

Data Repository Table 1. U-Pb (igneous zircons) geochronologic analyses by Laser-Ablation Multicollector ICP Mass Spectrometry.

Analysis	U (ppm)	Isotopic ratios						Apparent ages (Ma)								
		206Pb 204Pb	U/Th	207Pb*	±	206Pb*	±	error	206Pb* 238U	±	207Pb* 235U	±	206Pb* 207Pb*	±	Best age (Ma)	± (Ma)
Sample 61052, Kailas granite sample																
61052-30	650	1777	1.2	0.06495	18.9	0.00800	3.5	0.19	51.4	1.8	63.9	11.7	563.0	408.3	51.4	1.8
61052-15	1174	5747	1.3	0.05925	6.5	0.00819	2.5	0.39	52.6	1.3	58.5	3.7	305.2	136.2	52.6	1.3
61052-6	558	2696	0.8	0.05608	18.5	0.00827	3.4	0.18	53.1	1.8	55.4	9.9	155.9	427.6	53.1	1.8
61052-25	400	1902	1.1	0.06761	15.3	0.00829	5.0	0.32	53.2	2.6	66.4	9.9	572.1	317.3	53.2	2.6
61052-9	595	2829	0.6	0.06257	14.8	0.00829	2.8	0.19	53.2	1.5	61.6	8.8	401.1	326.5	53.2	1.5
61052-2	342	1388	1.2	0.05888	20.5	0.00838	2.6	0.13	53.8	1.4	58.1	11.6	238.4	473.6	53.8	1.4
61052-14	596	2911	0.9	0.06093	17.6	0.00840	1.8	0.10	54.0	1.0	60.1	10.3	310.5	401.8	54.0	1.0
61052-21	710	2094	1.2	0.06203	13.3	0.00846	2.9	0.22	54.3	1.6	61.1	7.9	337.0	294.0	54.3	1.6
61052-13	969	3600	1.3	0.05854	6.9	0.00847	3.8	0.55	54.3	2.0	57.8	3.9	202.1	134.7	54.3	2.0
61052-24	435	2227	1.0	0.05622	15.4	0.00849	2.8	0.18	54.5	1.5	55.5	8.3	101.5	359.3	54.5	1.5
61052-18	412	1736	1.3	0.07098	12.4	0.00851	3.5	0.28	54.6	1.9	69.6	8.4	620.7	258.3	54.6	1.9
61052-4	855	3694	1.2	0.06002	8.9	0.00853	1.5	0.17	54.8	0.8	59.2	5.1	242.1	201.6	54.8	0.8
61052-29	424	1405	0.6	0.07505	12.9	0.00855	3.5	0.27	54.9	1.9	73.5	9.2	731.2	264.1	54.9	1.9
61052-3	524	1603	0.8	0.05674	16.4	0.00855	3.1	0.19	54.9	1.7	56.0	8.9	105.3	382.0	54.9	1.7
61052-10	381	2277	1.2	0.05063	28.6	0.00856	3.0	0.11	55.0	1.7	50.1	14.0	-174.4	720.8	55.0	1.7
61052-7	443	1293	0.8	0.08220	14.0	0.00857	5.7	0.41	55.0	3.1	80.2	10.8	915.2	265.1	55.0	3.1
61052-8	565	1651	1.0	0.07336	13.4	0.00866	3.3	0.25	55.6	1.9	71.9	9.3	654.9	279.7	55.6	1.9
61052-1	471	2133	0.6	0.06595	11.0	0.00871	2.2	0.20	55.9	1.2	64.9	6.9	408.7	243.0	55.9	1.2
61052-28	478	2010	0.6	0.07270	18.5	0.00872	2.2	0.12	56.0	1.2	71.3	12.7	620.2	399.5	56.0	1.2
61052-11	215	1140	0.8	0.05481	20.5	0.00873	2.9	0.14	56.0	1.6	54.2	10.8	-27.6	497.4	56.0	1.6
61052-20	269	1370	0.8	0.06101	17.6	0.00874	3.7	0.21	56.1	2.1	60.1	10.3	222.6	400.6	56.1	2.1
61052-5	420	2346	0.9	0.05947	11.7	0.00877	2.8	0.24	56.3	1.6	58.7	6.7	155.4	267.5	56.3	1.6
61052-22	339	1571	0.9	0.05867	15.3	0.00879	4.1	0.27	56.4	2.3	57.9	8.6	120.1	348.3	56.4	2.3
61052-17	232	1488	1.0	0.06780	28.8	0.00880	4.0	0.14	56.5	2.3	66.6	18.6	446.2	645.7	56.5	2.3
61052-19	380	2158	1.1	0.06483	18.4	0.00884	3.0	0.16	56.8	1.7	63.8	11.4	336.0	415.1	56.8	1.7
61052-27	328	1576	1.0	0.07281	25.4	0.00889	2.9	0.11	57.1	1.6	71.4	17.5	580.8	557.1	57.1	1.6
61052-26	1431	5204	0.7	0.06116	8.1	0.00920	5.2	0.64	59.0	3.1	60.3	4.8	110.1	147.7	59.0	3.1
61052-23	585	3260	0.7	0.07060	11.3	0.00927	2.7	0.24	59.5	1.6	69.3	7.6	422.3	246.7	59.5	1.6

7KR465-15	1272	4920	0.8	0.0246	8.6	0.0038	1.3	0.15	24.3	0.3	24.7	2.1	62.8	201.9	24.3	0.3
7KR465-11	450	1770	0.9	0.0374	32.2	0.0038	1.7	0.05	24.5	0.4	37.3	11.8	964.7	673.6	24.5	0.4
7KR465-5	205	1250	1.6	0.0468	51.6	0.0039	1.4	0.03	25.0	0.4	46.4	23.4	1363.3	1070.7	25.0	0.4
7KR465-8	803	4225	1.8	0.0280	13.6	0.0039	6.9	0.50	25.3	1.7	28.0	3.7	270.8	269.4	25.3	1.7
7KR465-6	276	1445	1.1	0.0347	53.7	0.0040	3.8	0.07	25.8	1.0	34.6	18.3	699.2	1232.1	25.8	1.0
7KR465-25	1528	1500	0.5	0.0512	6.7	0.0041	1.7	0.25	26.2	0.4	50.7	3.3	1453.4	124.4	26.2	0.4
7KR465-19	443	1485	2.0	0.0499	30.4	0.0041	4.7	0.15	26.6	1.2	49.5	14.7	1372.3	592.0	26.6	1.2
7KR465-30	803	1850	0.5	0.0521	33.0	0.0044	1.8	0.06	28.1	0.5	51.6	16.6	1345.9	654.7	28.1	0.5
7KR465-20	2241	2365	0.3	0.0710	34.5	0.0045	3.6	0.10	28.8	1.0	69.6	23.2	1878.8	637.7	28.8	1.0
7KR465-1	172	1270	1.6	0.0503	24.9	0.0046	4.4	0.17	29.8	1.3	49.8	12.1	1164.1	492.3	29.8	1.3
7KR465-27	1439	15360	3.3	0.0513	3.7	0.0077	1.3	0.36	49.2	0.7	50.8	1.9	124.2	82.3	49.2	0.7
7KR465-18	2854	22405	1.4	0.0543	4.7	0.0082	1.4	0.29	52.7	0.7	53.7	2.5	96.4	106.1	52.7	0.7
7KR465-16	411	7975	1.7	0.0531	15.4	0.0084	3.7	0.24	54.2	2.0	52.5	7.9	-22.0	363.3	54.2	2.0
7KR465-29	223	2035	1.1	0.0815	19.3	0.0091	2.3	0.12	58.4	1.3	79.6	14.8	774.0	407.0	58.4	1.3
7KR465-17	3592	3520	5.2	0.0999	13.2	0.0095	8.2	0.62	60.9	5.0	96.7	12.2	1102.1	206.9	60.9	5.0
7KR465-10	148	5905	1.5	0.1327	23.3	0.0177	7.1	0.31	112.9	8.0	126.5	27.7	390.2	502.5	112.9	8.0

Notes:

1. All uncertainties are reported at the 1-sigma level, and include only measurement errors. Systematic uncertainties are included in the error bars.
2. U concentration and U/Th are calibrated relative to our Sri Lanka standard.
3. Common Pb correction is from 204Pb, with composition interpreted from Stacey and Kramers (1975) and uncertainties of ± 10%.
4. U/Pb and 206Pb/ 207Pb fractionation is calibrated relative to fragments of a large Sri Lankan zircon.
5. U decay constants and composition as follows: $238\text{U} = 9.8485 \times 10^{-10}$, $235\text{U} = 1.867 \times 10^{-10}$

8KR104-42	274	3166	0.9	0.0593	24.2	0.0081	4.3	0.18	52.1	2.2	58.5	13.7	326.7	547.0	52.1	2.2
8KR104-25	605	1532	0.7	0.0590	7.4	0.0081	1.6	0.21	52.2	0.8	58.2	4.2	311.2	165.5	52.2	0.8
8KR104-27	427	1966	0.7	0.0701	23.9	0.0081	1.9	0.08	52.3	1.0	68.8	15.9	689.2	514.4	52.3	1.0
8KR104-33	839	1754	0.8	0.0815	31.6	0.0082	1.2	0.04	52.4	0.6	79.6	24.2	999.3	657.2	52.4	0.6
8KR104-3	217	1138	1.0	0.0572	30.5	0.0082	1.9	0.06	52.9	1.0	56.5	16.7	212.2	719.7	52.9	1.0
8KR104-53	463	3296	1.1	0.0520	17.2	0.0082	6.5	0.38	52.9	3.4	51.5	8.6	-15.1	387.9	52.9	3.4
8KR104-45	309	1432	0.8	0.0522	20.0	0.0083	0.8	0.04	53.0	0.4	51.6	10.1	-11.1	486.9	53.0	0.4
8KR104-37	536	2910	0.7	0.0626	24.1	0.0083	5.1	0.21	53.2	2.7	61.6	14.4	403.2	534.1	53.2	2.7
8KR104-17	124	458	1.1	0.0754	25.4	0.0085	2.2	0.09	54.4	1.2	73.8	18.1	760.1	541.9	54.4	1.2
8KR104-38	1330	6812	0.9	0.0573	3.5	0.0085	0.5	0.14	54.4	0.3	56.6	1.9	148.5	81.2	54.4	0.3
8KR104-62	1343	650	0.8	0.0959	19.9	0.0085	2.9	0.15	54.5	1.6	93.0	17.7	1244.8	389.1	54.5	1.6
8KR104-49	918	3078	1.2	0.0552	10.0	0.0085	0.9	0.09	54.6	0.5	54.6	5.3	55.8	238.9	54.6	0.5
8KR104-31	209	886	1.1	0.1018	53.8	0.0085	0.7	0.01	54.8	0.4	98.4	50.5	1347.3	1127.2	54.8	0.4
8KR104-63	520	478	0.7	0.1108	20.3	0.0086	0.9	0.04	55.2	0.5	106.7	20.6	1497.5	388.4	55.2	0.5
8KR104-19	485	554	0.9	0.1032	12.3	0.0087	3.1	0.25	55.6	1.7	99.8	11.7	1346.8	230.8	55.6	1.7
8KR104-55	1525	474	1.4	0.1112	14.0	0.0090	1.1	0.08	58.0	0.7	107.1	14.2	1409.2	268.8	58.0	0.7
8KR104-65	284	224	1.1	0.1833	11.6	0.0092	1.2	0.10	58.9	0.7	170.9	18.2	2284.8	198.6	2284.8	198.6
8KR104-16	184	230	1.0	0.2179	51.3	0.0091	7.6	0.15	58.4	4.4	200.2	93.4	2594.4	917.2	2594.4	917.2

Notes:

1. All uncertainties are reported at the 1-sigma level, and include only measurement errors. Systematic errors would increase age uncertainties by 1-2%.
2. U concentration and U/Th are calibrated relative to our Sri Lanka standard zircon, and are accurate to ~20%.
3. Common Pb correction is from 204Pb, with composition interpreted from Stacey and Kramers (1975) and uncertainties of 1.5 for 206Pb/ 204Pb, 0.3 for 207Pb/204Pb, and 2.0 for 208Pb/204Pb.
4. U/Pb and 206Pb/ 207Pb fractionation is calibrated relative to fragments of a large Sri Lanka zircon of 563.5 ± 3.2 Ma (2-sigma).
5. U decay constants and composition as follows: $238U = 9.8485 \times 10^{-10}$, $235U = 1.55125 \times 10^{-10}$, $238U/ 235U = 137.88$