	2525	n.d.	44
	I5c14mi2	host	52.53	0.26	1.37	11.46	0.52	12.80	20.81	0.25	0.00	0.00	100										
	I5c17mi1	mi	76.03	0.18	12.63	2.15	0.00	0.49	2.01	3.68	2.72	0.09	100	2.10	870	63	0.76	2.61	206	311	2530	n.d.	24
	I5c17mi1	host	52.50	0.30	1.33	11.83	0.39	12.77	20.59	0.30	0.00	0.00	100										
	I5c17mi2	mi	75.83	0.20	13.16	1.90	0.09	0.46	2.02	3.59	2.64	0.12	100	1.60	863	71	0.67	2.51	301	372	2398	n.d.	25
	I5c17mi2	host	52.70	0.27	1.37	11.39	0.48	13.00	20.54	0.24	0.00	0.00	100										
	I5c2	mi	75.66	0.19	13.12	1.99	0.00	0.46	2.38	3.05	3.05	0.06	100	1.70	n.d.	n.d.	n.d.	n.d.	n.d.	351	1991	n.d.	n.d.
	I5c2	host	52.40	0.21	1.36	11.60	0.52	12.81	20.85	0.25	0.00	0.00	100										
	I5c7	mi	75.63	0.16	13.10	2.01	0.09	0.48	2.35	3.47	2.67	0.05	100	2.20	n.d.	n.d.	n.d.	n.d.	n.d.	298	2214	n.d.	n.d.
	I5c7	host	52.92	0.21	1.09	11.38	0.47	12.95	20.74	0.22	0.00	0.00	100										
	I6c17	mi	75.55	0.33	12.69	2.12	0.09	0.49	2.14	3.63	2.92	0.06	100	2.00	n.d.	n.d.	n.d.	n.d.	n.d.	301	2448	n.d.	n.d.
	I6c17	host	52.72	0.37	1.53	11.72	0.26	12.92	20.24	0.24	0.00	0.00	100										
	I6c25	mi	75.69	0.24	12.42	2.22	0.00	0.53	2.15	3.54	3.14	0.00	100	2.80	n.d.	n.d.	n.d.	n.d.	n.d.	336	2334	n.d.	n.d.
	I6c25	host	53.06	0.25	1.17	11.43	0.54	12.84	20.39	0.29	0.00	0.00	100										
PPR2																							
OPX	I2c16	mi	78.31	0.12	11.68	2.39	0.08	0.30	1.58	3.35	2.16	0.03	100	0.25	905	33	0.81	1.89	125	594	2800	n.d.	33
	I2c16	host	53.81	0.00	0.49	26.11	1.13	17.49	0.91	0.00	0.00	0.00	100										
	I2c17	mi	78.59	0.00	11.67	2.35	0.00	0.27	1.37	3.15	2.54	0.00	100	0.52	898	29	0.88	1.82	80	492			

sample			SiO2	TiO2	Al2O3	FeO	MnO	MgO	CaO	Na2O	K2O	P2O5	Total	cristalisation	T	P	X H2O	H2O	CO2	F	Cl	Br	S
			(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(%)	(%)	(°C)	(MPa)	(%)	(wt%)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
mean standard deviation (wt%)			0.62	0.07	0.11	0.68	0.07	0.19	0.14	0.10	0.13	0.03						125 ppm	43 ppm	100 ppm	67 ppm	0.2 ppm	1 ppm
mean detection limit (wt%)			0.08	0.05	0.04	0.18	0.06	0.03	0.05	0.06	0.08	0.03						50 ppm	2 ppm	170 ppm	34 ppm	0.1 ppm	1 ppm
	l8c30	mi	76.63	0.25	12.58	1.92	0.11	0.41	2.10	3.33	2.68	0.00	100	1.50	862	84	0.74	3.01	312	384	2434	n.d.	38
	l8c30	host	52.74	0.29	1.24	11.84	0.46	12.56	20.50	0.27	0.00	0.07	100										
	l9c22mi1	mi	76.58	0.19	12.14	2.20	0.00	0.48	2.08	3.58	2.69	0.03	100	2.00	867	57	0.82	2.60	146	200	2456	n.d.	28
	l9c22mi1	host	52.96	0.24	1.12	11.77	0.40	12.87	20.39	0.26	0.00	0.00	100										
	l9c22mi2	mi	76.34	0.24	12.35	2.34	0.00	0.49	2.12	3.52	2.53	0.03	100	2.20	858	230	0.30	2.64	1677	339	2445	n.d.	36
	l9c22mi2	host	53.00	0.21	1.07	12.16	0.60	12.63	20.14	0.20	0.00	0.00	100										
	l9c25	mi	76.00	0.21	12.50	1.99	0.09	0.43	1.97	3.26	3.49	0.05	100	1.90	865	243	0.37	3.12	1755	431	2465	n.d.	38
	l9c25	host	52.13	0.27	1.38	11.65	0.56	12.66	20.96	0.31	0.00	0.08	100										
	l9c6	mi	76.17	0.17	12.79	2.06	0.00	0.45	2.03	3.49	2.81	0.00	100	1.80	856	55	0.80	2.50	143	376	2526	n.d.	38
	l9c6	host	53.26	0.17	1.07	11.50	0.52	12.67	20.58	0.22	0.00	0.00	100										
PPR3																							
OPX	l2c13-mi1	mi	78.26	0.15	11.66	2.15	0.07	0.28	1.57	3.44	2.38	0.04	100	0.35	880	55	0.85	2.63	115	490	3125	7.21	38
	l2c13-mi1	host	52.62	0.10	0.49	26.45	1.13	18.23	0.93	0.00	0.00	0.00	100										
	l2c13-mi2	mi	78.45	0.18	11.52	2.23	0.11	0.28	1.60	3.35	2.28	0.00	100	0.37	915	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	l2c13-mi2	host	52.94	0.11	0.54	26.49	1.02	17.88	0.97	0.00	0.00	0.00	100										
	l2c17	mi	78.24	0.08	11.78	2.03	0.14	0.25	1.54	3.32	2.54	0.08	100	0.00	883	45	0.93	2.47	71	487	3157	8.41	29
	l2c17	host	53.25	0.00	0.42	26.85	1.13	17.34	0.90	0.00	0.00	0.06	100										
	l2c23	mi	78.06	0.07	12.04	2.11	0.00	0.28	1.62	3.45	2.28	0.04	100	0.32	890	n.d.	n.d.	2.11	n.d.	401	2722	n.d.	36
	l2c23	host	53.09	0.05	0.55	26.09	1.04	18.21	0.90	0.00	0.00	0.00	100										
	l3c6	mi	78.12	0.12	11.75	2.23	0.00	0.28	1.53	3.54	2.42	0.00	100	0.27	912	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	l3c6	host	53.12	0.07	0.49	26.50	1.08	17.68	0.98	0.00	0.00	0.00	100										
	l4c13	mi	78.48	0.00	11.74	2.28	0.06	0.27	1.47	3.30	2.31	0.04	100	0.28	913	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	l4c13	host	53.01	0.08	0.62	26.97	1.07	17.37	0.81	0.00	0.00	0.00	100										
	l4c16	mi	77.56	0.10	12.07	2.28	0.09	0.26	1.44	3.21	2.97	0.00	100	0.26	912	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	l4c16	host	52.71	0.13	0.48	27.61	1.30	16.77	0.95	0.00	0.00	0.00	100										
	l5c17	mi	77.58	0.16	12.36	2.13	0.10	0.27	1.65	3.40	2.32	0.00	100	0.29	911	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	l5c17	host	53.02	0.08	0.62	26.38	1.12	17.65	1.00	0.00	0.00	0.06	100										
	l5c34	mi	78.06	0.12	11.72	2.44	0.07	0.29	1.58	3.28	2.35	0.10	100	0.71	921	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	l5c34	host	53.27	0.13	0.64	26.90	0.99	17.07	0.96	0.00	0.00	0.00	100										
	l3c22mi2	mi	74.57	0.15	13.74	2.75	0.12	0.36	1.88	3.57	2.87	0.05	100	0.85	891	49	0.90	2.49	68	441	3794	n.d.	38
	l3c22mi2	host	50.73	0.14	0.52	28.03	1.09	18.39	1.10	0.00	0.00	0.00	100										
	l3c23	mi	71.17	0.07	16.30	2.07	0.13	0.27	4.10	3.48	2.41	0.00	100	0.65	880	n.d.	n.d.	n.d.	n.d.	381	1226	n.d.	21
	l3c23	host	50.61	0.11	0.72	28.59	1.12	17.61	1.16	0.00	0.00	0.00	100										
	l3c22	mi	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	2.49	68	454	3794	9.17	35
MGT	l12c11	mi	76.22	0.23	12.39	2.79	0.00	0.20	1.55	3.54	3.00	0.07	100	n.d.	n.d.	40	0.92	2.24	39	239	2568	n.d.	29
	l12c11	host	0.08	11.05	1.75	85.72	0.38	0.98	0.00	0.00	0.00	0.00	100										
	l12c14	mi	75.73	0.92	12.49	2.18	0.08	0.27	1.73	3.72	2.77	0.10	100	n.d.	n.d.	32	0.84	1.84	71	335	2459	n.d.	42
	l12c14	host	0.00	47.60	0.00	49.88	0.63	1.81	0.00	0.00	0.00	0.00	100										
	l12c2	mi	76.39	0.32	12.58	2.22	0.00	0.19	1.78	3.50	2.96	0.04	100	n.d.	n.d.	39	0.84	2.08	86	n.d.	1754	n.d.	35
	l12c2	host	0.00	10.92	1.92	85.53	0.48	1.03	0.00	0.00	0.00	0.00	100										
	l12c6	mi	76.20	0.39	12.48	2.42	0.00	0.28	1.93	3.74	2.51	0.04	100	n.d.	n.d.	58	0.93	2.86	56	354	2530	n.d.	43
	l12c6	host	0.00	10.93	1.84	85.64	0.46	1.05	0.00	0.00	0.00	0.05	100										
	l11c22mi2	mi	77.54	0.27	12.67	2.57	0.07	0.20	1.72	2.14	2.80	0.00	100	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	365	2619	n.d.	n.d.
	l11c22mi2	host	0.00	11.10	1.84	85.35	0.42	1.08	0.00	0.00	0.00	0.09	100										
	l11c22mi1	mi	76.33	0.36	12.42	2.75	0.00	0.22	1.64	3.46	2.76	0.00	100	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	237	2601	n.d.	n.d.
	l11c22mi1	host	0.00	10.78	1.79	86.03	0.40	0.92	0.00	0.00	0.00	0.00	100										
	l13c23	mi	77.13	0.48	12.18	2.99	0.00	0.21	1.71	2.54	2.70	0.04	100	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	334	2532	n.d.	n.d.
	l13c23	host	0.00	10.89	1.86	85.52	0.54	0.97	0.00	0.00	0.00	0.07	100										
	l13c9	mi	76.09	0.32	12.62	2.37	0.00	0.23	1.76	3.93	2.60	0.06	100	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	322	2412	n.d.	n.d.
	l13c9	host	0.10	11.21	1.81	85.16	0.45	1.12	0.00	0.00	0.00	0.06	100										
PLAG	l11c14	mi	76.17	0.19	12.85	1.83	0.07	0.28	2.15	3.37	3.09	0.03	100	2.73	920	59	0.72	2.37	231	398	2445	n.d.	40
	l11c14	host	54.42	0.00	28.93	0.28	0.00	0.00	11.39	4.81	0.16	0.00	100										
	l11c15mi2	mi	75.55	0.19	13.90	1.03	0.00	0.20	2.40	3.84	2.86	0.03	100	7.67	939	59	0.71	2.35	211	317	2336	n.d.	22
	l11c15mi2	host	54.51	0.00	28.90	0.24	0.00	0.00	11.29	4.79	0.20	0.00	100										
	l13c14mi2	mi	76.96	0.34	12.35	1.42	0.09	0.23	1.88	3.19	3.43	0.10	100	0.00	893	68	0.76	2.70	229	447	2641	n.d.	33
	l13c14mi2	host	54.73	0.00	28.73	0.32	0.00	0.00	10.89	5.06	0.20	0.00	100										

Table S3 : trace element composition in melt inclusions

	sample	Li6 (ppm)	Li7 (ppm)	Al27 (ppm)	Ca43 (ppm)	Ca44 (ppm)	Co59 (ppm)	Ni60 (ppm)	Rb85 (ppm)	Sr88 (ppm)	Y89 (ppm)	Zr90 (ppm)	Nb93 (ppm)	Ba137 (ppm)	La139 (ppm)	Ce140 (ppm)	Pr141 (ppm)	Nd146 (ppm)	Sm147 (ppm)	Eu153 (ppm)	Gd157 (ppm)	Tb159 (ppm)	Dy163 (ppm)	Ho165 (ppm)	Er166 (ppm)	Tm169 (ppm)	Yb172 (ppm)	Lu175 (ppm)	Th232 (ppm)	U238 (ppm)		
Goodwill	OPX	17c6-mi2	40	38	62334	14141	12436	0	0	78	99	20	137	3.6	398	13	28	3.2	12	3.2	0.6	2.8	0.5	3.3	0.7	2.0	0.4	2.5	0.4	6.4	2.1	
		17c8-mi2	37	32	54797	10115	9863	0	0	79	78	17	148	4.4	410	16	32	3.4	13	2.3	0.5	2.1	0.4	2.9	0.6	2.0	0.3	2.1	0.3	9.8	3.7	
		18c5-mi2	35	35	54521	9817	9005	0	0	92	76	12	103	3.3	444	13	27	2.7	10	1.9	0.4	1.5	0.3	1.7	0.4	1.2	0.2	1.6	0.3	8.4	2.7	
		19c8	42	41	58523	12273	11721	0	0	69	84	17	124	3.6	361	13	28	3.2	13	3.0	0.5	2.3	0.4	2.6	0.6	1.9	0.3	2.3	0.4	6.4	2.0	
		19c11	43	39	62224	13751	12078	0	0	82	92	20	141	4.3	408	15	32	3.6	15	3.0	0.6	3.2	0.4	3.8	0.7	1.9	0.4	2.1	0.4	7.1	2.5	
		MGT	14c11mi1	46	34	67321	23577	14913	0	0	131	94	25	189	4.6	558	16	33	3.2	16	3.7	0.8	0.0	0.9	5.0	1.1	3.6	0.3	2.3	0.5	7.9	2.6
			14c12mi2	59	46	69596	18763	16335	0	0	89	121	27	204	4.1	427	16	34	4.4	17	5.0	1.2	2.6	0.7	5.0	1.0	3.4	0.5	2.7	0.6	8.5	2.6
		PLAG	12c5	45	42	71297	17877	14794	0	0	94	106	17	92	3.6	489	17	35	3.5	12	2.4	0.4	2.4	0.3	2.5	0.6	1.9	0.4	2.2	0.3	9.0	2.9
			13c7	57	56	95962	19674	16938	0	0	141	129	21	151	5.3	688	22	45	4.4	16	2.7	0.6	3.3	0.5	4.4	0.6	2.5	0.4	3.2	0.5	10.2	3.4
		CPX	12c14	53	50	88288	20083	15652	0	0	131	117	26	202	5.7	633	22	46	4.9	19	4.0	0.6	4.0	0.6	3.6	0.9	2.6	0.5	3.0	0.8	11.0	3.7
		12c7	52	59	87477	18853	17010	0	0	109	137	30	181	5.3	543	22	44	5.1	21	5.6	0.9	4.5	0.7	4.6	1.1	3.5	0.4	3.4	0.5	9.2	3.1	
		12c9mi1	51	55	80403	19111	17939	0	0	83	133	29	160	5.3	435	20	43	4.8	20	4.6	1.0	4.3	0.7	4.9	1.0	3.1	0.5	4.2	0.6	7.7	2.4	
		12c9mi2	47	36	62432	15539	14937	0	0	75	102	25	153	4.2	398	17	36	4.0	16	4.0	0.8	3.2	0.5	3.9	0.9	2.9	0.5	3.4	0.5	7.1	2.3	
		14c29mi1	55	50	86089	18416	16224	0	0	119	121	34	206	5.8	603	21	46	5.2	21	5.0	0.9	5.1	0.7	5.0	1.1	3.1	0.5	4.4	0.7	10.1	3.0	
		14c29mi2	55	57	82766	16765	15938	0	0	124	117	29	192	4.9	538	20	42	4.7	18	4.6	0.7	4.8	0.6	4.9	0.9	3.9	0.5	3.4	0.7	8.7	3.1	
		14c29mi3	32	27	85254	19396	16081	0	0	120	125	31	195	5.5	545	20	42	4.6	21	4.7	1.0	4.5	0.6	5.5	1.1	3.6	0.5	4.0	0.6	9.5	2.9	
PPR1	OPX	16c15mi1	38	37	62200	12864	11936	0	0	91	103	17	94	3.5	465	15	30	3.4	13	2.5	0.4	2.6	0.3	2.9	0.5	1.6	0.3	2.2	0.4	8.5	2.7	
		16c15mi2	53	42	65111	16854	14580	0	0	73	86	19	135	5.6	400	17	37	5.0	21	4.7	1.0	3.3	0.6	2.8	0.7	1.6	0.3	2.7	0.4	6.4	2.4	
		16c15mi3	33	38	63091	10486	11078	0	0	107	81	14	86	3.4	483	15	30	3.3	12	3.3	0.6	1.7	0.3	2.3	0.4	1.8	0.4	2.3	0.4	9.1	3.5	
		16c29	40	38	66221	15088	12364	0	0	110	92	14	130	4.1	527	16	30	3.2	10	2.3	0.5	2.0	0.3	2.3	0.6	1.8	0.3	1.9	0.3	9.4	3.3	
		17c26	46	45	72715	16587	15438	0	0	80	120	22	140	4.6	422	15	33	3.8	16	3.5	0.7	3.4	0.4	2.9	0.8	2.9	0.4	2.6	0.3	6.6	2.2	
		18c2mi1	40	41	64321	12986	12078	0	0	99	84	15	129	3.9	502	18	35	3.5	13	2.3	0.5	2.1	0.3	2.4	0.5	1.6	0.3	2.1	0.3	9.3	2.9	
		19c29	44	44	70891	13442	12507	0	0	102	109	20	139	3.8	501	18	36	3.8	15	3.3	0.6	3.0	0.5	3.6	0.7	2.4	0.4	2.3	0.4	9.0	2.8	
	MGT	15c13	62	32	66844	23038	14820	0	0	93	106	29	199	4.6	444	17	36	4.2	16	5.3	0.7	3.5	0.7	6.0	0.9	2.5	0.5	4.1	0.0	9.4	2.4	
		16c21	64	43	66527	21677	14054	0	0	118	102	30	227	6.0	530	21	39	4.4	18	3.0	0.6	4.5	0.7	5.4	1.2	0.0	0.5	3.6	0.7	10.3	3.0	
		16c26	0	20	65415	23994	15690	0	0	96	113	28	220	5.0	483	18	38	4.5	18	2.5	1.0	4.8	0.7	4.4	1.1	3.0	0.7	3.5	0.6	7.9	2.7	
		17c32	54	35	65627	20699	14523	0	0	91	97	24	159	4.0	446	16	32	3.9	17	4.9	1.3	4.5	0.6	4.9	0.8	2.5	0.4	3.0	0.9	8.2	2.3	
	PLAG	15c16	43	38	69907	14226	11793	0	0	87	96	13	85	3.3	442	15	30	3.0	11	2.4	0.5	2.9	0.3	2.1	0.4	1.9	0.2	1.3	0.4	7.2	2.5	
		16c3	23	21	70650	14461	12722	0	0	98	97	15	130	4.4	481	16	31	3.2	12	2.7	0.6	2.4	0.4	2.1	0.5	1.4	0.2	1.9	0.3	9.9	3.3	
		17c22	46	45	80721	17309	16009	0	0	117	116	20	136	4.7	597	21	42	4.0	15	3.4	0.8	4.4	0.4	2.3	0.8	2.2	0.4	3.5	0.1	10.2	3.6	
	CPX	15c11	56	56	84402	19126	15652	0	0	124	127	29	197	6.0	642	24	48	5.1	21	4.2	0.8	4.6	0.6	4.2	1.0	2.8	0.5	3.8	0.6	10.7	3.3	
		15c12	0	0	85982	16597	15938	5	4	134	111	26	203	5.8	597	18	37	4.0	16	4.0	0.8	4.1	0.6	4.4	1.0	3.4	0.5	4.0	0.5	9.1	3.0	
		15c14mi1	68	54	105803	20915	18868	84	25	108	148	36	186	6.1	526	23	47	5.9	24	5.4	0.9	4.1	0.7	6.7	0.8	4.4	0.6	5.8	0.5	8.9	2.3	
		15c17mi2	40	40	61521	15616	14437	0	0	75	94	20	124	3.6	403	15	31	3.4	13	3.1	0.6	2.9	0.5	3.7	0.7	2.4	0.4	2.3	0.4	6.3	1.8	
PPR2	OPX	12c17	36	35	55739	11113	9791	0	0	94	74	13	100	3.3	455	14	29	2.9	12	1.9	0.4	1.5	0.3	2.3	0.4	1.6	0.3	1.8	0.4	7.8	2.5	
		12c5	34	37	63290	10148	11006	0	0	88	92	22	149	4.7	467	16	33	3.9	15	3.4	0.8	2.2	0.4	3.2	0.8	2.5	0.4	2.6	0.5	7.5	2.4	
		12c6	36	34	54867	11785	10506	0	0	72	89	18	131	3.7	380	13	28	3.2	13	2.6	0.5	2.4	0.4	3.1	0.7	2.2	0.4	2.1	0.4	5.9	1.9	
		13c18-mi2	37	39	60154	14589	12436	0	0	76	91	21	146	3.8	402	14	30	3.4	14	3.2	0.7	3.3	0.6	3.2	0.8	2.5	0.3	2.5	0.5	6.7	2.2	
		13c8-mi2	35	35	57729	10796	10006	0	0	80	85	19	140	3.5	402	13	27	3.0	13	2.8	0.5	2.9	0.5	3.3	0.7	2.1	0.3	2.2	0.4	6.6	2.0	
		15c13	36	38	62088	12006	11793	0	0	82	96	21	152	4.5	412	15	31	3.5	14	3.1	0.6	3.3	0.5	3.5	0.7	2.4	0.4	2.7	0.4	7.9	2.4	
	MGT	110c18	53	35	67797	21958	13928	0	0	78	94	24	152	4.1	427	15	32	4.0	14	3.5	0.8	3.4	0.6	3.5	1.0	2.6	0.3	3.1	0.3	6.5	2.1	
		110c30mi1	50	31	65310	21717	18917	0	0	102	178	33	212	4.8	486	18	45	4.4	18													

Table S4 : major element raw composition in melt inclusions and host minerals

sample		SiO2 (wt%)	TiO2 (wt%)	Al2O3 (wt%)	FeO (wt%)	MnO (wt%)	MgO (wt%)	CaO (wt%)	Na2O (wt%)	K2O (wt%)	P2O5 (wt%)	Total (%)	
mean standard deviation (wt%)		0.62	0.07	0.11	0.68	0.07	0.19	0.14	0.10	0.13	0.03		
mean detection limit (wt%)		0.08	0.05	0.04	0.18	0.06	0.03	0.05	0.06	0.08	0.03		
Goodwill													
OPX	L7C22	mi	74.16	0.08	11.28	2.02	0.11	0.24	1.55	3.24	2.06	0.00	94.74
	L7C22	host	54.20	0.06	0.47	25.84	1.00	17.94	0.96	0.00	0.02	0.01	100.51
	L7C26MI2	mi	54.99	0.00	29.05	0.99	0.00	0.00	11.69	4.08	0.06	0.04	100.91
	L7C26MI2	host	28.35	0.17	2.22	10.50	0.49	5.90	23.60	0.24	0.23	23.73	95.44
	L7C27	mi	75.03	0.14	11.26	2.42	0.12	0.18	1.49	3.47	2.31	0.06	96.47
	L7C27	host	53.93	0.06	0.59	25.96	1.10	18.09	1.01	0.04	0.02	0.00	100.79
	L7C28MI1	mi	75.83	0.14	11.08	2.32	0.06	0.26	1.53	3.16	2.43	0.06	96.87
	L7C28MI1	host	53.87	0.06	0.55	27.32	1.14	17.43	0.87	0.03	0.01	0.01	101.29
	l7c6	mi	70.44	0.24	12.47	2.09	0.05	0.21	1.83	3.32	2.35	0.00	92.96
	l7c6h	host	51.16	0.09	0.53	25.94	0.96	18.89	1.08	-0.01	0.00	0.00	98.65
	L7C6MI2	mi	74.61	0.11	11.71	2.04	0.04	0.23	1.67	3.12	2.28	0.05	95.88
	L7C6MI2	host	53.85	0.09	0.53	25.93	1.01	18.16	0.96	0.00	0.02	0.00	100.54
	l7c8mi1	mi	65.11	0.18	9.39	9.28	0.35	5.11	1.24	2.28	1.77	0.00	94.67
	l7c8mi1h	host	51.44	0.10	0.65	26.10	1.08	18.61	0.98	0.00	0.01	0.00	98.93
	L7C8MI2	mi	75.69	0.14	11.69	2.09	0.03	0.23	1.34	3.31	2.55	0.03	97.10
	L7C8MI2	host	52.55	0.13	0.51	25.92	1.24	17.96	0.86	0.02	0.00	0.00	99.19
	l7c8mi2	mi	71.45	0.19	12.45	1.92	0.11	0.20	1.51	3.45	2.53	0.00	93.76
	l7c8mi2h	host	51.28	0.10	0.55	26.13	1.00	18.63	0.96	0.03	0.00	0.00	98.65
	L8C5MI2	mi	76.64	0.07	10.73	2.09	0.05	0.23	1.21	2.96	2.60	0.09	96.68
	L8C5MI2	host	54.13	0.13	0.59	27.33	1.34	16.58	0.88	0.00	0.04	0.00	101.01
	l9c11	mi	71.33	0.20	12.35	2.22	0.08	0.18	1.78	2.95	2.18	0.00	93.24
	l9c11h	host	51.26	0.12	0.69	26.39	1.03	18.32	0.99	0.02	-0.01	0.00	98.77
	L9C8	mi	74.53	0.08	11.43	2.09	0.05	0.26	1.56	3.38	2.08	0.02	95.50
	L9C8	host	52.58	0.14	1.22	27.69	1.07	17.35	0.77	0.00	0.01	0.00	100.83
MGT	l3c8	mi	50.34	4.32	9.54	34.22	0.20	0.43	1.13	2.96	1.61	0.07	104.81
	l3c8	host	0.09	10.34	1.91	82.16	0.42	1.17	0.01	0.02	0.01	-0.02	96.14
	l4c10	mi	48.25	1.56	27.62	14.30	-0.01	0.14	10.36	4.58	0.15	-0.02	106.95
	l4c10	host	0.03	10.43	1.96	82.54	0.44	1.19	-0.01	0.02	0.03	0.03	96.67
	l4c11mi1	mi	73.34	0.50	12.33	2.15	0.11	0.28	1.66	2.99	3.57	0.03	96.95
	l4c11mi1	host	0.04	46.82	-0.09	50.59	0.79	1.93	0.03	0.02	0.03	0.01	100.25
	l4c11mi2	mi	74.13	1.01	12.35	3.20	0.00	0.33	1.78	3.36	3.23	0.01	99.42
	l4c11mi2	host	-0.01	45.90	-0.12	49.53	0.57	1.87	-0.02	0.01	0.02	0.01	97.90
	l4c12mi1	mi	50.00	0.15	27.42	1.31	0.01	0.03	11.66	2.92	0.35	0.09	93.94
	l4c12mi1	host	0.09	9.97	1.94	81.55	0.52	1.06	0.02	0.05	-0.04	-0.02	95.19
	l4c12mi2	mi	74.71	0.29	12.91	2.18	0.01	0.18	1.82	3.57	2.50	0.00	98.18
	l4c12mi2	host	0.06	9.77	1.91	81.59	0.42	1.06	0.00	0.07	-0.01	0.00	94.87
	l4c3	mi	56.64	3.08	10.24	26.37	0.16	0.35	1.28	3.14	2.07	0.01	103.34
	l4c3	host	0.05	9.86	1.83	82.45	0.37	0.96	0.00	0.05	0.00	0.00	95.58
PLAG	l1c1	mi	72.80	0.18	13.39	1.66	0.05	0.25	2.73	3.16	2.57	0.04	96.82
	l1c1	host	52.45	-0.03	31.57	0.41	0.06	-0.01	13.86	3.57	0.13	0.03	102.07
	l2c5	mi	73.35	0.17	12.26	1.62	0.03	0.27	1.82	3.42	2.93	-0.01	95.85
	l2c5	host	56.94	-0.02	29.08	0.36	0.03	0.03	11.15	5.23	0.20	-0.01	103.02
	l3c4	mi	73.60	0.16	12.29	1.33	0.06	0.21	1.69	3.42	2.73	0.07	95.54
	l3c4	host	56.20	0.01	29.26	0.34	-0.01	0.02	10.97	5.20	0.14	-0.01	102.15
	l3c7	mi	73.13	0.14	12.21	1.81	0.08	0.26	1.78	3.67	2.57	0.09	95.74
	l3c7	host	55.83	0.04	29.84	0.36	0.03	0.02	11.38	4.98	0.20	-0.03	102.68
	l4c1mi1	mi	74.37	0.20	11.98	1.39	0.11	0.23	1.80	3.57	2.68	0.03	96.36
	l4c1mi1	host	57.96	0.02	28.35	0.45	0.02	0.04	10.05	5.29	0.35	0.10	102.64
	l4c1mi2	mi	75.56	0.15	12.14	1.32	0.04	0.22	1.70	3.38	2.76	0.04	97.31
	l4c1mi2	host	57.93	-0.04	28.25	0.28	0.00	0.02	9.76	5.92	0.21	0.03	102.40
	l4c2	mi	73.64	0.21	12.42	1.63	0.04	0.26	1.78	3.44	2.80	0.03	96.24
	l4c2	host	55.41	0.04	29.90	0.29	0.03	0.02	11.75	4.80	0.20	0.00	102.44
	l4c3mi1	mi	72.87	0.15	12.85	1.69	0.04	0.26	1.71	3.47	2.80	0.00	95.84
	l4c3mi1	host	53.29	-0.02	31.25	0.27	0.02	0.01	13.21	4.18	0.13	0.07	102.45
	l4c3mi2	mi	73.14	0.18	12.13	1.71	0.07	0.25	1.86	3.56	2.72	-0.01	95.63
	l4c3mi2	host	55.83	-0.03	29.42	0.38	0.02	0.00	11.39	5.28	0.23	-0.03	102.56
	l4c5	mi	72.50	0.21	12.29	1.39	0.01	0.28	1.85	3.54	2.97	0.05	95.09
	l4c5	host	54.69	-0.02	31.13	0.30	0.04	0.01	12.71	4.34	0.12	-0.06	103.35
CPX	l2c14	mi	73.53	0.22	11.66	1.86	0.04	0.23	1.81	3.34	2.84	-0.06	95.54
	l2c14	host	53.05	0.13	0.87	12.43	0.50	12.81	20.89	0.28	0.01	-0.05	100.97
	l2c17	mi	71.11	0.23	11.76	1.80	0.11	0.23	1.56	2.83	2.61	-0.01	92.23
	l2c17	host	53.36	0.14	0.93	12.40	0.54	12.50	20.78	0.23	0.04	0.04	100.94
	l2c6	mi	73.08	0.27	12.96	2.10	0.05	0.23	2.03	3.46	2.52	0.07	96.78
	l2c6	host	54.05	0.10	1.10	12.08	0.55	12.77	21.11	0.26	-0.02	0.00	102.02
	l2c7	mi	73.16	0.28	12.63	1.99	0.02	0.23	1.89	3.65	2.54	0.02	96.41
	l2c7	host	53.72	0.27	1.41	11.39	0.55	13.02	20.70	0.27	0.00	-0.02	101.33
	l2c8mi1	mi	73.01	0.26	12.63	1.82	0.01	0.22	1.89	3.34	2.77	0.10	96.07
	l2c8mi1	host	53.71	0.31	1.52	11.80	0.46	13.01	20.55	0.27	0.03	0.05	101.72
	l2c8mi2	mi	73.56	0.26	12.40	1.98	-0.04	0.23	1.72	3.41	2.67	0.05	96.28
	l2c8mi2	host	53.82	0.28	1.27	11.80	0.45	13.02	20.69	0.28	-0.01	0.01	101.62
	l2c9mi1	mi	72.15	0.16	12.73	1.93	0.11	0.30	2.19	3.87	1.98	0.03	95.44
	l2c9mi1	host	53.53	0.15	1.10	12.13	0.57	13.29	20.75	0.24	-0.01	0.01	101.78
	l2c9mi2	mi	73.72	0.23	12.37	1.73	0.08	0.22	1.75	3.43	2.55	0.05	96.13
	l2c9mi2	host	53.56	0.20	1.21	12.14	0.46	12.94	20.78	0.27	0.00	-0.02	101.56
	l4c10	mi	74.44	0.22	12.09	1.71	0.04	0.28	1.84	3.45	2.72	0.02	96.82
	l4c10	host	53.78	0.13	0.99	12.52	0.56	12.78	21.09	0.26	-0.05	0.01	102.11
	l4c23	mi	74.72	0.19	12.23	1.97	0.17	0.26	1.73	3.34	2.71	0.07	97.40
	l4c23	host	53.75	0.14	0.93	11.27	0.44	13.06	21.00	0.25	-0.01	0.04	100.89
	l4c29mi1	mi	74.22	0.18	12.06	2.08	0.07	0.23	1.78	3.35	2.62	-0.01	96.60
	l4c29mi1	host	53.48	0.16	0.85	11.75	0.58	13.07	20.84	0.25	-0.03	0.02	101.00
	l4c29mi2	mi	74.52	0.25	12.27	2.12	0.05	0.21	1.82	3.32	2.68	0.05	97.29
	l4c29mi2	host	53.61	0.13	0.92	13.30	0.65	12.82	20.01	0.23	-0.03	0.06	101.74
	l4c29mi3												

sample			SiO2	TiO2	Al2O3	FeO	MnO	MgO	CaO	Na2O	K2O	P2O5	Total	
			(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(%)	
mean standard deviation (wt%)			0.62	0.07	0.11	0.68	0.07	0.19	0.14	0.10	0.13	0.03		
mean detection limit (wt%)			0.08	0.05	0.04	0.18	0.06	0.03	0.05	0.06	0.08	0.03		
PLAG	I5c1	mi	73.17	0.17	12.29	1.33	0.06	0.19	1.72	3.56	2.85	0.01	95.35	
	I5c1	host	58.62	0.02	28.23	0.30	0.05	0.03	9.68	6.15	0.25	0.01	103.35	
	I5c16	mi	74.88	0.12	12.20	1.53	0.08	0.23	1.60	3.61	2.86	0.03	97.14	
	I5c16	host	58.94	0.04	27.45	0.26	0.03	0.03	9.07	6.21	0.25	-0.07	102.28	
	I6C2	mi	73.46	0.23	12.11	1.31	0.05	0.24	1.63	3.61	2.54	0.03	95.21	
	I6C2	host	68.25	0.14	19.48	1.11	-0.01	0.15	5.27	3.76	1.82	0.07	100.05	
	I6C3	mi	73.22	0.14	12.06	1.35	0.04	0.22	1.68	2.39	2.87	0.01	93.98	
	I6C3	host	57.19	-0.02	28.59	0.26	-0.03	0.00	10.65	5.36	0.21	-0.01	102.26	
	I7C13	mi	74.71	0.17	12.37	1.59	0.06	0.21	1.74	3.41	2.58	-0.03	96.84	
	I7C13	host	56.91	-0.01	29.13	0.42	0.01	0.00	11.01	5.17	0.18	-0.03	102.83	
	I7C17	mi	71.79	0.25	12.17	1.78	0.08	0.21	1.91	3.27	2.52	0.02	94.01	
	I7C17	host	53.56	-0.04	31.27	0.24	-0.01	0.03	13.67	3.72	0.14	0.03	102.65	
	I7C22	mi	74.35	0.18	12.11	1.40	0.09	0.26	1.64	3.48	2.76	-0.03	96.28	
	I7C22	host	56.43	0.10	29.52	0.30	0.03	0.01	11.46	5.03	0.19	-0.04	103.06	
	I7C24	mi	74.76	0.28	12.01	1.55	0.06	0.25	1.70	3.36	2.79	0.06	96.84	
	I7C24	host	55.82	0.02	30.05	0.31	-0.02	0.00	11.64	4.95	0.12	0.02	102.93	
	I7C4	mi	73.53	0.13	11.99	1.56	0.03	0.26	1.64	3.51	2.68	0.07	95.39	
	I7C4	host	55.82	0.08	29.44	0.31	0.06	0.01	11.21	5.21	0.19	-0.04	102.33	
	CPX	I5c11	mi	74.75	0.13	12.05	1.85	0.09	0.22	1.74	3.28	2.79	0.03	96.93
		I5c11	host	53.67	0.24	0.88	11.90	0.52	12.96	21.20	0.24	0.00	0.00	101.59
		I5c12	mi	71.64	0.25	12.42	2.06	0.03	0.21	1.62	2.62	3.17	0.04	94.05
		I5c12	host	53.81	0.26	1.38	11.86	0.47	13.18	20.86	0.27	0.01	0.02	102.12
		I5c13	mi	71.59	0.26	11.31	2.90	0.08	1.33	3.42	2.98	2.37	0.04	96.29
		I5c13	host	53.79	0.19	1.02	11.46	0.50	13.30	20.57	0.22	0.02	-0.03	101.09
		I5c14mi1	mi	71.07	0.23	13.48	1.93	0.03	0.24	2.14	3.70	2.68	0.08	95.58
		I5c14mi1	host	71.25	0.25	12.90	1.94	-0.02	0.26	2.13	0.06	0.74	-0.03	89.54
I5c14mi2		mi	73.33	0.21	12.53	1.96	0.04	0.22	1.77	3.41	2.74	0.05	96.27	
I5c14mi2		host	52.94	0.26	1.38	11.55	0.52	12.90	20.97	0.25	-0.01	0.01	100.78	
I5c17mi1		mi	73.77	0.17	12.40	1.88	0.01	0.22	1.56	3.62	2.68	0.09	96.39	
I5c17mi1		host	53.47	0.30	1.36	12.05	0.40	13.00	20.97	0.31	-0.02	-0.01	101.85	
I5c17mi2		mi	73.26	0.19	12.83	1.68	0.08	0.24	1.65	3.51	2.58	0.12	96.14	
I5c17mi2		host	53.56	0.27	1.39	11.58	0.49	13.21	20.88	0.25	-0.01	-0.04	101.64	
I5c2		mi	70.88	0.18	12.41	1.70	0.03	0.23	1.92	2.89	2.89	0.06	93.20	
I5c2		host	53.48	0.21	1.39	11.84	0.53	13.07	21.28	0.25	-0.03	-0.02	102.06	
I5c7		mi	73.10	0.15	12.83	1.73	0.07	0.20	1.87	3.40	2.62	0.05	96.02	
I5c7		host	53.57	0.21	1.10	11.52	0.48	13.11	20.99	0.23	-0.01	0.01	101.22	
I6c17		mi	73.75	0.32	12.53	1.87	0.08	0.23	1.72	3.59	2.89	0.06	97.03	
I6c17		host	53.45	0.37	1.55	11.89	0.26	13.10	20.52	0.24	0.01	-0.07	101.39	
I6c25		mi	73.54	0.23	12.28	1.89	0.04	0.18	1.58	3.49	3.11	0.03	96.36	
I6c25		host	54.09	0.25	1.20	11.66	0.55	13.09	20.79	0.29	0.00	0.02	101.94	
PPR2														
OPX		L1C3	mi	75.48	0.14	11.85	1.86	0.06	0.21	1.87	1.47	2.52	0.01	95.47
		L1C3 h	host	51.90	0.17	0.61	25.94	1.00	18.53	1.07	0.00	0.02	0.01	99.26
		L2C10	mi	75.18	0.25	12.29	1.85	0.07	0.23	1.58	2.26	2.66	0.05	96.41
	L2C10 h	host	51.62	0.12	0.54	26.48	1.16	18.32	1.16	0.02	-0.03	0.01	99.43	
	L2C16	mi	76.66	0.12	11.45	2.28	0.07	0.25	1.55	3.28	2.11	0.03	97.81	
	L2C16	host	54.64	0.03	0.49	26.51	1.15	17.75	0.92	0.01	0.02	0.00	101.53	
	L2C17	mi	76.51	0.03	11.40	2.16	0.02	0.18	1.33	3.08	2.48	0.00	97.19	
	L2C17	host	53.67	0.07	0.48	27.30	1.13	16.93	0.88	0.00	0.00	0.03	100.49	
	L2C3	mi	74.48	0.15	11.44	2.59	0.11	0.20	1.54	3.08	2.40	0.01	95.98	
	L2C3	host	52.85	0.03	0.50	27.16	1.16	17.21	0.81	0.00	0.00	0.00	99.74	
	L2C5	mi	74.70	0.14	11.02	2.07	0.07	0.16	1.47	3.35	2.32	0.04	95.35	
	L2C5	host	54.13	0.12	0.43	26.68	1.15	17.59	0.96	0.00	0.00	0.06	101.13	
	L2C6	mi	75.79	0.16	11.34	1.96	0.00	0.19	1.42	3.28	2.20	0.07	96.40	
	L2C6	host	53.91	0.02	0.49	25.91	1.00	18.20	0.94	0.04	0.01	0.01	100.52	
	L2C6MI1	mi	74.24	0.26	12.10	2.40	0.14	0.25	1.60	3.45	2.98	0.03	97.43	
	L2C6MI1 h	host	52.56	0.12	0.51	26.11	1.03	18.51	1.06	-0.01	0.00	0.04	99.94	
	L2C6MI2	mi	75.30	0.23	11.72	1.67	0.13	0.22	1.64	2.13	3.07	0.01	96.12	
	L2C6MI2 h	host	52.42	0.13	0.57	26.09	0.98	18.46	1.06	0.01	-0.02	0.00	99.73	
	L2C7	mi	73.59	0.22	12.09	1.93	0.08	0.27	1.79	3.61	2.80	0.01	96.37	
	L2C7 h	host	52.59	0.15	0.75	25.87	0.87	18.69	1.14	0.01	0.02	-0.05	100.08	
	L3c13mi1	mi	74.81	0.27	12.38	1.71	0.05	0.28	1.86	3.53	2.60	-0.01	97.49	
	L3c13mi1 h	host	52.55	0.13	0.66	25.60	1.03	18.99	1.15	-0.02	0.02	0.01	100.13	
	L3c13mi2	mi	75.12	0.21	12.14	1.92	0.11	0.20	1.88	1.60	2.68	0.05	95.90	
	L3c13mi2 h	host	52.17	0.17	0.75	25.47	1.01	18.87	1.10	0.04	-0.01	-0.01	99.59	
	L3C18MI1	mi	74.44	0.15	11.50	1.89	0.05	0.19	1.75	3.33	2.26	0.08	95.62	
	L3C18MI1	host	54.05	0.00	0.52	25.72	1.17	18.51	0.85	0.02	0.01	0.03	100.88	
	L3C18MI2	mi	74.19	0.10	11.80	1.73	0.00	0.18	1.66	3.25	2.17	0.03	95.12	
	L3C18MI2	host	53.58	0.09	0.44	25.79	1.05	18.80	0.86	0.00	0.00	0.00	100.60	
	L3C2	mi	73.82	0.13	11.52	1.88	0.06	0.19	1.69	3.43	1.94	0.01	94.68	
	L3C2	host	53.36	0.05	0.57	25.36	0.94	17.96	1.03	0.00	0.05	0.05	99.37	
	L3C24	mi	75.51	0.10	11.03	1.99	0.09	0.19	1.43	3.19	2.27	0.03	95.83	
	L3C24	host	54.61	0.00	0.42	27.43	1.04	17.56	0.99	0.03	0.00	0.00	102.08	
	L3C8MI2	mi	76.54	0.16	11.57	1.94	0.12	0.19	1.37	3.35	2.36	0.05	97.65	
	L3C8MI2	host	53.98	0.17	0.62	26.08	1.07	18.09	1.01	0.02	0.00	0.02	101.05	
	L4c10	mi	75.47	0.08	12.05	1.80	0.14	0.17	1.59	3.43	2.59	-0.01	97.32	
	L4c10 h	host	52.43	0.13	0.68	26.41	1.17	18.02	1.11	0.02	0.02	-0.04	99.99	
	L5C13	mi	74.69	0.09	11.24	2.18	0.09	0.25	1.58	3.49	2.06	0.02	95.70	
	L5C13	host	53.80	0.12	0.48	25.61	1.03	18.04	0.96	0.02	0.00	0.02	100.07	
	L8c2mi2	mi	73.44	0.30	12.06	2.40	0.10	0.19	1.80	3.61	2.76	0.03	96.69	
	L8c2mi2 h	host	52.00	0.14	0.59	25.62	0.78	18.79	1.05	0.01	0.01	0.02	99.02	
	MGT	I10c18	mi	74.65	0.32	12.60	2.25	0.04	0.21	1.73	3.58	2.94	0.00	98.31
		I10c18	host	0.10	9.97	2.00	81.59	0.46	1.06	0.03	0.02	0.00	-0.01	95.21
		I10c30mi1	mi	75.15	0.52	12.29	3.28	0.01	0.25	1.75	3.48	2.72	0.18	99.63
		I10c30mi1	host	0.01	10.43	1.95	81.72	0.34	0.96	0.03	0.01	0.05	0.02	95.53
		I10c30mi2	mi	74.46	0.38	12.22	2.21	0.01	0.23	1.73	3.33	2.81	-0.01	97

sample		SiO2	TiO2	Al2O3	FeO	MnO	MgO	CaO	Na2O	K2O	P2O5	Total		
		(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(%)		
mean standard deviation (wt%)		0.62	0.07	0.11	0.68	0.07	0.19	0.14	0.10	0.13	0.03			
mean detection limit (wt%)		0.08	0.05	0.04	0.18	0.06	0.03	0.05	0.06	0.08	0.03			
PLAG	l8c1mi2	host	0.07	10.14	1.89	81.81	0.45	0.99	0.00	0.04	-0.02	0.04	95.43	
	l8c26	mi	74.55	0.53	12.15	2.28	0.05	0.28	1.99	3.79	1.40	0.06	97.09	
	l8c26	host	0.01	47.60	-0.21	49.49	0.69	1.85	0.01	0.03	0.02	-0.05	99.70	
	l8c27	mi	74.20	0.69	12.46	2.13	0.10	0.26	1.81	3.69	2.82	0.01	98.17	
	l8c27	host	0.05	46.09	-0.24	50.10	0.50	1.87	-0.01	0.00	-0.02	0.04	98.66	
	l9c30	mi	73.83	1.00	12.39	2.56	0.09	0.22	1.69	3.41	2.75	0.06	98.00	
	l9c30	host	0.05	46.96	-0.13	50.38	0.69	1.83	0.00	0.01	-0.03	0.03	99.96	
	l10c7	mi	74.75	0.15	12.02	1.45	0.02	0.25	1.79	3.37	2.60	-0.01	96.40	
	l10c7	host	55.32	0.10	29.53	0.32	-0.02	0.03	11.69	4.97	0.16	-0.01	102.12	
	l8c16	mi	73.70	0.22	11.96	1.54	0.05	0.22	1.73	3.52	2.81	-0.02	95.75	
	l8c16	host	55.75	0.01	30.28	0.33	0.04	0.03	11.86	4.94	0.14	0.06	103.43	
	l8c25	mi	74.82	0.19	12.38	1.58	0.06	0.22	1.88	4.03	2.35	0.03	97.53	
	l8c25	host	56.88	0.02	29.03	0.40	0.03	-0.01	10.92	5.34	0.15	0.04	102.81	
	l9c16	mi	73.75	0.28	12.11	1.52	0.03	0.25	1.73	3.71	2.98	0.05	96.40	
	l9c16	host	53.05	0.03	31.50	0.36	0.04	0.01	13.40	3.90	0.09	0.01	102.37	
	l9c23	mi	71.79	0.24	13.89	1.31	0.05	0.18	2.67	3.47	2.81	0.06	96.46	
	l9c23	host	51.53	-0.02	32.05	0.15	-0.03	0.01	14.52	3.38	0.11	-0.01	101.75	
	l9c30	mi	73.65	0.15	12.00	1.26	0.02	0.18	1.57	3.46	2.71	0.01	95.01	
	l9c30	host	56.94	0.03	28.85	0.27	0.01	0.00	10.80	5.34	0.21	0.06	102.50	
	l9c3mi1	mi	72.82	0.21	11.50	1.41	0.02	0.20	1.57	2.91	3.68	0.05	94.38	
	l9c3mi1	host	57.47	0.02	29.00	0.25	0.01	0.04	10.53	5.40	0.15	-0.01	102.86	
	l9c3mi2	mi	74.19	0.10	12.01	1.50	0.00	0.23	1.72	3.49	2.71	0.01	95.96	
	l9c3mi2	host	55.10	0.04	29.46	0.25	0.01	-0.03	11.67	4.91	0.15	-0.01	101.59	
	l9c4	mi	75.01	0.15	12.29	1.77	0.05	0.25	1.79	3.39	2.76	0.04	97.50	
	l9c4	host	64.31	0.15	22.82	1.08	0.07	0.11	5.93	3.42	1.64	-0.02	99.53	
	l9c5	mi	75.31	0.22	12.49	1.63	0.07	0.24	1.73	3.67	2.88	-0.01	98.24	
	l9c5	host	57.23	0.02	28.64	0.37	-0.01	0.03	10.44	5.52	0.26	0.04	102.54	
	CPX	l10c2	mi	71.98	0.23	12.57	1.83	0.01	0.25	1.73	3.48	2.70	0.01	94.78
		l10c2	host	54.14	0.36	1.31	12.02	0.41	12.93	20.68	0.28	-0.02	0.01	102.15
		l10c21	mi	72.37	0.14	11.63	1.56	0.09	0.23	1.65	3.00	3.16	0.00	93.83
l10c21		host	53.52	0.24	1.07	11.81	0.59	13.13	21.11	0.26	0.04	0.01	101.77	
l10c3		mi	72.87	0.25	11.84	1.69	0.05	0.19	1.77	3.03	2.90	0.05	94.64	
l10c3		host	53.41	0.26	1.24	11.60	0.47	12.92	20.78	0.18	-0.03	0.06	100.92	
l10c7		mi	70.09	0.26	12.39	1.71	0.02	0.21	1.89	2.33	3.00	0.02	91.91	
l10c7		host	53.54	0.26	1.44	11.68	0.49	13.17	20.96	0.26	0.00	0.02	101.82	
l8c12		mi	73.20	0.25	12.91	1.81	0.17	0.28	2.05	3.45	2.46	-0.02	96.58	
l8c12		host	53.25	0.33	1.51	11.20	0.47	13.02	20.67	0.32	0.02	-0.01	100.80	
l8c2		mi	69.18	0.25	11.32	2.48	0.10	1.23	3.11	2.98	2.91	0.06	93.63	
l8c2		host	52.61	0.25	1.23	11.64	0.40	13.18	21.26	0.29	0.01	0.01	100.86	
l8c3		mi	70.20	0.21	11.06	2.42	0.12	1.05	3.17	2.54	3.34	0.02	94.12	
l8c3		host	57.54	0.24	2.43	9.99	0.37	11.53	17.86	0.55	0.64	-0.04	101.14	
l8c30		mi	73.20	0.23	12.12	1.68	0.10	0.22	1.74	3.21	2.59	-0.05	95.08	
l8c30		host	53.54	0.30	1.26	12.02	0.47	12.75	20.80	0.28	0.01	0.07	101.51	
l9c22mi1		mi	74.61	0.18	11.97	1.94	0.03	0.22	1.66	3.53	2.65	0.03	96.83	
l9c22mi1		host	53.63	0.24	1.13	11.92	0.41	13.03	20.65	0.27	-0.01	-0.02	101.28	
l9c22mi2		mi	74.17	0.23	12.17	2.03	0.03	0.19	1.63	3.47	2.50	0.03	96.44	
l9c22mi2		host	53.68	0.21	1.09	12.31	0.61	12.79	20.39	0.20	0.00	-0.05	101.28	
l9c25		mi	72.71	0.20	12.09	1.72	0.08	0.19	1.53	3.15	3.39	0.05	95.10	
l9c25		host	52.97	0.27	1.40	11.84	0.57	12.87	21.30	0.31	0.00	0.08	101.61	
l9c6		mi	73.94	0.17	12.55	1.83	0.01	0.22	1.64	3.42	2.76	0.01	96.55	
l9c6		host	54.11	0.18	1.09	11.68	0.53	12.88	20.91	0.23	-0.01	0.01	101.61	
PPR3														
OPX		L2C13MI1	mi	76.84	0.14	11.48	2.03	0.06	0.21	1.55	3.38	2.34	0.04	98.07
		L2C13MI1	host	53.91	0.11	0.50	27.10	1.15	18.68	0.96	0.02	0.04	0.00	102.46
	L2C13MI2	mi	76.68	0.17	11.29	2.08	0.10	0.21	1.56	3.28	2.23	0.01	97.62	
	L2C13MI2	host	54.25	0.11	0.56	27.14	1.04	18.32	1.00	0.00	0.04	0.00	102.46	
	L2C17	mi	76.02	0.08	11.45	1.97	0.13	0.24	1.50	3.23	2.46	0.08	97.16	
	L2C17	host	53.74	0.00	0.42	27.10	1.14	17.50	0.91	0.00	0.05	0.06	100.92	
	L2C23	mi	76.38	0.07	11.80	1.99	0.05	0.22	1.59	3.39	2.23	0.04	97.76	
	L2C23	host	54.27	0.05	0.56	26.67	1.06	18.62	0.92	0.04	0.01	0.02	102.23	
	L3C6	mi	76.42	0.12	11.51	2.11	0.00	0.23	1.49	3.47	2.37	0.01	97.74	
	L3C6	host	54.50	0.07	0.51	27.18	1.10	18.14	1.01	0.04	0.02	0.02	102.59	
	L4C13	mi	76.77	0.05	11.51	2.16	0.06	0.22	1.44	3.24	2.26	0.04	97.74	
	L4C13	host	54.36	0.08	0.64	27.66	1.10	17.81	0.83	0.03	0.00	0.03	102.54	
	L4C16	mi	76.08	0.09	11.86	2.17	0.09	0.22	1.42	3.15	2.91	0.02	98.01	
	L4C16	host	53.92	0.14	0.49	28.24	1.33	17.16	0.97	0.01	0.04	0.01	102.30	
	L4C8	mi	54.51	0.00	29.70	1.02	0.00	0.01	12.40	3.83	0.07	0.02	101.57	
	L4C8	host	55.22	0.05	0.64	25.87	0.99	18.95	1.04	0.08	0.00	0.01	102.85	
	L5C17	mi	75.76	0.15	12.09	2.01	0.10	0.22	1.62	3.32	2.27	0.02	97.56	
	L5C17	host	53.95	0.08	0.63	26.84	1.14	17.96	1.02	0.06	0.02	0.06	101.76	
	L5C34	mi	76.18	0.12	11.49	2.20	0.06	0.17	1.54	3.21	2.30	0.10	97.36	
	L5C34	host	54.00	0.13	0.65	27.27	1.00	17.31	0.98	0.02	0.00	0.01	101.37	
MGT	l11c22mi1	mi	0.03	10.17	1.69	81.12	0.37	0.87	0.04	-0.01	0.01	-0.01	94.30	
	l11c22mi1	host	73.80	0.35	12.01	2.66	0.05	0.21	1.58	3.35	2.67	0.03	96.68	
	l11c22mi2	mi	0.05	10.43	1.73	80.19	0.39	1.01	0.03	0.03	-0.02	0.08	93.96	
	l11c22mi2	host	74.14	0.26	12.11	2.46	0.07	0.19	1.65	2.05	2.68	0.02	95.61	
	l12c10	mi	56.80	0.13	29.22	1.53	0.01	0.01	10.98	5.62	0.16	-0.05	104.47	
	l12c10	host	0.08	9.98	1.84	81.64	0.51	0.95	0.01	0.04	0.00	0.02	95.06	
	l12c11	mi	74.77	0.23	12.15	2.74	-0.02	0.20	1.53	3.48	2.94	0.07	98.10	
	l12c11	host	0.08	10.58	1.68	82.14	0.37	0.93	0.03	0.00	0.00	-0.02	95.82	
	l12c14	mi	74.41	0.90	12.28	2.14	0.08	0.27	1.70	3.66	2.73	0.10	98.26	
	l12c14	host	0.03	47.34	-0.08	49.61	0.63	1.80	0.00	0.01	0.04	-0.02	99.46	
	l12c2	mi	74.66	0.31	12.30	2.17	0.03	0.18	1.74	3.42	2.89	0.04	97.74	
	l12c2	host	0.07	10.44	1.83	81.78	0.46	0.99	0.00	-0.04	0.02	0.02	95.61	
	l12c6	mi	74.34	0.38	12.18	2.36	-0.01	0.27	1.88	3.65	2.45	0.04	97.55	
	l12c6	host	0.01	10.42	1.75	81.64	0.44							

sample		SiO2	TiO2	Al2O3	FeO	MnO	MgO	CaO	Na2O	K2O	P2O5	Total		
		(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(wt%)	(%)		
mean standard deviation (wt%)		0.62	0.07	0.11	0.68	0.07	0.19	0.14	0.10	0.13	0.03			
mean detection limit (wt%)		0.08	0.05	0.04	0.18	0.06	0.03	0.05	0.06	0.08	0.03			
PLAG	l13c9	mi	0.10	10.49	1.69	79.68	0.42	1.05	0.02	0.04	0.02	0.05	93.56	
	l13c9	host	74.11	0.31	12.29	2.30	0.03	0.22	1.71	3.83	2.53	0.06	97.40	
	l11c14	mi	73.39	0.19	11.87	1.79	0.07	0.28	1.81	3.18	3.03	0.03	95.63	
	l11c14	host	55.54	-0.02	29.52	0.28	-0.02	0.02	11.62	4.91	0.16	-0.02	102.05	
	l11c15mi1	mi	72.89	0.18	12.20	1.46	0.10	0.26	1.64	3.58	2.98	0.03	95.32	
	l11c15mi1	host	51.51	0.05	32.24	0.41	-0.01	0.00	14.67	3.27	0.08	-0.03	102.24	
	l11c15mi2	mi	74.47	0.19	12.31	1.05	0.03	0.21	1.66	3.64	2.96	0.03	96.54	
	l11c15mi2	host	55.67	0.04	29.52	0.24	0.02	0.01	11.53	4.89	0.21	-0.06	102.13	
	l11c17	mi	72.19	0.24	12.06	1.84	0.02	0.24	1.76	3.49	2.96	0.00	94.80	
	l11c17	host	52.79	-0.04	31.62	0.40	-0.05	-0.01	13.28	3.91	0.07	-0.01	102.07	
	l12c2	mi	73.75	0.30	12.36	1.58	0.05	0.22	1.82	3.69	2.53	0.04	96.33	
	l12c2	host	49.05	0.00	33.93	0.36	0.02	0.00	16.10	2.26	0.05	0.02	101.79	
	l13c14mi1	mi	71.52	0.24	13.44	1.31	0.06	0.23	2.35	3.59	2.65	0.07	95.47	
	l13c14mi1	host	50.46	-0.03	32.21	0.26	0.05	0.03	14.75	3.29	0.11	0.04	101.20	
	l13c14mi2	mi	73.40	0.32	11.78	1.36	0.09	0.22	1.79	3.04	3.27	0.10	95.38	
	l13c14mi2	host	55.82	0.04	29.30	0.33	0.01	0.02	11.11	5.16	0.21	-0.02	102.00	
	CPX	l13c18	mi	74.78	0.10	12.61	1.72	0.03	0.21	1.90	3.65	2.67	-0.01	97.68
		l13c18	host	57.29	0.01	28.87	0.25	-0.03	0.00	10.81	5.46	0.15	0.01	102.86
l13c4		mi	74.07	0.07	12.22	1.70	0.06	0.24	1.82	3.52	2.85	0.09	96.64	
l13c4		host	53.14	0.01	31.85	0.38	0.03	0.02	13.89	3.76	0.09	0.03	103.19	
l11c13		mi	74.74	0.23	12.58	1.85	0.03	0.20	1.69	3.38	2.75	0.01	97.44	
l11c13		host	53.37	0.21	1.04	11.94	0.49	12.57	20.67	0.25	0.01	0.03	100.56	
l11c3mi1		mi	72.86	0.19	11.37	2.22	0.09	0.62	2.37	2.68	3.48	-0.01	95.87	
l11c3mi1		host	53.62	0.20	1.02	12.28	0.59	12.89	20.96	0.28	-0.01	-0.02	101.83	
l11c3mi2		mi	73.47	0.20	12.54	1.79	0.05	0.21	1.81	3.25	2.78	0.01	96.12	
l11c3mi2		host	53.69	0.15	0.99	11.50	0.54	12.93	21.34	0.24	0.03	-0.04	101.42	
l12c17mi1		mi	73.77	0.14	11.99	1.81	0.08	0.20	1.74	3.21	2.92	0.03	95.89	
l12c17mi1		host	54.09	0.24	1.11	11.11	0.52	13.15	21.10	0.27	0.00	0.07	101.65	
l12c17mi2		mi	72.81	0.22	12.22	1.61	0.05	0.23	1.87	3.08	2.81	0.03	94.94	
l12c17mi2		host	53.75	0.17	1.09	11.71	0.53	13.01	21.18	0.23	0.01	0.06	101.75	
l12c1mi1		mi	74.30	0.21	12.62	1.90	0.06	0.26	1.81	3.46	2.73	0.05	97.40	
l12c1mi1		host	53.63	0.24	1.12	11.49	0.38	12.90	20.68	0.26	-0.03	0.02	100.72	
l12c1mi2		mi	74.20	0.25	12.40	2.06	0.07	0.25	1.83	3.47	2.72	0.01	97.27	
l12c1mi2		host	53.49	0.29	1.15	11.99	0.51	12.80	21.08	0.26	0.00	0.08	101.65	
l13c16	mi	71.43	0.20	12.68	1.98	0.08	0.22	1.86	3.26	2.99	0.10	94.79		
l13c16	host	53.07	0.26	1.21	13.83	0.58	13.64	18.11	0.22	0.01	0.00	100.93		
l13c17mi1	mi	73.08	0.19	12.23	1.69	0.01	0.19	1.60	3.37	2.97	0.03	95.37		
l13c17mi1	host	54.31	0.24	1.04	11.35	0.50	13.12	21.06	0.27	0.00	0.01	101.91		
l13c17mi2	mi	74.30	0.24	12.17	1.62	0.04	0.18	1.65	3.35	3.03	0.08	96.66		
l13c17mi2	host	53.79	0.17	1.07	11.46	0.55	12.83	20.75	0.29	-0.01	-0.01	100.93		