

Table S1. SIMS U-Th-Pb data from Lewisian granulites

Grain/ spot # ¹	Growth ²	CL char ³	Image ⁴	[U] ppm	[Th] ppm	[Pb] ppm	Th/U meas	²⁰⁶ Pb/ ²⁰⁴ Pb meas	f ₂₀₆ % ⁵	²⁰⁷ Pb/ ²⁰⁶ Pb	±σ	²⁰⁷ Pb/ ²³⁵ U	±σ	²⁰⁶ Pb/ ²³⁸ U	±σ	ρ	Disc. % conv.	Disc. % 2σ lim.	²⁰⁷ Pb/ ²³⁵ U	±σ	²⁰⁶ Pb/ ²³⁸ U	±σ	²⁰⁷ Pb/ ²⁰⁶ Pb	±σ
<i>Lew99-Ky (n2822⁶) - granulite facies tonalite, Kylestroma</i>																								
9c	r	B	9A	27.1	13.5	15.7	0.50	687	2.72	0.1605	1.22	9.22	2.79	0.4725	0.9769	0.35	13.3	1.6	2360	26	2494	20	2246	45
55	cs	D	3A	595.0	8.5	194.1	0.01	2870	0.65	0.1583	1.13	5.98	2.16	0.2819	1.8104	0.84	-37.2	-31.8	1973	19	1601	26	2390	20
30b	r	B	4A	18.0	7.4	10.6	0.41	1939	0.96	0.1635	1.31	10.12	1.97	0.4676	0.9901	0.50	2.5		2446	18	2473	20	2423	29
17b	r	B	6A	25.9	16.2	16.2	0.63	2049	0.91	0.1633	1.16	10.28	1.69	0.4746	0.9690	0.57	3.9		2460	16	2504	20	2425	23
54b	r	B	2A	28.8	21.0	18.4	0.73	1662	1.13	0.1649	1.08	10.36	1.55	0.4776	0.7509	0.48	4.5		2467	14	2517	16	2427	23
18a	r	B	6A	22.4	11.1	13.4	0.50	5248	0.36	0.1610	1.20	10.20	1.68	0.4664	1.0294	0.61	1.3		2453	16	2468	21	2440	22
10b	r	B	9A	14.9	10.1	9.2	0.67	1512	1.24	0.1670	1.50	10.10	2.11	0.4617	1.0090	0.48	0.3		2444	20	2447	21	2442	31
59	r	B	4B	24.3	19.3	15.8	0.79	2433	0.77	0.1643	1.16	10.46	1.54	0.4770	0.7823	0.51	3.4		2477	14	2514	16	2446	22
64	r	M	6C	25.3	19.6	16.0	0.77	1426	1.31	0.1687	1.19	10.26	1.70	0.4658	0.7741	0.46	0.6		2459	16	2465	16	2453	25
53	r	B	2A	23.3	11.9	14.0	0.51	4375	0.43	0.1631	1.20	10.16	1.50	0.4599	0.7482	0.50	-0.9		2449	14	2439	15	2457	22
26a	r	B	5A (partial)	11.7	8.9	7.5	0.76	1254	1.49	0.1704	1.63	10.47	2.45	0.4737	1.0938	0.45	2.0		2477	23	2500	23	2459	37
21b	r	B	6A	16.5	9.4	10.1	0.57	3947	0.47	0.1644	1.60	10.45	1.99	0.4702	0.9419	0.47	0.8		2476	19	2484	19	2468	29
51b	r	B	2A	18.6	8.3	10.9	0.45	2930	0.64	0.1657	1.34	10.26	1.77	0.4612	0.9247	0.52	-1.2		2459	16	2445	19	2470	25
27a	sp	B	4C	29.8	14.2	17.7	0.48	7382	0.25	0.1637	1.10	10.25	1.56	0.4588	1.0375	0.66	-2.0		2457	15	2434	21	2476	20
36a	cs	M	2A	26.3	23.1	17.3	0.88	12066	0.16	0.1631	1.11	10.44	1.51	0.4674	0.9911	0.65	-0.2		2475	14	2472	20	2477	19
28a	cs	M	4B	18.9	7.4	11.2	0.39	24695	(0.08)	0.1622	1.38	10.39	1.68	0.4646	0.9508	0.57	-0.9		2470	16	2460	19	2479	23
11a	r	B	9B	29.6	29.0	19.8	0.98	4039	0.46	0.1658	1.14	10.48	1.62	0.4674	1.0277	0.64	-0.6		2479	15	2472	21	2484	21
13b	c2	M	7A	47.7	37.7	32.3	0.79	3710	0.50	0.1664	0.83	11.06	1.33	0.4923	0.9671	0.73	4.6	0.2	2528	12	2581	21	2487	15
37b	r	B	2B	16.4	15.4	10.8	0.78	1354	1.38	0.1723	1.85	10.53	2.39	0.4685	0.9809	0.41	-0.5		2483	22	2477	20	2487	36
15a	r	B	7A	11.3	6.4	7.1	0.57	10159	(0.18)	0.1633	1.68	10.77	1.97	0.4785	1.0243	0.52	1.5		2504	18	2521	21	2490	28
29a	r	B	4B	21.3	10.7	13.3	0.50	6871	0.27	0.1653	1.19	10.86	1.60	0.4816	0.9863	0.62	2.0		2511	15	2534	21	2492	21
76b	r	B	3B (partial)	26.7	23.8	16.6	0.89	2281	0.82	0.1691	1.39	10.03	1.75	0.4448	0.6856	0.39	-5.8		2438	16	2372	14	2493	27
49b	r	B	2B	25.3	19.2	16.0	0.76	5666	0.33	0.1659	1.15	10.47	1.45	0.4639	0.7510	0.52	1.1		2477	13	2457	15	2494	21
1b (HF)	r	B	8A	19.9	15.4	13.3	0.78	18759	(0.10)	0.1643	1.39	10.95	1.73	0.4832	1.0301	0.59	2.0		2519	16	2541	22	2501	23
39a	sp	B	1B	27.4	11.8	16.0	0.43	4731	0.40	0.1671	1.10	10.33	1.53	0.4559	0.9751	0.64	-3.8		2465	14	2421	20	2501	20
46a	cs	M	1B	26.5	11.9	15.7	0.45	2717	0.69	0.1692	1.43	10.55	1.75	0.4650	0.8009	0.46	-2.0		2484	16	2462	16	2503	26
52	sp	B	2A	26.8	11.1	16.5	0.41	4769	0.39	0.1675	1.53	10.94	1.77	0.4812	0.7410	0.42	1.3		2518	17	2533	16	2506	27
13a	c1	D	7A	77.9	47.2	48.9	0.61	42026	(0.04)	0.1649	0.64	10.75	1.16	0.4729	0.9689	0.83	-0.5		2502	11	2496	20	2507	11
57b	r	B	4B	10.7	11.3	7.3	1.05	1721	1.09	0.1723	2.54	10.78	2.99	0.4740	0.7448	0.25	-0.3		2505	28	2501	15	2507	48
12c	r	B	7A	29.6	22.4	19.0	0.76	5339	0.35	0.1674	1.04	10.70	1.45	0.4705	0.9416	0.65	-1.0		2498	14	2486	19	2508	18
77b	r	B	4A	14.7	9.0	9.0	0.61	2911	0.64	0.1694	1.06	10.50	1.36	0.4612	0.6524	0.48	-3.0		2480	13	2445	13	2509	20
2	r	M	9A	29.1	12.5	17.6	0.43	35372	(0.05)	0.1653	1.32	10.73	1.65	0.4709	0.9827	0.60	-1.1		2500	15	2487	20	2511	22
3	sp	B	9A	21.9	9.9	13.4	0.45	5517	0.34	0.1678	1.15	10.87	1.58	0.4760	0.9867	0.62	-0.2		2512	15	2510	21	2513	21
75b	r	B	3A	25.7	13.9	15.6	0.54	27006	(0.07)	0.1656	0.93	10.59	1.19	0.4637	0.7434	0.62	-2.8		2488	11	2456	15	2514	16
20b	r	B	6A	17.3	18.5	11.6	1.07	13460	(0.14)	0.1657	1.37	10.50	1.67	0.4599	0.9430	0.57	-3.6		2480	16	2439	19	2514	23
67b	r	B	6B	17.1	7.6	10.6	0.44	2161	0.87	0.1716	1.76	11.09	2.10	0.4852	0.7838	0.37	1.6		2531	20	2550	17	2516	32
48	sp	B	2C	19.3	8.9	11.5	0.46	1046	1.79	0.1778	1.52	10.57	2.13	0.4621	0.7420	0.35	-3.2		2486	20	2449	15	2516	33
25a (HF-8)	sp	B	5A (partial)	29.7	10.8	17.7	0.36	2273	0.82	0.1717	1.15	10.81	1.63	0.4716	0.9648	0.59	-1.4		2507	15	2491	20	2520	22
6b	r	B	6B	15.2	11.6	9.8	0.76	2328	0.80	0.1725	1.41	10.81	1.90	0.4691	0.9713	0.51	-2.4		2507	18	2480	20	2529	27
5 (HF-3)	r	B	9A (partial)	21.7	9.8	13.5	0.45	20866	(0.09)	0.1672	1.18	11.09	1.56	0.4808	1.0245	0.66	0.0		2530	15	2531	21	2530	20
4a	cs	D	9B	22.9	11.0	14.8	0.48	10444	0.18	0.1695	1.41	11.52	1.74	0.4966	0.9813	0.56	2.8		2567	16	2599	21	2541	24
19a (HF-7)	sp	M	6A	32.5	25.1	22.2	0.77	(0.00)	0.1686	0.97	11.40	1.38	0.4905	0.9762	0.71	1.4		2557	13	2573	21	2544	16	
40c	cs	D	1C	64.8	37.8	39.6	0.58	53321	(0.04)	0.1687	0.70	10.73	1.21	0.4612	0.9908	0.82	-4.7	-1.3	2500	11	2445	20	2545	12
71b	r	B	1D	13.8	6.8	8.8	0.49	6702	0.28	0.1706	1.39	11.37	1.61	0.4886	0.7341	0.46	0.9		2554	15	2564	16	2545	24
73a	sp	M	2C	14.2	8.5	9.1	0.60	22971	(0.08)	0.1694	1.11	11.20	1.39	0.4795	0.8324	0.60	-1.3		2540	13	2525	17	2552	19
58a	r	B	4B	21.8	31.5	16.7	1.44	11042	(0.17)	0.1702	1.32	11.49	1.53	0.4897	0.7878	0.51	0.5		2564	14	2569	17	2559	22
34a	cs	M	3B (partial)	32.7	30.1	23.0	0.92	11710	0.16	0.1715	1.12	11.62	1.50	0.4948	0.9727	0.65	1.4		2575	14	2591	21	2562	19
44	cs	M	1A	15.4	15.7	11.1	1.02	683	2.74	0.1892	2.76	11.96	3.90	0.5076	1.0364	0.27	3.8		2602	37	2646	23	2567	62
68	cs	D	7A	61.9	52.2	42.9	0.84	10335	0.18	0.1724	0.68	11.63	1.04	0.4927	0.7615	0.74	0.6		2575	10	2583	16	2569	12
45c	r	B	1A	18.6	17.5	13.5	0.94	2156	0.87	0.1771	1.55	12.11	1.84	0.5126	0.7512	0.41	4.6		2613	17	2668	16	2571	28
67a	cs	D	6B	323.6	268.4	218.3	0.83	17575	0.11	0.1728	0.47	11.59	0.91	0.4884	0.7688	0.85	-0.7		2572	9	2564	16	2578	8
60a	cs	D	4A	449.1	285.8	287.8	0.64	31686	0.06	0.1730	0.62	11.39	0.97	0.4783	0.7423	0.77	-3.0	-0.1	2555	9	2520	16	2584	10
70b	r	B	2C	22.9	19.5	15.9	0.85	14034	(0.13)	0.1745	1.26	12.02	1.49	0.4996	0.7927	0.53	0.5		2606	14	2612	17	2601	21
33a	cs	D	3A	91.4	50.4	59.5	0.55	6012	0.31	0.1789	0.56	12.03	1.11	0.4933	0.9440	0.85	-1.8		2607	11	2585	20	2624	10
55b	r	B	3A	15.1	14.7	9.0	0.97	542	3.45	0.1988	3.00	10.58	4.79	0.4335	2.9512	0.62	-13.8		2487	45	2321	58	2625	61
46b	r	B	1B																					

Table S1. SIMS U-Th-Pb data from Lewisian granulites

Grain/ spot # ¹	Growth ²	CL char ³	Image ⁴	[U] ppm	[Th] ppm	[Pb] ppm	Th/U meas	²⁰⁶ Pb/ ²⁰⁴ Pb meas	f _{206%5}	²⁰⁷ Pb/ ²⁰⁶ Pb	±σ	²⁰⁷ Pb/ ²³⁵ U	±σ	²⁰⁶ Pb/ ²³⁸ U	±σ	ρ	Disc. % conv.	Disc. % 2σ lim.	²⁰⁷ Pb/ ²³⁵ U	±σ	²⁰⁶ Pb/ ²³⁸ U	±σ	²⁰⁷ Pb/ ²⁰⁶ Pb	±σ		
15b	c2	M	7A	37.4	93.4	36.2	2.49	3413	0.55	0.1872	0.93	13.24	1.39	0.5228	0.9730	0.70	1.1		2697	13	2711	22	2686	16		
45	c1	D	1A	136.5	149.5	99.6	1.09	7498	0.25	0.1856	0.98	12.31	1.37	0.4851	0.9364	0.68	-6.3	-1.9	2628	13	2550	20	2689	17		
9a	9a	D	9A	269.5	208.2	190.8	0.77	138188	0.01	0.1860	0.59	13.02	1.15	0.5080	0.9823	0.86	-2.6		2681	11	2648	21	2706	10		
18b	cs	M	6A	39.8	38.1	30.0	0.96	26515	(0.07)	0.1874	0.96	13.48	1.38	0.5218	0.9975	0.72	-0.6		2714	13	2707	22	2719	16		
4b	r	B	9B	199.0	175.3	151.4	0.88	33334	0.06	0.1879	0.41	13.79	1.03	0.5334	0.9415	0.91	1.6		2736	10	2756	21	2721	7		
37a	cs	D	2B	59.6	68.2	46.4	1.15	16526	0.11	0.1896	0.67	13.45	1.18	0.5165	0.9600	0.82	-2.1		2712	11	2685	21	2732	11		
17a	cs	D	6A	88.5	22.9	59.4	0.26	8363	0.22	0.1910	0.60	13.92	1.18	0.5325	1.0081	0.85	0.6		2744	11	2752	23	2738	10		
38a	cs	M	2C	48.4	66.6	40.1	1.38	60574	(0.03)	0.1915	1.18	13.96	1.52	0.5285	0.9569	0.63	-0.9		2747	14	2735	21	2755	19		
45b	c2	M	1A	66.2	10.5	40.9	0.16	36660	0.05	0.1919	1.08	13.18	1.54	0.4990	1.0871	0.71	-6.5	-1.8	2693	15	2610	23	2756	18		
56	cs	M	4B	22.5	15.0	16.9	0.67	12760	(0.15)	0.1929	1.34	14.50	1.54	0.5452	0.7753	0.50	1.7		2783	15	2805	18	2767	22		
10a (HF-4)	r	B	9A	25.5	32.7	21.0	1.28	10252	0.18	0.1946	1.65	14.20	1.95	0.5323	1.0004	0.51	-0.9		2763	19	2751	22	2772	27		
70a	cs	D	2C	154.3	61.2	107.4	0.40	20576	0.09	0.1947	0.76	14.36	1.01	0.5363	0.6664	0.66	-0.4		2774	10	2768	15	2778	12		
30a	cs	D	4A	149.8	123.9	114.4	0.83	6506	0.29	0.1974	0.63	14.53	1.15	0.5390	0.9489	0.83	-0.5		2785	11	2779	21	2790	10		
49a	cs	D	2B	116.6	77.1	85.9	0.66	13611	0.14	0.1967	0.75	14.42	1.07	0.5339	0.7611	0.71	-1.5		2778	10	2758	17	2792	12		
22a	cs	D	6B	170.6	111.6	124.3	0.65	24914	0.08	0.1965	0.48	14.37	1.06	0.5315	0.9475	0.89	-2.0		2774	10	2748	21	2794	8		
20a	cs	M	6A	74.2	46.6	53.6	0.63	21181	0.09	0.1967	0.58	14.32	1.11	0.5296	0.9424	0.85	-2.4		2771	11	2740	21	2794	10		
63	cs	M	6C	104.9	27.0	61.7	0.26	17624	0.11	0.1969	1.58	12.40	2.50	0.4585	1.9267	0.77	-15.5	-8.6	2635	24	2433	39	2795	26		
57a	cs	D	4B	50.6	35.1	38.1	0.69	10113	0.18	0.1976	1.27	14.73	1.49	0.5438	0.7444	0.50	0.1		2798	14	2799	17	2797	21		
50	sp	B	2B	22.7	8.5	15.7	0.38	4864	0.38	0.1990	2.08	14.48	2.26	0.5345	0.7500	0.33	-1.6		2782	22	2760	17	2797	34		
16a (HF-6)	cs	M	7B	51.1	44.1	39.6	0.86	23333	0.08	0.1975	0.69	14.76	1.19	0.5435	0.9653	0.81	-0.1		2800	11	2798	22	2801	11		
23a	cs	M	6C	37.3	29.3	28.5	0.78	21097	0.09	0.1982	1.29	14.80	1.61	0.5433	0.9522	0.59	-0.4		2803	15	2797	22	2806	21		
76a	cs	D	3A (partial)	58.4	99.7	52.8	1.71	51730	(0.04)	0.1984	0.75	15.01	1.09	0.5487	0.7928	0.73	0.3		2816	10	2820	18	2813	12		
75a	cs	D	3A	51.9	82.4	46.7	1.59	31009	0.06	0.1991	0.89	15.36	1.14	0.5604	0.7090	0.62	2.3		2838	11	2868	16	2816	15		
32a (HF-10)	cs	M	2B	41.1	34.1	32.0	0.83	62434	(0.03)	0.1989	2.18	15.00	2.39	0.5469	0.9852	0.41	-0.2		2815	23	2812	22	2817	35		
6b (HF-2)	cs	D	9B	101.1	29.0	71.4	0.29	37238	0.05	0.1995	0.84	15.21	1.20	0.5538	0.8537	0.71	1.0		2828	11	2841	20	2819	14		
12a	c1	D	7A	255.5	207.5	199.3	0.81	25280	0.07	0.1997	0.36	15.07	1.03	0.5487	0.9585	0.94	0.0		2820	10	2820	20	2820	6		
61a	cs	D	5A	383.8	311.1	273.8	0.81	16123	0.12	0.2008	0.27	14.00	0.81	0.5076	0.7628	0.94	-7.8	-6.0	2750	8	2646	17	2827	5		
1a (HF)	cs	D	8A	66.3	45.8	51.5	0.69	21281	0.09	0.2009	0.78	15.60	1.25	0.5648	0.9709	0.78	2.5		2853	12	2887	23	2829	13		
72a (HF)	cs	D	1D	384.6	287.7	299.2	0.75	38760	0.05	0.2007	0.79	15.44	1.06	0.5589	0.7079	0.67	1.4		2843	10	2862	16	2830	13		
66	sp/c	M	6B	20.9	8.9	14.5	0.43	7171	0.26	0.2023	3.71	14.47	3.83	0.5231	0.7472	0.20	-5.2		2781	37	2712	17	2832	60		
15c	c1	D	7A	274.9	371.2	240.7	1.35	51845	0.04	0.2017	0.39	15.62	1.02	0.5622	0.9409	0.92	1.7		2854	10	2876	22	2838	6		
47	cs	D	2C	232.1	89.2	160.7	0.38	12188	0.15	0.2033	1.18	14.71	1.42	0.5273	0.7755	0.55	-4.9	-0.1	2797	14	2730	17	2845	19		
35b (HF-11)	cs	D	2A	63.4	34.4	48.1	0.54	21894	0.09	0.2029	0.64	15.69	0.93	0.5624	0.6613	0.71	1.3		2858	9	2877	15	2846	11		
26b (HF-9)	cs	D	5A (partial)	344.1	96.4	252.2	0.28	43127	0.04	0.2029	0.83	16.14	1.54	0.5776	1.2984	0.84	4.0		2885	15	2939	31	2847	13		
40a	cs	D	1C	182.7	106.1	137.7	0.58	163480	(0.01)	0.2031	0.77	15.50	1.23	0.5535	0.9508	0.78	-0.5		2846	12	2840	22	2851	13		
58b	cs	D	4B	169.6	83.3	128.2	0.49	33564	0.06	0.2035	0.95	15.89	1.22	0.5674	0.7681	0.63	2.0		2870	12	2897	18	2852	15		
11b (HF)	cs	D	11b	305.0	234.0	244.4	0.77	4833	0.39	0.2060	0.47	15.97	1.06	0.5692	0.9436	0.89	2.2		2875	10	2905	22	2855	8		
41a (HF)	cs	D	1A	362.2	270.9	284.2	0.75	40905	0.05	0.2040	0.86	15.69	1.14	0.5584	0.7488	0.66	0.2		2858	11	2868	17	2856	14		
77a	cs	D	4A	64.0	102.4	59.6	1.60	17542	0.11	0.2050	0.86	16.26	1.51	0.5772	1.2347	0.82	3.3		2892	15	2937	29	2861	14		
7a (HF)	cs	D	9B	175.2	123.1	136.1	0.70	50515	0.04	0.2050	0.74	15.70	1.20	0.5560	0.9511	0.79	-0.6		2859	12	2850	22	2865	12		
71a (HF)	cs	D	1D	387.7	251.1	302.3	0.65	64459	0.03	0.2052	0.74	16.04	1.03	0.5674	0.7101	0.69	1.3		2879	10	2897	17	2867	12		
24a (HF)	cs	D	6B	55.3	33.2	42.7	0.60	9444	0.20	0.2082	0.83	16.06	1.28	0.5628	0.9633	0.75	-0.2		2880	12	2878	22	2882	14		
65b (HF)	cs	D	6B	97.9	110.6	85.1	1.13	4782	0.39	0.2100	0.64	16.37	1.11	0.5720	0.8617	0.78	1.3		2899	11	2916	20	2887	11		
21a (HF)	cs	M	6A	28.8	20.7	23.9	0.72	10032	0.19	0.2092	1.10	16.99	1.47	0.5921	0.9496	0.65	4.7		2934	14	2998	23	2890	18		
<i>Lew99-GE (n2821⁶) - granulite facies tonalite, Geodh Eanruig (Scouriemore)</i>																										
41b	r/c2	M	2A	10.8	9.2	6.7	0.86	1039	1.80	0.1625	1.79	9.66	2.67	0.4664	1.0538	0.39	6.1		2402	25	2468	22	2348	41		
46	r	B	5A	20.9	19.0	13.6	0.91	1360	1.37	0.1631	1.25	9.94	1.91	0.4688	0.8132	0.43	4.6		2429	18	2478	17	2388	29		
44a	r	B	5A	51.1	51.2	33.2	1.00	1737	1.08	0.1618	0.85	9.80	1.36	0.4601	0.8580	0.63	2.2		2416	13	2440	17	2396	18		
59	sp	B	8B	23.6	21.5	15.5	0.91	2838	0.66	0.1605	1.54	10.12	1.99	0.4702	0.9410	0.47	3.5		2446	19	2484	19	2413	30		
42	r	M	2A	30.0	27.4	19.3	0.91	1928	0.97	0.1637	1.08	10.06	1.56	0.4641	0.8132	0.52	1.6		2440	14	2458	17	2425	22		
37a	c	B	1A	17.1	1.7	9.9	0.10	1739	1.08	0.1653	1.49	10.88	1.98	0.4993	0.8155	0.41	8.8	0.9	2513	19	2611	18	2435	30		
52x	cz	M	6C	26.5	27.7	17.7	1.05	2007	0.93	0.1644	1.19	10.22	1.57	0.4687	0.7414	0.47	2.1		2455	15	2478	15	2436	23		
28b	r (osc)	M	2B	42.7	48.9	30.6	1.14	11767	0.16	0.1603	0.87	10.64	1.34	0.4846	0.9958	0.74	4.9	0.6	2492	13	2547	21	2448	15		
9b	c2	B	7B	27.0	15.4	17.1	0.57	4461	0.42	0.1625	1.96	10.73	2.30	0.4872	0.9222	0.40	5.3		2500	22	2559	20	2452	35		
26a	c2	M	4A	30.2	14.3	19.0	0.47	14813	0.13	0.1606	0.99	10.70	1.40	0.4856	0.9629	0.69	4.9	0.1	2497	13	2552	20	2453	17		
81b	r	B	5C	17.2	15.7	11.4	0.91	8757	0.21																	

Table S1. SIMS U-Th-Pb data from Lewisian granulites

Grain/ spot # ¹	Growth ²	CL char ³	Image ⁴	[U] ppm	[Th] ppm	[Pb] ppm	Th/U meas	²⁰⁶ Pb/ ²⁰⁴ Pb meas	f ₂₀₆ % ⁵	²⁰⁷ Pb/ ²⁰⁶ Pb	±σ	²⁰⁷ Pb/ ²³⁵ U	±σ	²⁰⁶ Pb/ ²³⁸ U	±σ	ρ	Disc. % conv.	Disc. % 2σ lim.	²⁰⁷ Pb/ ²³⁵ U	±σ	²⁰⁶ Pb/ ²³⁸ U	±σ	²⁰⁷ Pb/ ²⁰⁶ Pb	±σ
78	sp	M	5C	52.4	54.3	36.3	1.04	22109	0.08	0.1630	0.54	10.72	1.01	0.4787	0.8523	0.84	2.0	2499	9	2522	18	2481	9	
29a	r	M	2A	52.7	51.9	35.0	0.99	17454	0.11	0.1634	0.76	10.42	1.23	0.4646	0.9592	0.78	-1.2	2473	11	2460	20	2483	13	
75	sp	B	6C	21.2	19.4	14.3	0.91	18607	(0.10)	0.1627	0.84	10.64	1.10	0.4745	0.7055	0.64	1.0	2492	10	2503	15	2484	14	
17a	r	B	6B	23.8	21.3	16.0	0.89	13718	0.14	0.1637	1.11	10.66	1.51	0.4752	0.9794	0.65	1.1	2494	14	2507	20	2484	19	
65a	sp	M	6D	68.0	63.8	46.3	0.94	27138	0.07	0.1633	0.47	10.73	0.95	0.4778	0.8252	0.86	1.6	2500	9	2518	17	2485	8	
35b	cz	B	1A	11.8	23.9	9.7	2.02	3990	0.47	0.1661	2.19	10.81	2.54	0.4815	1.0343	0.41	2.3	2507	24	2534	22	2486	39	
34	sp	B	1A	35.3	36.3	23.8	1.03	8516	0.22	0.1644	1.02	10.46	1.44	0.4655	0.9672	0.67	-1.1	2476	13	2464	20	2487	18	
32b	r	M	1A	40.6	37.0	26.8	0.91	22902	(0.08)	0.1634	1.08	10.48	1.45	0.4651	0.9647	0.67	-1.4	2478	14	2462	20	2492	18	
13b	r	D	7A	105.7	105.7	72.6	1.00	41839	0.04	0.1638	0.52	10.75	1.10	0.4770	0.9630	0.88	1.1	2502	10	2514	20	2492	9	
83b	r	M	5B	24.1	25.5	16.7	1.06	13932	0.13	0.1645	0.81	10.75	1.07	0.4764	0.6639	0.62	0.9	2502	10	2512	14	2493	14	
33c	r	B	1A	32.1	28.0	21.3	0.87	7592	0.25	0.1654	1.22	10.56	1.58	0.4676	0.9439	0.60	-1.1	2485	15	2473	19	2495	21	
84c	c2	D	5B	69.2	81.1	48.1	1.17	43725	(0.04)	0.1639	0.59	10.52	0.90	0.4655	0.6875	0.76	-1.6	2482	8	2464	14	2496	10	
27b	r	B	4A	30.5	33.9	21.2	1.11	10060	0.19	0.1652	1.01	10.68	1.41	0.4727	0.9441	0.67	-0.1	2496	13	2495	20	2497	18	
77	sp	B	6B	14.8	11.2	9.8	0.75	21924	(0.09)	0.1642	1.00	10.93	1.26	0.4829	0.7754	0.61	2.0	2517	12	2540	16	2499	17	
65b	sp	M	6D	67.1	63.3	45.6	0.94	(0.00)	0.1642	0.50	10.76	1.25	0.4751	1.1397	0.91	0.3	2502	12	2506	24	2500	8		
47a	r/c2	M	5A	70.7	73.5	49.2	1.04	6237	0.30	0.1664	0.69	10.92	1.05	0.4817	0.7483	0.71	1.6	2516	10	2535	16	2501	12	
87a (HF-10)	c2/r	M	5A	9.0	8.2	6.1	0.91	3983	0.47	0.1675	1.36	10.83	1.67	0.4777	0.7391	0.44	0.8	2508	16	2517	15	2501	25	
83a	c/sp?	M	5B	53.3	57.6	36.6	1.08	9213	0.20	0.1657	0.54	10.66	0.99	0.4705	0.8201	0.82	-0.7	2494	9	2486	17	2501	9	
25b	c1	M	4A	20.7	18.3	13.7	0.88	9992	0.19	0.1657	1.23	10.63	1.71	0.4689	1.1325	0.66	-2.1	2491	16	2479	23	2502	21	
41a	c	D	2B	179.3	158.9	122.0	0.89	13830	0.14	0.1655	0.44	11.03	1.04	0.4858	0.9342	0.90	2.3	2525	10	2552	20	2504	8	
33b	r	B	1A	36.3	32.6	24.5	0.90	7831	0.24	0.1663	0.89	10.86	1.37	0.4780	0.9680	0.70	0.7	2511	13	2519	20	2505	16	
4	sp	B	8A	28.2	26.9	19.0	0.95	10798	0.17	0.1661	1.00	10.70	1.42	0.4706	0.9721	0.68	-1.0	2497	13	2486	20	2506	17	
80c	r	M	5C	63.5	61.3	45.2	0.96	33360	0.06	0.1654	1.13	11.34	1.73	0.4987	1.3116	0.76	4.9	2552	16	2608	28	2507	19	
84a	r	M	5B	218.4	301.0	161.5	1.38	80930	0.02	0.1652	0.27	10.86	0.87	0.4771	0.8233	0.95	0.3	2511	8	2515	17	2508	5	
16 (HF-5)	r	M	6B	71.4	73.9	49.6	1.04	51927	(0.04)	0.1652	0.64	10.88	1.16	0.4776	0.9723	0.84	0.4	2513	11	2517	20	2510	11	
32a	c1	M	1A	44.6	38.1	29.6	0.85	22719	0.08	0.1658	0.81	10.84	1.27	0.4757	0.9631	0.76	-0.1	2509	12	2508	20	2510	14	
11 (HF-2)	c	D	7A	159.8	212.7	121.8	1.33	35585	0.05	0.1656	0.42	11.28	1.04	0.4953	0.9447	0.91	4.0	2547	10	2593	20	2510	7	
80b	c2	M	5C	27.7	20.5	18.0	0.74	13767	0.14	0.1662	0.74	10.82	1.30	0.4747	1.0577	0.81	-0.3	2507	12	2504	22	2510	13	
73a	cz	M	6C	24.7	25.2	16.9	1.02	23651	(0.08)	0.1654	1.07	10.72	1.34	0.4703	0.8106	0.60	-1.3	2500	13	2485	17	2511	18	
35a	r	B	1A	18.5	15.3	12.1	0.83	12959	(0.14)	0.1656	1.28	10.69	1.62	0.4683	0.9938	0.61	-1.8	2497	15	2476	20	2514	21	
66b	r	M	6D	40.4	43.4	27.4	1.08	51187	(0.04)	0.1657	0.78	10.48	1.30	0.4586	1.0359	0.80	-3.9	2478	12	2433	21	2514	13	
63c	c2	D	7B	84.9	138.6	66.2	1.63	105997	(0.02)	0.1658	0.43	10.96	1.04	0.4792	0.9434	0.91	0.4	2519	10	2524	20	2516	7	
25a	c2	D	4A	151.6	170.0	105.4	1.12	42341	0.04	0.1663	0.65	10.79	1.16	0.4715	0.9582	0.83	-1.3	2505	11	2490	20	2517	11	
63b	r embays	B	7B	13.6	11.4	9.1	0.83	20499	(0.09)	0.1661	1.07	10.96	1.30	0.4786	0.7353	0.57	0.1	2520	12	2521	15	2518	18	
31b	r	B	2B	21.6	19.8	14.5	0.91	12302	(0.15)	0.1666	1.18	10.84	1.54	0.4719	0.9863	0.64	-1.5	2509	14	2492	20	2524	20	
73b	r	M	6C	27.0	27.5	18.9	1.02	16758	(0.11)	0.1666	0.78	11.06	1.13	0.4813	0.8166	0.73	0.4	2528	11	2533	17	2524	13	
24b	c	M	4A	80.7	31.3	49.6	0.39	56104	(0.03)	0.1667	0.44	11.08	0.83	0.4819	0.7091	0.85	0.5	2530	8	2536	15	2525	7	
30b	r/c2	M	2B	38.1	35.2	25.4	0.92	6842	0.27	0.1690	0.88	10.83	1.34	0.4700	0.9697	0.72	-2.2	2509	13	2484	20	2529	16	
5b	c1/c2 mix	M/D	8A	109.3	113.2	77.4	1.04	15524	0.12	0.1682	0.63	11.22	1.23	0.4862	1.0529	0.85	1.1	2541	12	2554	22	2531	11	
6b	r	D	8B	182.8	210.1	126.8	1.15	12738	0.15	0.1685	0.69	10.85	1.22	0.4696	1.0013	0.82	-2.4	2510	11	2482	21	2533	12	
5a	c1	M	8A	31.4	23.3	19.8	0.74	6875	0.27	0.1698	1.16	10.64	1.55	0.4596	0.9672	0.62	-4.7	2493	14	2438	20	2537	20	
62a	c	D	7B (partial)	168.9	219.1	122.0	1.30	6258	0.30	0.1702	0.73	11.24	1.20	0.4844	0.9225	0.77	0.3	2543	11	2547	19	2540	13	
19b	c1	M	5B	39.1	49.5	28.4	1.27	12086	0.15	0.1693	0.94	11.02	1.41	0.4750	1.0289	0.73	-1.6	2525	13	2505	21	2540	16	
48b	c2	M	6A	27.4	46.5	22.1	1.70	10618	0.18	0.1695	1.55	11.47	1.93	0.4942	1.1325	0.59	2.3	2562	18	2589	24	2541	26	
66a	c	M	6D	25.1	31.1	18.1	1.24	32910	(0.06)	0.1692	0.79	11.10	1.14	0.4760	0.8316	0.73	-1.9	2532	11	2510	17	2549	13	
55b	r	D	7A	131.9	134.4	95.7	1.02	34433	0.05	0.1696	0.78	11.70	1.14	0.5017	0.8264	0.73	3.4	2581	11	2621	18	2550	13	
22b	c1	D	5A	89.8	71.9	60.8	0.80	33669	0.06	0.1711	1.00	11.43	1.39	0.4855	0.9518	0.69	1.7	2559	13	2551	20	2565	17	
29c	c2	M	2B	34.4	37.8	25.1	1.10	7443	0.25	0.1729	0.90	11.75	1.45	0.4979	1.1105	0.79	0.8	2585	14	2605	24	2569	16	
33a	cz	M	1A	57.6	30.1	37.4	0.52	72137	(0.03)	0.1713	1.28	11.66	1.59	0.4938	0.9410	0.59	0.8	2578	15	2587	20	2571	21	
76	cz	M	6B	32.9	40.6	24.8	1.23	101739	(0.02)	0.1725	1.00	11.80	1.26	0.4962	0.7728	0.61	0.7	2589	12	2597	17	2582	17	
27a	cz	B	4A	14.7	56.5	15.5	3.84	3925	0.48	0.1758	1.38	11.33	1.84	0.4762	0.9799	0.53	-3.4	2551	17	2511	20	2583	26	
55x	cz	M	7A	14.9	15.8	11.0	1.06	1995	0.94	0.1791	1.44	12.32	1.84	0.5170	0.8178	0.44	4.8	2629	17	2686	18	2586	27	
5c	c2	D	8A	149.0	155.3	105.1	1.04	11742	0.16	0.1742	1.30	11.58	1.61	0.4851	0.9241	0.57	-1.8	2571	15	2550	19	2589	22	
3a	c	D	8A	167.1	191.0	124.9	1.14	31865	0.06	0.1737	0.95	11.98	1.37	0.5014	0.9829	0.72	1.4	2603	13	2620	21	2590	16	
81a	c	D	5C	198.0	151.2	133.8	0.76	26698	0.07	0.1741	0.32	11.70	0.98	0.4886	0.9316	0.95	-1.3	2581	9	2565	20	2593	5	
10a	c	B	7B	20.5	10.3	13.5	0.50	5619	0.33	0.1770	1.12	12.18	1.64	0.5054	1.1291	0.69	1.5	2618	15	2637	24	2604	20	
30a	r/c2	M	2B	12.4																				

Table S1. SIMS U-Th-Pb data from Lewisian granulites

Grain/ spot # ¹	Growth ²	CL char ³	Image ⁴	[U] ppm	[Th] ppm	[Pb] ppm	Th/U meas	²⁰⁶ Pb/ ²⁰⁴ Pb meas	f ₂₀₆ % ⁵	²⁰⁷ Pb/ ²⁰⁶ Pb	±σ	²⁰⁷ Pb/ ²³⁵ U	±σ	²⁰⁶ Pb/ ²³⁸ U	±σ	ρ	Disc. % conv.	Disc. % 2σ lim.	²⁰⁷ Pb/ ²³⁵ U	±σ	²⁰⁶ Pb/ ²³⁸ U	±σ	²⁰⁷ Pb/ ²⁰⁶ Pb	±σ
17b (HF-4)	cz	M	6B	137.4	105.7	99.2	0.77	16184	0.12	0.1805	0.69	12.88	1.22	0.5196	1.0059	0.82	2.2		2671	12	2698	22	2650	11
58	c	D	8B	131.4	129.4	97.0	0.98	33595	0.06	0.1806	1.25	12.72	1.95	0.5117	1.4982	0.77	0.4		2659	19	2664	33	2655	21
23	c	M	5A	43.3	43.3	31.7	1.00	19483	0.10	0.1810	2.04	12.55	2.30	0.5047	1.0166	0.44	-1.0		2646	22	2634	22	2656	34
21	c	M	5A	29.4	39.3	23.3	1.34	4305	0.43	0.1839	1.33	12.74	1.71	0.5103	0.9408	0.55	-0.2		2661	16	2658	21	2663	23
48x	c1	D	6A	146.0	16.6	91.4	0.11	20411	0.09	0.1819	0.44	12.85	0.87	0.5140	0.7411	0.85	0.4		2669	8	2674	16	2665	7
57x	c	D	7B	291.2	134.5	196.4	0.46	8978	0.21	0.1850	0.59	13.03	0.96	0.5146	0.7501	0.78	-0.4		2682	9	2676	16	2686	10
29b	c1	D	2B	158.3	213.8	129.0	1.35	52560	0.04	0.1847	0.88	13.34	1.29	0.5245	0.9481	0.73	1.1		2704	12	2718	21	2694	14
28a (HF-7b)	c	M	2B	27.2	39.2	21.8	1.44	9444	0.20	0.1865	1.52	12.97	1.82	0.5078	0.9424	0.52	-2.4		2677	17	2647	20	2700	25
44b	c2	B	5A	16.6	14.1	11.1	0.85	841	2.22	0.1998	3.08	12.46	3.87	0.4873	1.0375	0.27	-6.4		2639	37	2559	22	2702	60
69a	r (c2?)	M	6D	27.1	23.4	20.1	0.87	26888	{0.07}	0.1868	0.83	13.40	1.08	0.5202	0.6838	0.64	-0.6		2708	10	2700	15	2714	14
12b	c2	D	7B	156.9	134.6	114.8	0.86	36863	0.05	0.1874	0.58	13.23	1.14	0.5129	0.9788	0.86	-2.1		2696	11	2669	21	2717	10
60a	c1	D	8B	420.7	286.3	296.1	0.68	17982	0.10	0.1884	0.90	13.18	1.30	0.5093	0.9323	0.72	-3.1		2693	12	2654	20	2722	15
50x	c1	D	6A	170.0	123.6	125.7	0.73	12734	0.15	0.1901	1.05	13.85	1.36	0.5311	0.8499	0.63	0.5		2739	13	2746	19	2734	17
86	c	D	4A	89.5	60.3	64.2	0.67	34049	0.05	0.1895	1.00	13.65	1.32	0.5234	0.8486	0.64	-1.0		2726	13	2713	19	2735	16
7	c1, z	M	8A	59.9	24.9	41.9	0.42	81162	{0.02}	0.1905	1.09	14.05	1.44	0.5347	0.9417	0.65	0.7		2753	14	2761	21	2747	18
13a	cz	M	7A	30.9	15.3	22.0	0.49	7646	0.24	0.1929	0.90	14.04	1.35	0.5321	0.9882	0.72	-0.1		2752	13	2750	22	2753	15
63a	c1,z	D	7B	102.1	21.6	66.7	0.21	81427	{0.02}	0.1918	2.10	13.68	2.73	0.5171	1.7456	0.64	-3.1		2728	26	2687	38	2758	34
71b	c2,z	M	6D	61.2	39.5	44.0	0.64	31813	0.06	0.1923	0.57	13.96	0.96	0.5275	0.7726	0.80	-1.2		2747	9	2731	17	2758	9
79	cz	M	5C	24.3	12.4	17.7	0.51	13536	0.14	0.1929	0.97	14.51	1.19	0.5478	0.6637	0.56	2.5		2783	11	2816	15	2760	16
85	cz	M	5B	27.8	58.9	25.8	2.11	5396	0.35	0.1944	0.90	13.98	1.25	0.5276	0.8354	0.67	-1.3		2749	12	2731	19	2761	15
36a	cz	B	1A	49.5	50.5	36.3	1.02	7802	0.24	0.1937	0.96	13.46	1.46	0.5081	1.0739	0.74	-5.0	-0.6	2713	14	2648	23	2761	16
9	c (mix?)	D	7B	22.7	13.4	15.8	0.59	3253	0.57	0.1962	0.99	13.63	1.70	0.5136	1.2954	0.76	-4.0		2724	16	2672	28	2764	18
30c (HF-6)	c	D	2B	78.8	78.9	63.5	1.00	62054	{0.03}	0.1942	1.09	15.03	1.55	0.5614	1.0995	0.71	4.2		2817	15	2872	26	2778	18
16b	cz	D	6B	340.9	175.7	251.5	0.52	45800	0.04	0.1944	0.68	14.76	1.12	0.5513	0.8920	0.80	2.3		2800	11	2822	20	2778	11
38c	c3	M	1A	62.4	37.3	42.8	0.60	6416	0.29	0.1961	1.77	13.52	1.98	0.5050	0.8351	0.42	-6.3		2717	19	2635	18	2778	29
51x	c	M	6A	20.5	10.4	15.3	0.51	2135	0.88	0.1999	2.33	15.09	2.60	0.5632	0.8590	0.33	4.5		2821	25	2880	20	2779	40
12a	c1	D	7B	188.9	137.8	142.9	0.73	24646	0.08	0.1958	0.35	14.58	1.04	0.5416	0.9751	0.94	0.1		2788	10	2790	22	2787	6
53x	c	D	8A	164.6	166.5	130.4	1.01	27128	0.07	0.1959	0.40	14.49	0.87	0.5376	0.7694	0.89	-0.7		2782	8	2773	17	2789	7
38b	c2	M	1A	27.0	6.3	18.0	0.23	3060	0.61	0.2000	1.30	14.45	1.60	0.5342	0.7878	0.49	-1.5		2779	15	2759	18	2794	23
1 (HF-1)	c	D	8B	189.9	74.9	136.4	0.39	113342	0.02	0.1963	0.99	15.08	1.44	0.5575	1.0445	0.73	2.7		2820	14	2856	24	2795	16
56b	c2,z	M	7A	18.0	15.4	15.3	0.85	18539	{0.10}	0.1969	2.32	16.04	2.52	0.5910	0.9862	0.39	8.6		2879	24	2993	24	2801	37
26b	c1	M	4A	29.2	33.0	24.3	1.13	43748	{0.04}	0.1972	1.60	15.12	1.88	0.5561	0.9806	0.52	2.1		2823	18	2850	23	2803	26
64a	c1	D	7A	122.2	151.3	102.7	1.24	13796	0.14	0.1983	0.66	14.96	1.11	0.5496	0.8902	0.80	0.8		2813	11	2823	20	2805	11
18	cz	M	5B	26.1	32.5	22.2	1.25	13384	0.14	0.1993	1.97	15.20	2.22	0.5558	0.9852	0.44	1.6		2828	21	2849	23	2813	32
70	c	M	6D	28.3	36.1	24.9	1.28	29621	{0.06}	0.2002	0.63	15.67	1.05	0.5676	0.8367	0.80	3.1	0.0	2857	10	2898	20	2828	10
45b	c	D	5A	125.9	37.7	90.6	0.30	23114	0.08	0.2016	0.88	15.57	1.19	0.5616	0.7963	0.67	1.7		2851	11	2873	18	2835	14
15 (HF-9)	c	M	6B	45.1	58.6	40.3	1.30	15193	0.12	0.2023	1.04	15.96	1.42	0.5744	0.9482	0.67	3.8		2874	14	2926	22	2839	17
69b	cz	M	6D	97.5	93.1	83.8	0.96	38875	0.05	0.2020	1.41	16.31	1.67	0.5864	0.8890	0.53	5.9		2895	16	2975	21	2840	23
74	cz	B	6C	20.0	25.0	17.5	1.25	15195	0.12	0.2027	1.90	15.85	2.08	0.5692	0.8106	0.39	2.8		2868	20	2905	19	2842	31
14b (HF-3)	sp	D	6C	72.6	87.6	60.7	1.21	46422	0.04	0.2023	0.79	15.20	1.07	0.5457	0.7243	0.68	-1.5		2828	10	2807	17	2842	13
67b	c2,z	M	6D	56.5	88.7	51.4	1.57	29707	0.06	0.2026	1.16	15.49	1.40	0.5557	0.7775	0.55	0.2		2846	13	2849	18	2844	19
43b	c2,osc	M	4A	324.5	5.3	219.3	0.02	24664	0.08	0.2035	0.42	15.68	0.89	0.5603	0.7848	0.88	0.7		2858	9	2868	18	2851	7
64b	c2	D	7A	142.4	68.6	106.9	0.48	34344	0.05	0.2036	0.81	15.70	1.06	0.5604	0.6757	0.64	0.7		2859	10	2868	16	2852	13
47b	c1	M	5A	87.4	83.6	71.7	0.96	35113	0.05	0.2049	0.96	15.85	1.26	0.5618	0.8115	0.64	0.5		2868	12	2874	19	2863	16
82b	cz	D	5C	129.4	51.9	96.5	0.40	79425	0.02	0.2080	0.73	16.27	1.01	0.5677	0.6994	0.69	0.4		2893	10	2899	16	2889	12
49x (HF)	c1	M	6A	44.1	54.7	40.5	1.24	8308	0.23	0.2104	0.83	17.25	1.14	0.5986	0.7490	0.66	5.5	1.7	2949	11	3024	18	2898	14
84b (HF)	c1	B	5B	24.9	36.7	23.2	1.47	4493	0.42	0.2157	2.00	17.15	2.17	0.5837	0.7298	0.34	1.5		2943	21	2964	17	2929	33
43a	c1,osc	M	4A	107.3	50.4	84.5	0.47	21215	0.09	0.2154	1.01	17.40	1.27	0.5874	0.7502	0.59	1.5		2957	12	2979	18	2942	16
38a	c1	M	1A	40.5	11.4	28.9	0.28	2905	0.64	0.2192	1.47	16.54	1.71	0.5576	0.7409	0.43	-3.7		2909	17	2857	17	2945	25
61 (HF)	cz	M	8A	29.8	25.5	25.5	0.86	6470	0.29	0.2198	2.03	17.89	2.28	0.5950	0.9380	0.41	1.8		2984	22	3010	23	2966	33
31a (HF-8)	cz	M	2B	54.9	40.0	46.5	0.73	46591	{0.04}	0.2195	1.66	18.13	1.92	0.5988	0.9522	0.50	2.0		2996	19	3025	23	2977	27
72a (HF)	c1	M	6D	17.4	2.9	13.2	0.17	120767	{0.02}	0.2216	1.61	18.31	1.96	0.5992	1.1204	0.57	1.4		3006	19	3027	27	2992	26
24 (HF)	cz	D	4A	112.8	41.3	94.8	0.37	40620	0.05	0.2274	0.71	19.88	1.19	0.6349	0.9503	0.80	5.7	2.3	3086	12	3169	24	3032	11
71a (HF)	c1,z	M	6D	67.1	20.0	53.8	0.30	36910	0.05	0.2291	0.86	19.30	1.16	0.6118	0.7776	0.67	1.4		3057	11	3077	19	3043	14

Notes

¹ Text in parentheses indicates grains for which in situ Hf isotope measurements have been made (see Table S2); where this is accompanied by a number, this refers to concurrent Pb and Hf analysis numbering.

² Growth