

**Table S3. Rare earth element contents of the #50 apatite from the root-zone kimberlites (pipe No. 50) and the #110 apatite from the dike/sill kimberlites (pipe No. 110) determined via LA-ICP-MS (ppm).**

Sample	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
#50 apatite from the root-zone kimberlites (pipe No. 50)														
#50-1	1149	1691	158.2	575.5	82.8	21.03	48.7	3.96	14.82	1.81	3.05	0.24	0.93	0.1
#50-2	1139	1604	151	538	79.5	20.65	49.7	3.98	14.95	1.74	3.11	0.26	0.88	0.11
#50-3	1171	1749	163.8	583	81.1	20.66	47	3.87	13.33	1.58	2.53	0.24	0.99	0.08
#50-4	1073	1571	150.5	536.8	75.6	19.65	46.2	3.69	13.8	1.64	2.79	0.21	0.95	0.1
#50-5	1085	1590	154.5	577	84.0	21.8	52.3	3.89	15.1	1.86	3.03	0.21	1.02	0.1
#50-6	746	1130	113.8	419	69.9	18.41	43.9	3.6	13.26	1.54	2.71	0.2	0.76	0.09
#50-7	1167	1681	158.9	585	83.7	20.67	50.7	3.92	14.97	1.78	3.19	0.28	1.05	0.1
#50-8	2492	3050	264.4	882	108.7	26.62	57.9	4.07	13.9	1.49	2.28	0.17	0.63	0.06
#50-9	1610	1900	159.0	505	66.8	16.9	36.7	3.16	12.6	1.48	2.87	0.26	1.03	0.09
#50-10	1807	2206	189.4	603	74.2	18.16	40.9	3.27	12.18	1.457	2.6	0.2	0.83	0.11
#50-11	3202	3949	359.6	1161	141.8	32.93	69.1	4.6	14.17	1.36	2.09	0.13	0.48	0.05
#50-12	3010	3740	335	1077	127.9	30.40	62.2	4.03	13.52	1.30	1.91	0.12	0.36	0.04
#50-13	2359	3700	340	1136	149	37.4	79.5	6.92	31.1	4.02	8.8	0.91	6.7	0.9
#50-14	3130	3770	344	1098	134.7	31.90	68.1	4.76	16.18	1.73	2.95	0.2	0.77	0.07
#50-15	3088	3819	345	1108	137.3	32.06	69.1	4.79	15.5	1.58	2.17	0.16	0.54	0.04
#50-16	887	1323	114	373	43.4	10.62	26.5	2.19	10.1	1.39	2.66	0.26	1.42	0.24
#50-17	2144	2699	239.5	768	89.7	21.39	48.3	3.56	13.02	1.51	2.51	0.21	0.87	0.08
#50-18	2229	2822	245.4	796	94.6	22.79	49.9	3.79	14.24	1.71	2.89	0.22	0.95	0.10
#50-19	2111	2592	217.6	678	72.6	17.28	36.94	2.86	10.97	1.3	2.39	0.21	0.93	0.12
#50-20	1871	2417	210	675	79.8	19.20	41.7	3.11	11.72	1.37	2.26	0.16	0.67	0.10
#50-21	1188	1503	128.7	423.6	52.3	13.49	30.55	2.45	9.5	1.11	1.99	0.15	0.57	0.06
#50-22	1059	1369	118.5	380.6	45.3	11.17	25.61	2.03	7.23	0.86	1.47	0.11	0.52	0.05
#50-23	1534	1872	159.6	511	62.1	16.24	36.2	2.86	11.51	1.39	2.68	0.17	0.99	0.11
#50-24	1657	2038	180.3	598	75.7	18.27	41.8	3.01	10.92	1.23	2.04	0.17	0.69	0.07
#50-25	2778	3458	300.4	954	110.7	26.33	57	4.3	15.79	1.81	3.35	0.23	1.13	0.12
#50-26	1197	1489	128.2	414.7	49.4	12.61	28.52	2.33	9.36	1.12	2.1	0.18	0.71	0.07
#110 apatite from the dike/sill kimberlites (pipe No. 110)														
#110-1	1843	2419	217.7	733	110.5	30.13	75.3	6.74	28.13	3.54	6.41	0.53	2.4	0.26
#110-2	1958	2418	215.6	748	117.1	33.01	87.6	7.78	32.71	4.14	7.58	0.63	2.91	0.31
#110-3	1843	2499	229.5	796	121.2	34.25	87.9	8.02	34	4.17	7.71	0.55	2.44	0.24
#110-4	1946	2587	235.4	814	125.8	35.24	88.3	7.97	33.05	4.24	7.33	0.6	2.45	0.26
#110-5	1990	2701	243.4	831	125.2	34.4	86.7	8.09	34.2	4.14	7.4	0.63	2.6	0.29
#110-6	2167	2745	246.2	851	131.5	36.22	92.6	8.37	35.33	4.4	7.86	0.68	3.11	0.32
#110-7	1976	2581	231.2	787	119	34.5	88.7	8.22	33.77	4.21	7.58	0.61	2.79	0.25
#110-8	1944	2567	236.2	804	123.5	34.77	88.6	8.08	33.65	4.23	7.29	0.57	2.26	0.25
#110-9	2025	2747	248.3	845	125.2	35.32	86.5	8.07	32.83	4.03	7.46	0.56	2.42	0.24
#110-10	1720	2416	223.8	782	121	33.6	84.4	8.14	35.2	4.37	7.8	0.57	2.51	0.2
#110-11	634	932	91.7	299	42.2	12.18	31.4	2.76	11.83	1.47	2.42	0.23	1.12	0.06

Table S3 continued from previous page

#110-12	2240	2926	258.6	900	128.8	34.7	87.2	7.85	32.3	4.17	7.33	0.61	2.9	0.3
#110-13	2119	2811	253.5	868	123.1	34.01	85.5	7.88	33.25	4.33	7.96	0.69	3.18	0.31
#110-14	1954	2713	255.8	890	136.2	36.94	90.8	8.60	36.23	4.72	8.77	0.76	3.22	0.36

#110-15	1812	2543	235.1	817	119.7	31.95	79.7	7.58	31.7	3.98	7.07	0.53	2.65	0.27
#110-16	1894	2644	239	812	119.1	31.43	78.9	7.13	30.56	3.77	7.17	0.63	2.59	0.29
#110-17	1619	2451	237	840	122.1	32.5	86.2	7.35	31	4.02	6.79	0.56	2.01	0.22
#110-18	1716	2392	220.1	771	117.1	32.51	82	7.35	30.1	3.94	6.55	0.59	2.36	0.24
#110-19	1843	2424	226.1	783	123.3	34	87.6	8.06	31.7	4.06	7.88	0.65	2.80	0.3
#110-20	2401	3540	333	1128	165.9	45.9	111.7	10.05	42.2	4.95	8.99	0.74	2.98	0.31
#110-21	1921	2722	255.7	892	131.7	36.56	92.3	7.98	33.97	4.2	7.49	0.62	2.53	0.28
#110-22	1704	2043	184.3	660	108.5	31.99	83.7	7.56	31.17	3.96	7.57	0.61	2.73	0.29
#110-23	1684	2025	181	636	102.7	30.63	80.6	7.21	30.96	4.05	7.37	0.58	2.72	0.29
#110-24	1761	2010	174	613	104.6	31.93	83.1	7.69	32.09	4.24	8.29	0.73	3.22	0.33
#110-25	1696	2101	188.1	662	108.2	31.89	84	7.95	33.3	4.16	8.22	0.64	2.9	0.3
#110-26	1884	2519	227.5	782	126.8	36.8	96.1	9.13	38.8	5.14	9.62	0.83	3.54	0.36
#110-27	440	751	69.1	243	27.5	7.5	23.3	1.99	9.1	1.13	1.94	0.24	1.36	0.13

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