

Kemp et al Table DR1

Grain/Spot	U ppm	Th ppm	Pb ppm	Th/U (atomic)	^{204}Pb ppb	$f_{^{206}\text{Pb}}$ (%)	Isotope ratios (common lead corrected)								Apparent ages (Ma)					
							$^{207}\text{Pb}/^{206}\text{Pb}$	\pm	$^{208}\text{Pb}/^{206}\text{Pb}$	\pm	$^{207}\text{Pb}/^{235}\text{U}$	\pm	$^{206}\text{Pb}/^{238}\text{U}$	\pm	Error correlation	$^{206}\text{Pb}/^{238}\text{U}$	\pm	$^{207}\text{Pb}/^{235}\text{U}$	\pm	$^{207}\text{Pb}/^{206}\text{Pb}$
Grt-opx tonalite HD23																				
23-1.1#*	110.7	20.2	0.3	0.19	15.499	0.0472	0.0211	Th Corrd	Th Corrd	0.0169	0.0076	0.00259	0.00010	0.09	16.7	0.7	17.0	7.5		
23-2.1	142.2	56.7	1.5	0.41	4.050	0.0375	0.0054	Th Corrd	Th Corrd	0.0543	0.0080	0.01050	0.00030	0.20	67.4	1.9	53.7	7.6		
23-2.2	83.7	19.0	0.3	0.23	20.398	0.0638	0.0266	Th Corrd	Th Corrd	0.0247	0.0104	0.00281	0.00011	0.09	18.1	0.7	24.8	10.2		
23-3.1	270.1	149.5	2.3	0.57	3.448	0.0517	0.0047	Th Corrd	Th Corrd	0.0564	0.0053	0.00792	0.00016	0.21	50.8	1.0	55.7	5.1		
23-4.1	126.9	29.2	0.3	0.24	10.454	0.0573	0.0117	Th Corrd	Th Corrd	0.0209	0.0043	0.00264	0.00009	0.17	17.0	0.6	21.0	4.3		
23-5.1	153.4	15.4	0.4	0.10	3.772	0.0453	0.0060	Th Corrd	Th Corrd	0.0175	0.0024	0.00280	0.00007	0.17	18.0	0.4	17.6	2.4		
23-6.1	746.7	497.2	2.5	0.68	0.840	0.0459	0.0020	Th Corrd	Th Corrd	0.0191	0.0009	0.00302	0.00004	0.31	19.4	0.3	19.2	0.9		
23-7.1	144.0	27.1	0.4	0.19	3.152	0.0484	0.0044	Th Corrd	Th Corrd	0.0198	0.0019	0.00297	0.00009	0.32	19.1	0.6	19.9	1.9		
23-8.2	183.7	30.2	0.5	0.17	2.112	0.0467	0.0044	Th Corrd	Th Corrd	0.0191	0.0017	0.00296	0.00009	0.32	19.1	0.5	19.2	1.7		
23-9.1	334.8	147.8	3.6	0.45	0.001	0.0503	0.0008	0.1493	0.0029	0.0715	0.0018	0.01031	0.00016	0.61	66.1	1.0	70.1	1.7		
23-9.2	115.9	19.9	0.3	0.18	4.773	0.0489	0.0047	Th Corrd	Th Corrd	0.0193	0.0019	0.00286	0.00007	0.26	18.4	0.5	19.4	1.9		
23-10.1	161.6	32.5	0.4	0.21	2.601	0.0389	0.0038	Th Corrd	Th Corrd	0.0149	0.0015	0.00279	0.00008	0.27	17.9	0.5	15.1	1.5		
23-11.1	340.3	177.4	3.4	0.53	0.288	0.0463	0.0011	Th Corrd	Th Corrd	0.0603	0.0018	0.00944	0.00014	0.49	60.6	0.9	59.4	1.7		
23-11.2	184.5	38.5	0.5	0.21	2.423	0.0439	0.0056	Th Corrd	Th Corrd	0.0178	0.0023	0.00294	0.00007	0.18	18.9	0.4	17.9	2.3		
23-12.1	196.3	27.8	0.6	0.15	1.915	0.0453	0.0041	Th Corrd	Th Corrd	0.0192	0.0018	0.00307	0.00009	0.29	19.8	0.6	19.3	1.8		
23-13.1# ^{GR}	202.0	90.5	0.8	0.46	1.055	0.0515	0.0032	Th Corrd	Th Corrd	0.0283	0.0019	0.00399	0.00007	0.28	25.7	0.5	28.4	1.9		
23-13.2	236.9	38.0	0.7	0.16	1.549	0.0469	0.0038	Th Corrd	Th Corrd	0.0191	0.0016	0.00296	0.00006	0.23	19.0	0.4	19.3	1.6		
23-14.1	1205.7	1362.5	17.3	1.16	4.617	0.698	0.0436	0.0007	0.3627	0.0106	0.0707	0.0017	0.01176	0.00015	0.54	75.4	1.0	69.4	1.6	
23-15.1	325.9	103.0	2.6	0.32	0.349	0.0476	0.0015	Th Corrd	Th Corrd	0.0519	0.0019	0.00792	0.00011	0.38	50.8	0.7	51.4	1.8		
23-16.1	178.4	40.6	0.5	0.23	2.434	0.0381	0.0047	Th Corrd	Th Corrd	0.0152	0.0019	0.00290	0.00008	0.21	18.7	0.5	15.4	1.9		
Grt-opx tonalite HD19																				
19-8.3	72.8	22.9	0.2	0.32	2.976	0.0533	0.0101	Th Corrd	Th Corrd	0.0213	0.0041	0.00290	0.00012	0.20	18.7	0.7	21.4	4.1		
19-10.2	62.2	17.6	0.2	0.29	4.538	0.0462	0.0082	Th Corrd	Th Corrd	0.0187	0.0034	0.00293	0.00012	0.22	18.9	0.7	18.8	3.4		
19-12.2	62.6	30.9	0.9	0.51	1.502	0.0447	0.0032	Th Corrd	Th Corrd	0.0814	0.0062	0.01320	0.00034	0.34	84.5	2.2	79.5	5.8		
19-13	448.6	431.9	3.2	0.99	0.001	0.0503	0.0017	0.3261	0.0046	0.0422	0.0016	0.00609	0.00008	0.34	39.1	0.5	42.0	1.6		
19-14.1	93.7	21.7	0.2	0.24	4.134	0.0439	0.0074	Th Corrd	Th Corrd	0.0178	0.0031	0.00295	0.00010	0.19	19.0	0.6	17.9	3.0		
19-14.2	24.6	38.0	0.9	1.59	1.238	0.0477	0.0036	Th Corrd	Th Corrd	0.1841	0.0143	0.02797	0.00048	0.22	177.8	3.0	171.6	12.2		
19-14.3	127.5	90.3	3.9	0.73	1.329	0.804	0.0455	0.0018	0.2234	0.0052	0.1742	0.0080	0.02777	0.00054	0.42	176.6	3.4	163.0	6.9	
19-15.1	121.1	67.5	0.8	0.57	1.141	0.0515	0.0033	Th Corrd	Th Corrd	0.0414	0.0028	0.00563	0.00010	0.25	37.5	0.6	41.2	2.7		
19-16.1	93.0	49.9	1.1	0.55	1.049	0.0480	0.0030	Th Corrd	Th Corrd	0.0711	0.0047	0.01076	0.00016	0.23	69.0	1.0	69.8	4.5		
19-17.1	353.8	208.6	4.4	0.60	0.564	0.299	0.0460	0.0007	0.1907	0.0032	0.0729	0.0018	0.01149	0.00016	0.57	73.7	1.0	71.5	1.7	
19-18.1	79.8	25.4	0.2	0.33	3.709	0.0432	0.0067	Th Corrd	Th Corrd	0.0174	0.0028	0.00292	0.00011	0.24	18.8	0.7	17.5	2.8		
19-19.1	219.8	118.5	1.9	0.55	0.587	0.0438	0.0018	Th Corrd	Th Corrd	0.0488	0.0033	0.00809	0.00041	0.76	52.0	2.6	48.4	3.1		
19-20.1	237.6	76.0	2.2	0.33	0.533	0.0430	0.0019	Th Corrd	Th Corrd	0.0551	0.0028	0.00928	0.00018	0.39	59.5	1.1	54.4	2.6		
19-21.1	173.8	116.8	1.6	0.69	1.025	0.0431	0.0028	Th Corrd	Th Corrd	0.0511	0.0034	0.00860	0.00014	0.25	55.2	0.9	50.6	3.3		
19-21.2	84.7	41.9	0.6	0.51	2.997	0.0312	0.0034	Th Corrd	Th Corrd	0.0284	0.0031	0.00662	0.00014	0.20	42.5	0.9	28.5	3.1		
19-21.3	73.0	23.3	0.2	0.33	3.206	0.0414	0.0070	Th Corrd	Th Corrd	0.0161	0.0028	0.00282	0.00008	0.18	18.1	0.5	16.2	2.7		
19-22	78.0	24.0	0.3	0.32	3.486	0.0477	0.0075	Th Corrd	Th Corrd	0.0213	0.0034	0.00323	0.00011	0.22	20.8	0.7	21.4	3.4		
19-23#	68.0	21.1	0.1	0.32	6.603	0.0386	0.0175	Th Corrd	Th Corrd	0.0126	0.0057	0.00236	0.00012	0.11	15.2	0.8	12.7	5.7		
19-24	185.4	119.4	1.6	0.66	0.934	0.0431	0.0024	Th Corrd	Th Corrd	0.0471	0.0028	0.00791	0.00013	0.28	50.8	0.8	46.7	2.7		
19-25	224.6	190.4	2.0	0.87	0.192	0.0518	0.0021	Th Corrd	Th Corrd	0.0560	0.0025	0.00784	0.00011	0.32	50.3	0.7	55.3	2.4		
19-26	123.3	100.1	1.2	0.83	0.771	0.0493	0.0032	Th Corrd	Th Corrd	0.0565	0.0040	0.00831	0.00021	0.36	53.4	1.3	55.8	3.8		
19-27	75.2	21.8	0.2	0.30	5.445	0.0410	0.0089	Th Corrd	Th Corrd	0.0162	0.0036	0.00286	0.00011	0.17	18.4	0.7	16.3	3.6		
19-28	69.5	19.7	0.2	0.29	5.149	0.0341	0.0084	Th Corrd	Th Corrd	0.0138	0.0034	0.00293	0.00008	0.12	18.9	0.5	13.9	3.4		
19-29	68.0	19.2	0.2	0.29	5.209	0.0328	0.0060	Th Corrd	Th Corrd	0.0130	0.0025	0.00288	0.00013	0.24	18.5	0.9	13.1	2.5		
19-30	488.0	195.3	3.9	0.41	0.636	0.355	0.0476	0.0017	0.1340	0.0027	0.0519	0.0021	0.00790	0.00013	0.39	50.7	0.8	51.4	2.1	
19-31.1	130.0	28.7	0.3	0.23	3.600	0.0278	0.0083	Th Corrd	Th Corrd	0.0103	0.0031	0.00268	0.00015	0.18	17.3	0.9	10.4	3.1		
19-32.1# ^{GR}	86.9	24.8	0.3	0.29	7.117	0.0784	0.0145	Th Corrd	Th Corrd	0.0370	0.0071	0.00342	0.00017	0.26	22.0	1.1	36.9	7.0		
19-33.1	101.2	26.4	0.3	0.27	5.766	0.0558	0.0122	Th Corrd	Th Corrd	0.0219	0.0049	0.00284	0.00015	0.23	18.3	1.0	22.0	4.9		
Grt-opx granulite enclave HD19e																				
19e-1.1	596.0	933.1	6.3	1.61	0.002	0.001	0.0494	0.0014	0.5158	0.0065	0.0533	0.0017	0.00782	0.00010	0.40	50.2	0.7	52.7	1.7	
19e-1.2	124.0	27.5	0.4	0.23	2.918	0.0344	0.0038	Th Corrd	Th Corrd	0.0150	0.0017	0.00316	0.00007							

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19-e2.2	65.7	18.2	0.2	0.28	3.835	0.0532	0.0076	Th Corrd	Th Corrd	0.0226	0.0033	0.00308	0.00010	0.23	19.9	0.7	22.7	3.3	
19-e2.3	427.1	361.3	26.5	0.87	0.728	0.068	0.0524	0.0007	0.2687	0.0029	0.3915	0.0086	0.05422	0.00069	0.58	340.4	4.2	335.5	6.2
19e-3.1	164.8	137.7	1.9	0.86	0.466	0.0491	0.0021	Th Corrd	Th Corrd	0.0670	0.0031	0.00991	0.00015	0.32	63.6	1.0	65.9	3.0	
19e-4.1	96.6	104.1	3.8	1.11	0.463	0.319	0.0529	0.0019	0.3451	0.0066	0.2359	0.0099	0.03235	0.00056	0.41	205.2	3.5	215.1	8.1
19e-5.1	375.6	438.3	23.7	1.20	0.002	0.000	0.0528	0.0005	0.3758	0.0030	0.3707	0.0074	0.05097	0.00067	0.66	320.5	4.1	320.2	5.5
19e-6.1	79.3	21.5	0.2	0.28	5.532	0.0357	0.0073	Th Corrd	Th Corrd	0.0148	0.0031	0.00301	0.00011	0.17	19.3	0.7	14.9	3.1	
19e-7.1	231.2	154.4	1.9	0.69	0.892	0.0453	0.0024	Th Corrd	Th Corrd	0.0463	0.0026	0.00741	0.00011	0.26	47.6	0.7	46.0	2.5	
19e-8.1	305.4	152.5	2.6	0.51	0.595	0.0453	0.0017	Th Corrd	Th Corrd	0.0507	0.0024	0.00812	0.00021	0.54	52.2	1.3	50.2	2.3	
19e-9.1	278.2	208.0	2.4	0.77	0.052	0.0477	0.0022	Th Corrd	Th Corrd	0.0500	0.0025	0.00761	0.00012	0.30	48.8	0.7	49.5	2.4	
19e-10.1	120.9	61.7	1.1	0.52	9.750	0.0426	0.0075	Th Corrd	Th Corrd	0.0519	0.0093	0.00883	0.00030	0.19	56.7	1.9	51.4	8.9	
19e-11.1	128.9	38.6	7.1	0.31	0.400	0.133	0.1743	0.0075	0.3673	0.0108	1.2074	0.0943	0.05025	0.00321	0.82	316.1	19.7	804.0	42.5
19e-11.2	552.7	210.3	267.5	0.39	0.830	0.008	0.1840	0.0027	0.1136	0.0013	10.9668	0.2805	0.43231	0.00704	0.64	2316.1	31.6	2520.3	23.5
19e-11.3	311.4	396.2	200.9	1.30	0.002	0.000	0.1903	0.0060	0.3391	0.0074	12.5965	0.5205	0.48014	0.00993	0.50	2527.9	43.1	2650.0	38.1
19e-12.1	1044.2	316.6	10.6	0.31	0.002	0.000	0.0476	0.0009	0.0994	0.0012	0.0674	0.018	0.01027	0.00015	0.53	65.9	0.9	66.3	1.7
19e-12.3	93.0	65.0	0.9	0.72	0.010	0.0506	0.0028	Th Corrd	Th Corrd	0.0625	0.0041	0.00896	0.00029	0.49	57.5	1.9	61.5	4.0	
19e-14.1	471.2	547.8	5.9	1.19	0.208	0.093	0.0488	0.0015	0.3830	0.0040	0.0687	0.0026	0.01020	0.00016	0.41	65.4	1.0	67.4	2.4
19e-15.1	221.3	121.2	1.9	0.56	0.272	0.0462	0.0025	Th Corrd	Th Corrd	0.0517	0.0031	0.00811	0.00016	0.33	52.1	1.0	51.2	3.0	
19e-16.1	589.2	247.0	4.7	0.43	0.002	0.001	0.0474	0.0015	0.1377	0.0025	0.0504	0.0020	0.00772	0.00014	0.46	49.6	0.9	50.0	1.9
19e-17.1	101.1	48.1	33.2	0.49	0.002	0.000	0.1156	0.0011	0.1394	0.0032	4.8091	0.1316	0.30177	0.00656	0.79	1700.1	32.4	1786.5	22.7
19e-18.1	776.3	717.0	307.2	0.95	0.002	0.000	0.1279	0.0034	0.2665	0.0028	5.7521	0.2014	0.32624	0.00601	0.53	1820.1	29.1	1939.2	29.8
19e-19.1	454.8	270.3	4.3	0.61	0.541	0.292	0.0469	0.0015	0.1950	0.0041	0.0568	0.0025	0.00878	0.00022	0.56	56.4	1.4	56.1	2.4
19e-20.1	112.5	25.3	0.3	0.23	3.753	0.0323	0.0111	Th Corrd	Th Corrd	0.0132	0.0046	0.0297	0.00009	0.09	19.1	0.6	13.4	4.6	
19e-21.1	151.0	74.2	1.1	0.50	0.970	0.0477	0.0033	Th Corrd	Th Corrd	0.0440	0.0033	0.00669	0.00016	0.33	43.0	1.0	43.7	3.2	
19e-22.1	202.1	144.7	1.3	0.73	0.480	0.0496	0.0028	Th Corrd	Th Corrd	0.0407	0.0025	0.00595	0.00011	0.30	38.2	0.7	40.5	2.5	
19e-23.1	174.0	176.7	1.7	1.04	0.379	0.0437	0.0021	Th Corrd	Th Corrd	0.0481	0.0028	0.00798	0.00021	0.46	51.2	1.4	47.7	2.7	
19e-24.1	258.0	188.0	2.6	0.75	0.010	0.0487	0.0016	Th Corrd	Th Corrd	0.0606	0.0027	0.00903	0.00022	0.55	57.9	1.4	59.7	2.6	

Opx-crd-ged granulite HB1

hb1-1 (<i>H</i> U corr)	4090.7	26.7	11.6	0.01	2.165	0.363	0.0465	0.0009	0.0004	0.0014	0.0191	0.0006	0.00299	0.00007	0.72	19.2	0.4	20.2	0.6
hb1-2 (<i>H</i> U corr)	9598.7	68.4	29.1	0.01	3.575	0.240	0.0466	0.0007	-0.0012	0.0002	0.0190	0.0004	0.00296	0.00003	0.51	18.7	0.2	21.6	0.4
hb1-3	285.9	16.4	0.8	0.06	2.150	0.0426	0.0039	Th Corrd	Th Corrd	0.0174	0.0016	0.00296	0.00007	0.23	19.0	0.4	17.5	1.6	
hb1-4	323.7	21.4	0.9	0.07	2.258	0.0432	0.0023	Th Corrd	Th Corrd	0.0177	0.0010	0.00297	0.00005	0.31	19.1	0.3	17.8	1.0	
hb1-5	543.3	86.1	4.8	0.16	4.179	1.742	0.0448	0.0031	0.1026	0.0083	0.0580	0.0041	0.00937	0.00015	0.22	60.1	0.9	57.2	3.9
hb1-6	194.3	34.1	0.5	0.18	5.364	0.0334	0.0048	Th Corrd	Th Corrd	0.0134	0.0019	0.0291	0.00005	0.13	18.8	0.4	13.5	1.9	
hb1-7	998.4	308.2	5.9	0.32	1.972	0.711	0.0433	0.0011	0.1465	0.0049	0.0356	0.0015	0.00598	0.00020	0.77	38.3	1.3	35.5	1.5
hb1-8	460.4	20.3	1.3	0.05	2.451	0.0467	0.0042	Th Corrd	Th Corrd	0.0189	0.0018	0.00294	0.00006	0.22	18.9	0.4	19.0	1.8	
hb1-9	1397.2	620.4	9.9	0.46	1.711	0.383	0.0482	0.0012	0.1511	0.0028	0.0457	0.0013	0.00688	0.00007	0.37	44.2	0.5	45.4	1.3

Grt-opx-crd granulite 4HB29

hb2-1	382.6	152.9	46.8	0.41	1.014	0.048	0.0655	0.0006	0.1236	0.0018	1.0711	0.0185	0.11868	0.00132	0.64	723.0	7.6	739.3	9.0
hb2-2	213.4	123.3	2.0	0.59	1.050	0.0463	0.0026	Th Corrd	Th Corrd	0.0564	0.0035	0.00882	0.00021	0.39	56.6	1.3	55.7	3.3	
hb2-3	438.2	187.7	3.5	0.44	1.106	0.697	0.0467	0.0014	0.1345	0.0036	0.0500	0.0017	0.00776	0.00011	0.42	49.9	0.7	49.5	1.6
hb2-4	535.6	6.5	1.5	0.01	0.761	0.0426	0.0034	Th Corrd	Th Corrd	0.0177	0.0014	0.00301	0.00004	0.16	19.4	0.2	17.8	1.4	
hb2-5	606.0	10.3	1.7	0.02	1.065	0.0427	0.0019	Th Corrd	Th Corrd	0.0183	0.0008	0.00312	0.00003	0.23	20.1	0.2	18.5	0.8	
hb2-6	676.0	11.0	1.9	0.02	0.866	0.0470	0.0025	Th Corrd	Th Corrd	0.0199	0.0011	0.00307	0.00005	0.28	19.7	0.3	20.0	1.1	
hb2-7	303.3	9.4	0.8	0.03	1.566	0.0454	0.0027	Th Corrd	Th Corrd	0.0178	0.011	0.00285	0.00005	0.27	18.4	0.3	18.0	1.1	
hb2-8	461.6	95.9	2.3	0.21	4.030	0.0159	0.0013	Th Corrd	Th Corrd	0.0113	0.0010	0.00514	0.00014	0.32	33.0	0.9	11.4	1.0	
hb2-9	567.2	9.0	1.5	0.02	0.906	0.0423	0.0019	Th Corrd	Th Corrd	0.0173	0.0009	0.00297	0.00006	0.37	19.1	0.4	17.4	0.9	
hb2-10	409.3	4.6	1.1	0.01	1.236	0.0450	0.0033	Th Corrd	Th Corrd	0.0182	0.0014	0.00293	0.00006	0.28	18.8	0.4	18.3	1.4	
hb2-11	534.0	7.6	1.6	0.01	0.672	0.0409	0.0023	Th Corrd	Th Corrd	0.0187	0.0012	0.00332	0.00008	0.39	21.4	0.5	18.8	1.2	
hb2-12	487.3	5.6	1.3	0.01	0.589	0.0499	0.0034	Th Corrd	Th Corrd	0.0199	0.0015	0.00290	0.00006	0.26	18.7	0.4	20.0	1.5	

Ampibolite HB2

hb2-1	93.2	11.9	0.2	0.13	2.807	0.0439	0.0045	Th Corrd	Th Corrd	0.0185	0.0020	0.00306	0.00006	0.19	19.7	0.4	18.6	1.9
hb2-2	101.2	13.2	0.3	0.13	3.120	0.0489												

Kemp et al Table DR1

hb2-8	116.4	22.2	0.3	0.20	3.202	0.0351	0.0055	Tb Corrd	Tb Corrd	0.0140	0.0022	0.00289	0.00005	0.12	18.6	0.3	14.1	2.2
hb2-9	109.8	24.5	0.3	0.23	2.701	0.0442	0.0022	Tb Corrd	Tb Corrd	0.0186	0.0011	0.00305	0.00010	0.55	19.6	0.7	18.7	1.1
hb2-10	85.7	13.0	0.3	0.16	3.659	0.0498	0.0065	Tb Corrd	Tb Corrd	0.0214	0.0029	0.00312	0.00010	0.24	20.1	0.6	21.5	2.9
hb2-11	73.5	9.7	0.2	0.14	4.995	0.0427	0.0080	Tb Corrd	Tb Corrd	0.0165	0.0032	0.00281	0.00009	0.17	18.1	0.6	16.6	3.2
hb2-12	93.0	12.3	0.3	0.14	3.577	0.0604	0.0068	Tb Corrd	Tb Corrd	0.0238	0.0028	0.00285	0.00008	0.24	18.4	0.5	23.8	2.7

Pyroxene gabbro P2

P2-1	428.8	146.0	1.3	0.35	0.569	0.0502	0.0021	Tb Corrd	Tb Corrd	0.0202	0.0010	0.00293	0.00006	0.40	18.8	0.4	20.3	1.0	
P2-1	770.3	309.8	2.3	0.41	0.258	0.0474	0.0014	Tb Corrd	Tb Corrd	0.0194	0.0007	0.00297	0.00004	0.43	19.1	0.3	19.5	0.7	
P2-2	477.0	188.2	1.4	0.40	0.747	0.0437	0.0019	Tb Corrd	Tb Corrd	0.0170	0.0008	0.00282	0.00005	0.37	18.1	0.3	17.1	0.8	
P2-2	753.0	277.4	2.2	0.38	0.395	0.0453	0.0017	Tb Corrd	Tb Corrd	0.0183	0.0007	0.00292	0.00004	0.31	18.8	0.2	18.4	0.7	
P2-3	573.3	264.6	1.7	0.47	0.780	0.0404	0.0017	Tb Corrd	Tb Corrd	0.0160	0.0007	0.00287	0.00004	0.31	18.5	0.3	16.1	0.7	
P2-3	251.7	118.0	0.7	0.48	1.655	0.0367	0.0046	Tb Corrd	Tb Corrd	0.0139	0.0018	0.00274	0.00005	0.13	17.6	0.3	14.0	1.8	
P2-4	1349.7	673.4	4.0	0.51	1.083	0.601	0.0458	0.0015	0.1553	0.0034	0.0181	0.0007	0.00287	0.00005	0.44	18.5	0.3	18.2	0.7
P2-5	229.8	83.2	0.7	0.37	1.240	0.0454	0.0036	Tb Corrd	Tb Corrd	0.0178	0.0015	0.00285	0.00007	0.28	18.3	0.4	17.9	1.5	
P2-6	210.8	57.5	0.6	0.28	1.644	0.0452	0.0039	Tb Corrd	Tb Corrd	0.0175	0.0016	0.00282	0.00007	0.28	18.1	0.5	17.7	1.6	
P2-7	320.0	145.7	1.0	0.47	0.657	0.0435	0.0028	Tb Corrd	Tb Corrd	0.0177	0.0012	0.00295	0.00006	0.28	19.0	0.4	17.8	1.2	
P2-8	233.2	80.1	0.7	0.35	0.567	0.0469	0.0029	Tb Corrd	Tb Corrd	0.0184	0.0012	0.00285	0.00006	0.32	18.3	0.4	18.5	1.2	

Hornblende-opx tonalite HD22

22-1.1	226.5	120.9	1.4	0.55	0.539	0.0471	0.0021	Tb Corrd	Tb Corrd	0.0390	0.0019	0.00601	0.00010	0.35	38.6	0.7	38.9	1.9
22-1.2	111.8	33.9	0.6	0.31	2.352	0.0411	0.0031	Tb Corrd	Tb Corrd	0.0319	0.0025	0.00563	0.00014	0.31	36.2	0.9	31.9	2.5
22-1.3	172.5	80.4	1.0	0.48	1.545	0.0418	0.0027	Tb Corrd	Tb Corrd	0.0333	0.0023	0.00579	0.00011	0.27	37.2	0.7	33.3	2.3
22-1.4	191.7	85.1	1.2	0.46	0.644	0.0467	0.0024	Tb Corrd	Tb Corrd	0.0375	0.0021	0.00583	0.00010	0.32	37.4	0.7	37.4	2.0
22-1.5	307.0	81.8	1.8	0.27	0.410	0.0451	0.0012	Tb Corrd	Tb Corrd	0.0376	0.0013	0.00606	0.00010	0.49	38.9	0.7	37.5	1.3
22-1.6	78.8	22.8	0.5	0.30	0.996	0.0459	0.0035	Tb Corrd	Tb Corrd	0.0381	0.0031	0.00601	0.00014	0.30	38.6	0.9	37.9	3.0
22-1.7	97.3	35.0	0.6	0.37	2.327	0.0513	0.0057	Tb Corrd	Tb Corrd	0.0404	0.0046	0.00572	0.00011	0.17	36.8	0.7	40.2	4.5
22-1.8	226.0	114.1	1.4	0.52	1.233	0.0439	0.0023	Tb Corrd	Tb Corrd	0.0347	0.0020	0.00573	0.00010	0.29	36.8	0.6	34.6	1.9
22-1.9	212.8	101.6	1.3	0.49	0.401	0.0455	0.0021	Tb Corrd	Tb Corrd	0.0368	0.0020	0.00586	0.00013	0.42	37.7	0.8	36.7	1.9
22-1.10	268.9	96.1	1.5	0.37	0.879	0.0429	0.0021	Tb Corrd	Tb Corrd	0.0336	0.0019	0.00569	0.00010	0.33	36.5	0.7	33.6	1.8
22-1.11	210.3	65.8	1.2	0.32	0.303	0.0442	0.0017	Tb Corrd	Tb Corrd	0.0360	0.0016	0.00591	0.00010	0.38	38.0	0.7	35.9	1.6

Second session

22-2.1#	171.1	50.4	0.9	0.30	0.395	0.0493	0.0022	Tb Corrd	Tb Corrd	0.0369	0.0021	0.00543	0.00015	0.47	34.9	0.9	36.8	2.1
22-2.2	236.0	98.0	1.4	0.43	0.452	0.0423	0.0010	Tb Corrd	Tb Corrd	0.0338	0.0010	0.00580	0.00008	0.46	37.3	0.5	33.8	1.0
22-2.3	237.1	101.6	1.4	0.44	0.108	0.0482	0.0013	Tb Corrd	Tb Corrd	0.0384	0.0013	0.00579	0.00008	0.42	37.2	0.5	38.3	1.2
22-2.4	177.2	67.1	1.0	0.39	0.487	0.0432	0.0014	Tb Corrd	Tb Corrd	0.0342	0.0013	0.00575	0.00009	0.42	37.0	0.6	34.2	1.3
22-2.5	225.8	98.8	1.3	0.45	0.303	0.0451	0.0016	Tb Corrd	Tb Corrd	0.0360	0.0015	0.00579	0.00009	0.37	37.2	0.6	35.9	1.4
22-2.6	274.5	116.3	1.6	0.43	0.518	0.0422	0.0014	Tb Corrd	Tb Corrd	0.0341	0.0016	0.00586	0.00014	0.52	37.6	0.9	34.1	1.6
22-2.7	159.2	57.5	0.9	0.37	0.639	0.0446	0.0024	Tb Corrd	Tb Corrd	0.0353	0.0023	0.00575	0.00018	0.46	36.9	1.1	35.2	2.3

Hornblende granite HD14

14-1.1	104.1	38.1	0.6	0.38	1.733	0.0469	0.0028	Tb Corrd	Tb Corrd	0.0370	0.0024	0.00571	0.00012	0.32	36.7	0.7	36.8	2.3	
14-1.2	223.8	66.1	1.3	0.30	0.390	0.0465	0.0021	Tb Corrd	Tb Corrd	0.0377	0.0019	0.00588	0.00011	0.38	37.8	0.7	37.6	1.9	
14-1.3	220.1	61.8	1.3	0.29	0.601	0.0461	0.0023	Tb Corrd	Tb Corrd	0.0370	0.0021	0.00582	0.00012	0.37	37.4	0.8	36.9	2.1	
14-1.4	259.6	96.4	1.5	0.38	1.120	0.0444	0.0018	Tb Corrd	Tb Corrd	0.0352	0.0017	0.00575	0.00011	0.39	36.9	0.7	35.1	1.6	
14-1.5	206.9	69.6	1.2	0.34	1.072	0.0440	0.0024	Tb Corrd	Tb Corrd	0.0348	0.0021	0.00573	0.00012	0.34	36.8	0.7	34.7	2.0	
14-1.6	366.0	121.9	2.1	0.34	0.711	0.0464	0.0018	Tb Corrd	Tb Corrd	0.0371	0.0017	0.00580	0.00011	0.42	37.3	0.7	36.9	1.6	
14-1.7	335.6	147.8	2.0	0.45	0.595	0.0450	0.0015	Tb Corrd	Tb Corrd	0.0364	0.0015	0.00586	0.00011	0.44	37.7	0.7	36.3	1.5	
14-1.8	497.3	139.3	2.9	0.29	0.395	0.287	0.0526	0.0020	0.0945	0.0026	0.0433	0.0019	0.00597	0.00010	0.39	38.4	0.7	43.0	1.9

Zircon FC1

fc1.1	253.2	136.2	51.3	0.55	0.714	0.032	0.0762	0.0005	0.1667	0.0008	1.9791	0.0347	0.18837	0.00218	0.66	1112.6	11.8	1108.4	11.8	1100	14
fc1.2	266.2	142.5	52.4	0.55	0.746	0.033	0.0761	0.0005	0.1648	0.0005	1.9243	0.0327	0.18288	0.00208	0.67	1084.9	11.3	1089.6	11.3	1098	13
fc1.3	298.3	161.9	59.6	0.56	0.377	0.015	0.0763	0.0004	0.1694	0.0009	1.9516	0.0329	0.18592	0.00212	0.68	1097.6	11.5	1099.0	11.3	1101</	

Kemp et al Table DR1

Second session		Kemp et al Table DR1																			
fc1.1	308.8	186.5	62.4	0.62	0.001	0.000	0.0759	0.0004	0.1864	0.0007	1.9362	0.0306	0.18491	0.00199	0.68	1093.8	10.8	1093.7	10.5	1093	9
fc1.2	319.8	190.6	64.2	0.61	0.648	0.024	0.0766	0.0003	0.1846	0.0006	1.9439	0.0309	0.18402	0.00201	0.69	1088.9	10.9	1096.3	10.6	1111	9
fc1.3	285.6	173.4	57.5	0.62	0.001	0.000	0.0764	0.0003	0.1874	0.0008	1.9394	0.0307	0.18416	0.00202	0.69	1089.7	11.0	1094.8	10.5	1104	9
fc1.4	283.0	171.4	57.2	0.62	0.286	0.012	0.0758	0.0004	0.1865	0.0007	1.9322	0.0308	0.18486	0.00203	0.69	1093.5	11.0	1092.3	10.6	1089	10

Zircon TEMORA 2

temora2.1	182.0	105.2	13.2	0.59	1.457	0.256	0.0531	0.0006	0.1795	0.0020	0.4945	0.0100	0.06749	0.00081	0.59	421.0	4.9	408.0	6.8	334	27
temora2.2	123.7	61.8	8.9	0.51	0.001	0.000	0.0549	0.0006	0.1589	0.0012	0.5160	0.0103	0.06612	0.00087	0.64	424.8	5.2	422.5	6.9	409	24
temora2.3	176.0	47.4	11.4	0.28	0.912	0.171	0.0547	0.0007	0.0863	0.0010	0.4945	0.0105	0.06557	0.00083	0.59	409.4	5.0	408.0	7.1	399	30
temora2.4	123.3	39.0	8.0	0.32	0.627	0.168	0.0553	0.0009	0.1022	0.0011	0.4960	0.0113	0.06508	0.00077	0.52	406.4	4.7	409.0	7.7	423	35
temora2.5	164.8	48.4	11.1	0.30	0.595	0.115	0.0551	0.0010	0.0918	0.0012	0.5131	0.0124	0.06755	0.00083	0.51	421.4	5.0	420.5	8.3	415	39
temora2.6	88.3	23.4	5.8	0.27	0.157	0.058	0.0561	0.0010	0.0879	0.0014	0.5160	0.0124	0.06665	0.00080	0.50	415.9	4.9	422.5	8.3	458	39
temora2.7	105.1	33.5	7.1	0.33	0.727	0.222	0.0532	0.0010	0.1003	0.0015	0.4926	0.0127	0.06718	0.00085	0.49	419.2	5.2	406.7	8.6	336	44
temora2.8	162.9	46.1	10.7	0.29	1.514	0.301	0.0531	0.0007	0.0856	0.0011	0.4861	0.0104	0.06644	0.00081	0.57	414.7	4.9	402.2	7.1	331	31
temora2.9	100.8	36.2	6.9	0.37	0.600	0.189	0.0543	0.0014	0.1123	0.0013	0.5087	0.0155	0.06793	0.00092	0.44	423.7	5.5	417.6	10.4	384	55
temora2.10	137.8	64.8	9.7	0.48	1.702	0.396	0.0544	0.0011	0.1458	0.0018	0.5038	0.0130	0.06717	0.00086	0.49	419.1	5.2	414.3	8.8	387	44
temora2.11	157.6	73.3	10.9	0.48	0.509	0.105	0.0562	0.0007	0.1487	0.0023	0.5123	0.0107	0.06615	0.00082	0.60	412.9	5.0	420.0	7.2	458	28
temora2.12	142.6	66.5	9.9	0.48	0.850	0.193	0.0551	0.0009	0.1486	0.0021	0.5052	0.0115	0.06649	0.00077	0.51	415.0	4.7	415.2	7.7	416	36
temora2.13	101.8	31.8	6.8	0.33	1.121	0.354	0.0542	0.0014	0.0948	0.0018	0.4996	0.0136	0.06691	0.00082	0.45	417.5	4.9	411.5	9.1	377	48
temora2.14	92.8	29.2	6.3	0.32	1.145	0.390	0.0531	0.0011	0.0942	0.0020	0.4979	0.0138	0.06807	0.00092	0.49	424.5	5.6	410.3	9.3	331	48
temora2.15	86.8	29.6	5.8	0.35	0.002	0.001	0.0567	0.0014	0.1121	0.0015	0.5197	0.0162	0.06648	0.00090	0.43	414.9	5.4	424.9	10.8	479	55
temora2.16	74.4	26.1	4.8	0.36	0.630	0.284	0.0552	0.0016	0.1098	0.0019	0.4893	0.0171	0.06429	0.00088	0.39	401.6	5.3	404.5	11.6	420	65
temora2.17	83.2	27.9	5.7	0.34	0.002	0.001	0.0561	0.0016	0.1116	0.0016	0.5221	0.0180	0.06747	0.00095	0.41	420.9	5.7	426.6	11.9	457	62
temora2.18	121.3	38.1	8.1	0.32	0.165	0.044	0.0552	0.0013	0.1008	0.0015	0.5098	0.0147	0.06693	0.00090	0.47	417.6	5.5	418.2	9.9	421	50
temora2.19	157.7	76.2	11.1	0.50	0.948	0.192	0.0527	0.0008	0.1523	0.0013	0.4898	0.0107	0.06739	0.00081	0.55	420.4	4.9	404.8	7.3	316	33
temora2.20	104.0	40.8	7.2	0.40	0.002	0.000	0.0549	0.0015	0.1219	0.0016	0.5144	0.0160	0.06790	0.00078	0.37	423.5	4.7	421.4	10.7	409	59
temora2.21	146.8	40.9	9.9	0.29	0.196	0.043	0.0571	0.0011	0.0889	0.0012	0.5320	0.0138	0.06763	0.00084	0.48	421.9	5.0	433.2	9.1	493	43
temora2.22	144.0	43.5	9.7	0.31	0.660	0.147	0.0553	0.0008	0.0965	0.0013	0.5134	0.0110	0.06738	0.00084	0.58	420.4	5.1	420.7	7.4	422	30
temora2.23	158.3	73.0	11.1	0.47	0.002	0.000	0.0543	0.0006	0.1476	0.0009	0.5072	0.0101	0.06768	0.00081	0.60	422.2	4.9	416.6	6.8	385	26
temora2.24	95.0	25.0	6.2	0.27	0.591	0.201	0.0535	0.0008	0.0867	0.0012	0.4924	0.0113	0.06671	0.00083	0.55	416.3	5.0	406.6	7.6	351	35
temora2.25	88.3	22.4	5.9	0.26	0.172	0.062	0.0572	0.0016	0.0802	0.0015	0.5366	0.0180	0.06804	0.00100	0.44	424.3	6.0	436.2	11.8	499	61
temora2.26	197.3	125.0	14.5	0.65	0.403	0.065	0.0547	0.0009	0.2053	0.0015	0.5087	0.0118	0.06743	0.00081	0.52	420.7	4.9	417.6	7.9	400	37
temora2.27	178.8	48.7	11.9	0.28	0.002	0.000	0.0544	0.0010	0.0881	0.0009	0.5060	0.0121	0.06745	0.00078	0.48	420.8	4.7	415.8	8.1	388	39
temora2.28	251.0	70.7	16.5	0.29	0.155	0.020	0.0545	0.0007	0.0902	0.0008	0.4987	0.0100	0.06639	0.00076	0.57	414.4	4.6	410.8	6.7	390	28
temora2.29	179.1	108.7	12.9	0.62	0.001	0.000	0.0560	0.0007	0.1974	0.0020	0.5125	0.0104	0.06634	0.00083	0.62	414.1	5.0	420.2	7.0	453	26
temora2.30	179.5	50.1	11.5	0.29	0.695	0.129	0.0551	0.0007	0.0887	0.0015	0.4918	0.0102	0.06479	0.00080	0.59	404.7	4.8	406.1	6.9	414	28
temora2.31	136.7	73.7	10.0	0.55	0.002	0.001	0.0562	0.0008	0.1788	0.0021	0.5319	0.0109	0.06863	0.00086	0.61	427.9	5.2	433.1	7.2	460	30
temora2.32	128.7	67.9	9.2	0.54	0.231	0.057	0.0555	0.0011	0.1736	0.0032	0.5191	0.0130	0.06783	0.00076	0.45	423.1	4.6	424.5	8.6	432	45
temora2.33	189.4	48.7	12.8	0.26	0.002	0.000	0.0570	0.0007	0.0853	0.0010	0.5394	0.0106	0.06867	0.00080	0.58	428.1	4.8	438.0	6.9	490	28
temora2.34	158.2	45.1	10.6	0.29	0.002	0.000	0.0559	0.0009	0.0943	0.0013	0.5194	0.0110	0.06745	0.00067	0.46	420.8	4.0	424.8	7.4	446	36
temora2.35	111.6	35.4	7.3	0.33	1.183	0.347	0.0530	0.0016	0.0939	0.0029	0.4814	0.0187	0.06583	0.00141	0.55	411.0	8.5	399.0	12.8	330	66
temora2.36	142.9	65.4	9.9	0.47	0.702	0.158	0.0552	0.0011	0.1445	0.0012	0.5093	0.0145	0.06690	0.00108	0.57	417.4	6.5	418.0	9.7	421	42
temora2.37	102.7	31.0	6.9	0.31	0.003	0.001	0.0584	0.0014	0.1001	0.0027	0.5408	0.0182	0.06718	0.00124	0.55	419.1	7.5	439.0	11.9	544	50

Table DR1. Ion microprobe U-Th-Pb isotope data for zircons from the Hidaka Metamorphic Belt samples and zircon standards Temora-2 and FC1. Analytical uncertainties are reported at 1 sigma. $^{207}\text{Pb}/^{206}\text{Pb}$ ages are only given for grains with $^{206}\text{Pb}/^{238}\text{U}$ ages >200 Myr.

analysis excluded from age calculations

* analysis regarded as suspect due to proximity to edge of sample holder

** analysis overlapped the core-rim interface

(HiU corr) Pb/U isotope ratios and ages have been adjusted slightly to correct for high U contents

Data repository Item

Linking granulites, silicic magmatism and crustal growth in arcs: ion microprobe (zircon) U-Pb ages from the Hidaka Metamorphic Belt, Japan

The U-Pb isotope data (Table DR1) were obtained with a Cameca ims 1270 ion microprobe housed in the School of Geosciences, University of Edinburgh. Operating conditions and analytical protocols are as described by Hinton et al. (2006). Each analysis was about 28 minutes in duration (including a preliminary 2 minute, 15 μm raster across the analysis site) and employed a 4 nA primary O₂- ion beam current and Kohler illumination to produce a spot approximately 20 μm in diameter on the sample. O₂ flooding was used to enhance the Pb ion yield by a factor of two. Isotope ratios were measured over 20 cycles, the first five being rejected to minimize surficial common lead contamination. The Pb/U calibration was performed relative to the Geostandards zircon 91500, which was analysed after 3-4 analyses of sample zircons. Fifty analyses of 91500 yielded a $^{207}\text{Pb}/^{206}\text{Pb}$ age of 1061 ± 24 Ma (1 standard deviation, MSWD = 1.7, a common lead correction based on the measured abundance of ^{204}Pb was applied), identical to the TIMS age reported by Weidenbeck et al. (1999). Repeat analyses of standard zircons Temora 2 (TIMS Pb/U age 416.8 ± 0.3 Ma, Black et al. 2004) and FC1 (TIMS Pb/U age 1099 Ma, Paces and Miller, 1989) were also interspersed throughout each session to monitor data quality (Table DR1). Thirty-seven analyses of Temora 2 returned a common lead corrected $^{206}\text{Pb}/^{238}\text{U}$ age of 418.2 ± 6 Ma (1 std. dev.), the corresponding figure being 1100.6 ± 14.4 Ma for FC1 ($n = 6$). During a second, shorter analytical session (comprising seven sample zircon analyses), seven analyses of 91500 yielded a common lead corrected $^{207}\text{Pb}/^{206}\text{Pb}$ age of 1059 ± 18 Ma (1 std. dev., MSWD = 1.0), whereas four FC1 analyses returned a common lead corrected $^{206}\text{Pb}/^{238}\text{U}$ age of 1091.4 ± 2 Ma (1 std. dev.).

The isotope ratios in Table DR1 are corrected for common Pb according to the ^{204}Pb method or, where the inferred ^{207}Pb concentration was below 0.15 ppm, the ^{208}Pb correction (denoted as ‘Th Corrd’ in Table DR1). Errors are quoted at 1σ precision and incorporate counting statistics and the uncertainty in the Pb/U calibration. Isoplot (Ludwig, 2001) was used to perform the age calculations and to construct the concordia diagrams.

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Rock type	Sample	No. of analyses	Weighted average $^{206}\text{Pb}/^{238}\text{U}$ age (Ma)	Pooled age of rock type (Ma)
Grt-Opx tonalite	HD23	12	18.8 ± 0.4	18.8 ± 0.3
	HD19	11	18.7 ± 0.5	
Granulite	HD19e	4	19.8 ± 0.5	19.3 ± 0.3
	4HB29	8	19.4 ± 0.6	
	HB1	6	18.9 ± 0.3	
Amphibolite	HB2	11	18.7 ± 0.5	18.7 ± 0.5
Gabbro	P2	11	18.5 ± 0.3	18.5 ± 0.3
Hbl-Opx tonalite	HD22	17	37.4 ± 0.3	37.4 ± 0.3
Hbl granite	HD14	8	37.4 ± 0.5	37.4 ± 0.3

Table DR2. Summary of the common lead corrected $^{206}\text{Pb}/^{238}\text{U}$ ages (at 95% confidence error limits) computed for individual samples compared to the pooled (multi-sample) age for a given rock type (as quoted in the manuscript and in Figure 3). Ages for the Grt-Opx tonalite and granulite were derived from analyses of zircon rims and acicular grains only.