

Table 1: Results of U-Pb LA-ICP-MS analyses of sample AG-1

AG-1 Spot/grain	$^{207}\text{Pb}^{\text{a}}$ (cps)	U ^b (ppm)	Pb ^b (ppm)	Th ^b U	^{206}Pb ^{204}Pb	$^{206}\text{Pb}^{\text{c}}$ ^{238}U	$\pm 2\sigma$ %	$^{207}\text{Pb}^{\text{c}}$ ^{235}U	$\pm 2\sigma$ %	$^{207}\text{Pb}^{\text{c}}$ ^{206}Pb	$\pm 2\sigma$ %	Rho ^e	^{206}Pb ^{238}U	$\pm 2\sigma$ (Ma)	^{207}Pb ^{235}U	$\pm 2\sigma$ (Ma)	^{207}Pb ^{206}Pb	$\pm 2\sigma$ (Ma)	Con ^f (%)
1c	29490	356	29	0.37	312	0.0735	2.2	0.577	7.6	0.0569	7.3	0.29	457	10	462	29	487	161	94
1r	66416	1487	83	0.05	2073	0.0592	1.7	0.441	2.3	0.0541	1.5	0.76	371	6	371	7	376	33	99
1r	61045	1417	78	0.05	3793	0.0588	2.6	0.444	2.9	0.0548	1.4	0.87	369	9	373	9	403	32	91
2c	78540	1348	106	0.23	12645	0.0764	1.6	0.608	1.8	0.0577	0.8	0.90	475	7	483	7	519	17	91
2r	39147	806	47	0.05	2002	0.0611	2.2	0.456	2.3	0.0541	0.9	0.92	382	8	381	7	374	20	102
3c	81062	1369	107	0.16	17910	0.0789	1.9	0.621	2.1	0.0570	0.9	0.90	490	9	490	8	493	20	99
5c1	5129	79	6	0.24	1736	0.0786	2.1	0.614	2.9	0.0566	2.0	0.72	488	10	486	11	477	44	102
5c2	5145	79	6	0.24	1271	0.0801	2.0	0.632	2.8	0.0572	2.0	0.71	497	9	497	11	501	43	99
5c3	14493	219	18	0.26	2755	0.0800	1.7	0.632	2.2	0.0573	1.4	0.77	496	8	498	9	503	30	99
5c4	127629	2070	182	0.13	9617	0.0905	1.9	0.732	2.0	0.0586	0.6	0.95	558	10	558	9	554	13	101
6c	220422	4125	348	0.07	1755	0.0763	2.1	0.604	2.4	0.0574	1.1	0.88	474	10	480	9	507	25	93
7c	31789	554	44	0.18	7046	0.0792	1.6	0.625	1.9	0.0572	1.0	0.86	491	8	493	7	501	21	98
7r	129557	2194	151	0.13	4274	0.0669	3.3	0.525	3.4	0.0569	0.9	0.97	417	13	428	12	488	19	86
9c	260818	4541	432	0.07	12173	0.0971	2.1	0.800	3.3	0.0598	2.6	0.63	597	12	597	15	595	56	100
10c	29016	390	39	0.37	1777	0.0908	1.8	0.749	2.3	0.0599	1.4	0.78	560	10	568	10	599	30	94
11c	40326	668	53	0.17	3118	0.0797	1.6	0.629	2.0	0.0573	1.1	0.83	494	8	496	8	502	25	98
11r	46224	1094	59	0.01	34831	0.0585	1.6	0.437	1.8	0.0542	0.9	0.86	366	6	368	6	380	20	97
11r2	41004	979	53	0.02	8012	0.0593	2.3	0.447	2.5	0.0547	0.9	0.94	371	8	375	8	398	20	93
12r	165897	2650	241	0.11	90358	0.0919	2.8	0.750	3.0	0.0592	0.9	0.95	567	15	568	13	574	20	99
12c	116712	2203	166	0.15	8686	0.0771	2.4	0.629	2.5	0.0591	0.8	0.94	479	11	495	10	572	18	84
13c	11504	149	13	0.37	3446	0.0792	1.9	0.625	2.6	0.0572	1.8	0.73	491	9	493	10	499	39	98
14c	15049	250	21	0.33	3016	0.0785	1.9	0.619	2.7	0.0571	1.9	0.71	487	9	489	11	497	42	98
14c	103911	1726	141	0.18	17408	0.0822	2.0	0.657	2.2	0.0580	1.0	0.90	509	10	513	9	528	21	96
14r	40953	1053	57	0.02	13609	0.0586	1.8	0.441	2.1	0.0545	1.0	0.88	367	7	371	7	394	22	93
15c	35526	588	51	0.36	5093	0.0795	1.9	0.625	2.3	0.0570	1.3	0.83	493	9	493	9	493	28	100
15r	91317	1858	119	0.05	7982	0.0675	2.5	0.525	2.7	0.0564	0.9	0.94	421	10	428	10	469	21	90
15c	87718	1629	127	0.13	5531	0.0795	1.7	0.628	2.1	0.0573	1.3	0.80	493	8	495	8	502	28	98
16r	75853	1695	95	0.05	6606	0.0601	2.6	0.452	2.8	0.0546	1.0	0.93	376	9	379	9	395	22	95
16c	175427	3608	252	0.10	3407	0.0705	1.8	0.556	2.0	0.0572	0.9	0.89	439	7	449	7	498	19	88
17c	180317	7240	677	0.10	196227	0.0947	1.9	0.770	2.2	0.0590	1.1	0.88	583	11	580	10	567	23	103
17r	15055	879	47	0.15	5438	0.0584	1.9	0.439	2.3	0.0545	1.4	0.80	366	7	369	7	391	31	94
18r	40169	1120	61	0.13	1950	0.0578	2.1	0.430	2.5	0.0539	1.3	0.85	362	8	363	8	368	29	99
19c	78502	1440	125	0.20	3895	0.0771	2.0	0.608	2.2	0.0572	0.9	0.92	479	9	482	9	500	20	96

19r	19588	503	28	0.01	3319	0.0609	2.0	0.455	2.7	0.0542	1.8	0.75	381	7	381	9	380	40	100
20r	14419	260	14	0.15	1076	0.0526	2.5	0.385	5.0	0.0531	4.3	0.50	331	8	331	14	334	97	99
20r	7227	194	10	0.06	8527	0.0541	2.6	0.402	3.4	0.0539	2.2	0.76	340	8	343	10	366	49	93
21c	36444	662	52	0.17	11179	0.0799	2.4	0.627	2.8	0.0569	1.5	0.84	495	11	494	11	489	33	101
21r	39329	1042	58	0.02	2469	0.0590	1.9	0.440	2.3	0.0541	1.3	0.84	369	7	370	7	374	28	99
22c	12907	233	18	0.15	6876	0.0770	2.0	0.604	2.3	0.0569	1.1	0.86	478	9	480	9	487	25	98
22r	78791	1579	110	0.13	5077	0.0702	2.8	0.550	3.0	0.0568	1.1	0.93	437	12	445	11	483	25	91
23c	31237	610	50	0.25	15138	0.0796	1.8	0.624	2.2	0.0568	1.3	0.80	494	8	492	9	485	29	102
25c	22477	451	35	0.15	5927	0.0792	2.0	0.625	2.3	0.0572	1.1	0.87	492	9	493	9	499	25	98
27c	34457	552	47	0.28	8884	0.0816	1.8	0.650	2.2	0.0578	1.3	0.81	506	9	509	9	523	28	97
27r	153060	2552	167	0.10	18651	0.0646	7.3	0.528	7.4	0.0593	1.0	0.99	404	29	431	26	579	21	70
28c	27241	435	36	0.36	2000	0.0744	1.6	0.641	2.2	0.0625	1.5	0.74	462	7	503	9	692	31	67
28c	102364	1560	134	0.19	3233	0.0831	1.9	0.671	2.2	0.0586	1.1	0.87	515	9	521	9	551	23	93
28r	4523	107	6	0.05	8185	0.0562	3.1	0.425	4.1	0.0549	2.8	0.75	352	11	360	13	409	62	86
29c	25977	481	35	0.18	4739	0.0712	1.7	0.590	2.1	0.0602	1.2	0.81	443	7	471	8	609	26	73
29r	101463	1830	125	0.16	5078	0.0697	3.1	0.548	3.2	0.0570	0.9	0.96	434	13	443	12	491	20	89
30r	54012	1057	58	0.16	3207	0.0549	5.5	0.425	5.7	0.0561	1.7	0.95	345	18	359	18	455	38	76
30r	26929	561	31	0.08	6527	0.0582	2.1	0.446	2.4	0.0556	1.2	0.87	365	7	374	7	434	26	84
30c	22222	364	30	0.22	6880	0.0826	2.4	0.649	2.8	0.0570	1.4	0.86	512	12	508	11	491	32	104
31c1	83579	1391	124	0.17	90805	0.0897	4.1	0.725	4.2	0.0586	0.7	0.98	554	22	554	18	553	16	100
31c2	47208	746	62	0.23	2691	0.0811	1.8	0.642	2.3	0.0574	1.4	0.78	503	9	504	9	507	31	99
32c1	33417	549	45	0.26	2785	0.0806	2.6	0.647	3.4	0.0582	2.2	0.76	500	12	507	14	538	48	93
32c2	24600	387	31	0.16	11736	0.0813	2.3	0.649	2.6	0.0579	1.1	0.90	504	11	508	10	526	24	96
33r	80563	1682	103	0.11	17962	0.0604	7.4	0.463	7.5	0.0555	0.6	1.00	378	27	386	24	434	14	87
33c	62141	882	68	0.17	896	0.0730	4.7	0.560	5.0	0.0556	1.7	0.94	454	21	451	19	435	39	104
34c	25590	441	36	0.23	44726	0.0797	2.9	0.627	3.1	0.0571	1.3	0.92	494	14	494	12	494	28	100
35c	79767	1504	129	0.18	122026	0.0860	5.1	0.672	5.3	0.0567	1.4	0.96	532	26	522	22	479	31	111
36c	16947	322	27	0.28	6194	0.0801	2.5	0.629	2.9	0.0569	1.5	0.85	497	12	495	12	489	34	102
37c1	26553	470	36	0.13	43920	0.0787	2.6	0.620	2.9	0.0571	1.3	0.90	488	12	490	11	497	28	98
37c2	68390	4263	339	0.19	14484	0.0791	2.7	0.623	3.0	0.0571	1.3	0.91	491	13	492	12	496	28	99
38c	55785	704	65	0.31	322	0.0799	2.3	0.630	5.1	0.0572	4.5	0.45	496	11	496	20	499	100	99
38r	64519	4554	337	0.21	7538	0.0741	2.3	0.584	2.6	0.0572	1.2	0.89	461	10	467	10	498	26	93
39r	16399	1483	83	0.13	3233	0.0593	3.1	0.471	3.8	0.0577	2.2	0.82	371	11	392	12	518	48	72
40c	15590	543	59	0.51	25980	0.0944	2.1	0.772	2.5	0.0593	1.4	0.84	582	12	581	11	578	30	101
41c1	85709	206	116	0.18	25271	0.5181	3.0	13.511	3.3	0.1891	1.3	0.92	2691	66	2716	31	2735	22	98
41r	20037	1662	128	0.11	21720	0.0798	2.2	0.622	2.4	0.0565	1.0	0.90	495	10	491	9	474	23	105
42c	53275	537	72	0.17	4522	0.1261	3.5	1.491	4.0	0.0858	1.9	0.88	766	25	927	24	1333	36	57
42r	9475	2000	110	0.02	12356	0.0593	2.1	0.447	2.5	0.0547	1.5	0.82	372	7	375	8	399	33	93
43r	5814	687	36	0.01	3610	0.0568	2.1	0.424	3.2	0.0542	2.5	0.64	356	7	359	10	378	56	94

44c	35405	830	67	0.21	4924	0.0729	2.0	0.569	2.5	0.0566	1.6	0.79	454	9	457	9	475	35	96
44b	49318	4080	319	0.21	11628	0.0771	2.0	0.605	2.3	0.0569	1.2	0.85	479	9	481	9	489	27	98
45c	13215	345	25	0.15	5634	0.0738	1.8	0.576	2.2	0.0566	1.3	0.80	459	8	462	8	476	29	96
45r	4391	531	29	0.04	4200	0.0585	2.2	0.450	3.6	0.0558	2.8	0.62	367	8	377	11	443	63	83
46	62003	2323	119	0.02	114226	0.0561	2.3	0.417	2.5	0.0538	1.0	0.91	352	8	354	8	363	23	97
46b	12557	1609	82	0.02	8740	0.0555	2.0	0.411	2.5	0.0537	1.4	0.83	348	7	350	7	358	31	97
47c	102987	2778	198	0.11	22318	0.0727	2.0	0.572	2.6	0.0570	1.6	0.79	453	9	459	10	492	35	92
47r	8313	1178	60	0.03	2543	0.0547	2.0	0.406	3.2	0.0538	2.5	0.62	343	7	346	10	363	57	95
48	22564	2965	203	0.15	5552	0.0724	2.2	0.569	2.8	0.0570	1.7	0.79	450	9	457	10	492	38	92
49c	12182	343	28	0.25	20976	0.0754	1.9	0.591	2.5	0.0569	1.6	0.78	469	9	472	9	486	35	97
49r	7748	1156	59	0.03	1969	0.0557	2.4	0.416	3.7	0.0542	2.9	0.63	350	8	353	11	379	65	92
50c	88004	2518	183	0.15	13897	0.0734	2.5	0.576	2.6	0.0569	0.7	0.96	457	11	462	10	487	16	94
50r	48198	6900	393	0.10	17303	0.0590	2.0	0.447	2.7	0.0549	1.7	0.76	370	7	375	8	406	39	91
51c	119604	4905	366	0.12	20084	0.0750	3.1	0.592	3.4	0.0573	1.2	0.93	466	14	472	13	502	27	93
51r	6337	1060	57	0.01	2615	0.0582	1.9	0.445	3.1	0.0555	2.4	0.61	365	7	374	10	432	54	84
52c	73247	2364	189	0.19	18430	0.0799	2.1	0.630	2.5	0.0572	1.4	0.83	496	10	496	10	499	31	99
52r	23669	3286	186	0.04	18565	0.0601	2.0	0.448	2.3	0.0541	1.2	0.86	376	7	376	7	376	26	100

^a Within run background-corrected mean ²⁰⁷Pb signal.

^b U and Pb content and Th/U ratio were calculated relative to GJ-1 reference (LA-ICP-MS values, Gerdes, unpublished).

^c corrected for background, within-run Pb/U fractionation and common Pb using Stacy and Kramers (1975) model Pb composition and subsequently normalised to GJ-1 (ID-TIMS value/measured value); ²⁰⁷Pb/²³⁵U calculated using ²⁰⁷Pb/²⁰⁶Pb/(²³⁸U/²⁰⁶Pb x 1/137.88)

^e Rho is the error correlation defined as err²⁰⁶Pb/²³⁸U/err²⁰⁷Pb/²³⁵U

^f degree of concordance = (²³⁸U/²⁰⁶Pb age x 100)/(²⁰⁷Pb/²⁰⁶Pb age)

c=core; r=rim

The analyses used for concordia ages are highlighted in boldface.

Table 2: Results of U-Pb LA-ICP-MS analyses of sample MT-3

MT-3 Spot/grain	$^{207}\text{Pb}^a$ (cps)	U ^b (ppm)	Pb ^b (ppm)	Th ^b U	^{206}Pb ^{204}Pb	$^{206}\text{Pb}^c$ ^{238}U	$\pm 2\sigma$ %	$^{207}\text{Pb}^c$ ^{235}U	$\pm 2\sigma$ %	$^{207}\text{Pb}^c$ ^{206}Pb	$\pm 2\sigma$ %	Rho ^e	^{206}Pb ^{238}U	$\pm 2\sigma$ (Ma)	^{207}Pb ^{235}U	$\pm 2\sigma$ (Ma)	^{207}Pb ^{206}Pb	$\pm 2\sigma$ (Ma)	Conf ^f (%)
1	38256	431	43	0.31	2136	0.0755	1.9	0.583	5.8	0.0561	5.4	0.33	469	9	467	22	455	121	103
2	44344	788	67	0.39	1630	0.0694	2.1	0.536	3.5	0.0559	2.8	0.59	433	9	435	13	450	63	96
3	47485	84	48	0.30	2553	0.4988	2.1	13.418	2.5	0.1951	1.3	0.84	2608	45	2710	24	2786	22	94
4	8415	291	23	0.19	1867	0.0782	1.8	0.612	3.2	0.0568	2.7	0.57	485	9	485	12	485	59	100
5	47870	250	79	0.71	1712	0.2372	2.5	4.075	3.5	0.1246	2.5	0.72	1372	31	1649	29	2023	44	68
6	5714	171	18	0.26	9569	0.1017	2.0	0.839	3.0	0.0598	2.3	0.65	625	12	618	14	596	50	105
7	30610	462	43	0.43	5998	0.0798	1.8	0.628	2.5	0.0571	1.7	0.73	495	9	495	10	494	38	100
8	6756	238	22	0.20	3401	0.0915	1.9	0.748	2.7	0.0593	2.0	0.69	565	10	567	12	579	43	98
9	31530	972	102	0.24	24663	0.1041	1.8	0.875	2.3	0.0610	1.4	0.78	638	11	638	11	638	31	100
10	7744	346	28	0.31	13749	0.0796	1.9	0.617	2.8	0.0563	2.1	0.67	494	9	488	11	463	47	106
12	3910	38	20	0.56	2556	0.4632	2.7	9.922	3.3	0.1553	1.9	0.82	2454	56	2428	31	2406	33	102
13	10784	297	25	0.35	18950	0.0793	1.9	0.624	2.7	0.0571	1.9	0.70	492	9	493	10	495	42	99
13r	3296	193	18	0.22	3100	0.0874	2.9	0.753	5.8	0.0624	5.0	0.49	540	15	570	26	689	108	78
14c	38769	196	83	0.54	6075	0.3664	1.9	6.345	2.0	0.1256	0.9	0.90	2012	32	2025	18	2037	15	99
14r	4271	187	70	0.29	820	0.3469	2.3	5.691	3.8	0.1190	3.0	0.60	1920	38	1930	33	1941	54	99
14c	5264	209	89	0.79	4356	0.3448	2.4	5.704	4.0	0.1200	3.2	0.59	1910	39	1932	35	1956	58	98
15	10294	371	32	0.32	1952	0.0797	2.1	0.623	2.9	0.0566	1.9	0.74	495	10	491	11	477	42	104
15r	4792	648	54	0.21	653	0.0797	2.4	0.624	3.2	0.0568	2.1	0.75	494	11	492	13	483	47	102
16	10338	621	52	0.38	5788	0.0789	1.8	0.617	2.4	0.0568	1.6	0.75	489	8	488	9	482	35	102
16r	3747	111	10	0.20	1349	0.0786	2.5	0.606	3.8	0.0559	2.8	0.67	488	12	481	15	450	62	108
17	101417	549	62	0.38	4642	0.08089	1.6	0.6367	4.5	0.0571	4.3	0.35	501	8	500	18	495	94	101
18	28079	380	40	0.33	9407	0.09683	1.5	0.8006	1.7	0.0600	0.9	0.85	596	8	597	8	602	19	99
19	36685	501	50	0.45	1128	0.08781	1.5	0.6978	2.0	0.0576	1.3	0.74	543	8	537	8	516	29	105
20	34312	67	25	0.17	7784	0.3627	1.6	6.301	1.9	0.1260	1.0	0.85	1995	27	2019	17	2043	18	98
21	138731	307	110	0.02	113478	0.3674	1.6	6.204	1.8	0.1225	0.9	0.86	2017	27	2005	16	1993	17	101
22	16890	319	25	0.21	28879	0.07922	1.5	0.6297	1.9	0.0576	1.2	0.77	491	7	496	7	516	27	95
23	24527	461	39	0.28	13685	0.08102	1.5	0.6406	1.9	0.0573	1.2	0.78	502	7	503	8	505	27	99
24	6190	18	6	0.46	5559	0.2920	1.6	4.443	2.6	0.1103	2.1	0.60	1652	23	1720	22	1805	37	92
25	18323	359	30	0.31	31879	0.07840	1.4	0.6191	1.8	0.0573	1.1	0.77	487	7	489	7	502	25	97
25	22482	430	37	0.32	6129	0.08107	1.4	0.6414	1.8	0.0574	1.1	0.76	503	7	503	7	506	25	99
27	24863	476	41	0.35	10956	0.08152	1.3	0.6456	1.7	0.0574	1.0	0.78	505	6	506	7	508	23	99
28	31600	522	43	0.27	2119	0.07911	1.3	0.6204	2.2	0.0569	1.8	0.60	491	6	490	9	487	39	101
29	22111	440	37	0.30	17687	0.08035	1.3	0.6316	1.8	0.0570	1.3	0.70	498	6	497	7	492	29	101

30	23592	454	39	0.32	40642	0.08060	1.4	0.6386	1.9	0.0575	1.2	0.77	500	7	501	7	509	26	98
31	14089	275	23	0.29	18903	0.08052	1.3	0.6366	1.9	0.0573	1.4	0.69	499	6	500	7	505	30	99
32	65191	721	73	0.19	1549	0.09565	1.6	0.7892	2.1	0.0598	1.4	0.74	589	9	591	9	598	31	98
33	88030	754	73	0.38	2184	0.07902	1.8	0.6215	2.4	0.0570	1.6	0.74	490	8	491	9	493	36	99
34	180859	910	105	0.36	2020	0.07662	1.4	0.6031	2.5	0.0571	2.1	0.57	476	7	479	10	495	46	96
35	15083	197	21	0.34	6462	0.09846	1.4	0.8175	4.4	0.0602	4.1	0.33	605	8	607	20	611	89	99
36	12853	189	24	0.80	20428	0.09895	1.4	0.8268	2.1	0.0606	1.6	0.66	608	8	612	10	625	35	97
37	67679	73	40	0.27	37931	0.4920	1.4	12.090	1.6	0.1782	0.8	0.86	2579	30	2611	15	2636	14	98
38	28570	475	41	0.05	30294	0.09298	1.4	0.7624	1.9	0.0595	1.3	0.73	573	8	575	9	584	29	98
40	9788	149	18	0.67	15686	0.09984	1.5	0.8319	2.4	0.0604	1.8	0.65	613	9	615	11	619	39	99
41	35236	732	57	0.25	5093	0.07499	1.7	0.5925	2.3	0.0573	1.6	0.72	466	8	472	9	503	35	93
42	49857	432	40	0.26	1221	0.07473	1.6	0.5842	3.3	0.0567	2.8	0.50	465	7	467	12	480	62	97
43	91002	218	83	0.49	72616	0.3268	1.5	5.615	1.6	0.1246	0.7	0.91	1823	24	1918	14	2023	12	90
44	41951	564	53	0.25	1901	0.08763	1.5	0.7044	3.0	0.0583	2.6	0.51	542	8	541	13	541	56	100
45	32532	375	34	0.29	3316	0.08007	1.4	0.6314	3.2	0.0572	2.8	0.44	497	7	497	13	499	63	100
46	651	30	3	0.31	1053	0.1123	2.6	0.9476	6.2	0.0612	5.7	0.42	686	17	677	31	646	121	106
47	11758	182	19	0.51	5751	0.09292	1.7	0.7554	2.9	0.0590	2.4	0.58	573	9	571	13	566	52	101
48	18651	248	27	0.37	5316	0.09764	1.4	0.8130	4.1	0.0604	3.9	0.33	601	8	604	19	618	84	97
49	21964	467	39	0.35	26673	0.07817	1.3	0.6182	1.8	0.0574	1.2	0.76	485	6	489	7	505	26	96
51	42548	101	41	0.54	6945	0.3467	1.7	5.6529	1.9	0.1182	1.0	0.86	1919	28	1924	17	1930	18	99
52	47655	119	53	0.91	4551	0.3436	1.6	5.5847	1.8	0.1179	0.8	0.90	1904	26	1914	15	1924	14	99
53	60664	447	46	0.34	1923	0.07879	1.5	0.6255	2.9	0.0576	2.5	0.52	489	7	493	12	514	55	95
54	44771	481	45	0.37	4108	0.07984	1.4	0.6309	2.3	0.0573	1.9	0.60	495	7	497	9	503	41	98
55	13716	294	25	0.32	23079	0.08019	1.5	0.6360	2.0	0.0575	1.4	0.71	497	7	500	8	512	32	97
57	33857	363	34	0.28	1982	0.07996	1.5	0.6278	2.7	0.0569	2.2	0.57	496	7	495	11	489	49	101
58	34003	320	29	0.26	2824	0.07617	1.3	0.5929	3.4	0.0565	3.2	0.37	473	6	473	13	470	70	101
59	359790	374	215	0.47	5176	0.4729	1.4	13.204	1.6	0.2025	0.7	0.90	2496	29	2694	15	2847	11	88
60	101837	187	75	0.34	6842	0.3476	1.4	7.6398	1.8	0.1594	1.1	0.81	1923	24	2190	16	2449	18	79
61	37101	74	32	0.40	16586	0.3876	1.5	7.0590	1.8	0.1321	1.0	0.84	2112	27	2119	16	2126	17	99
62	17085	370	30	0.25	6555	0.07958	1.4	0.6240	2.0	0.0569	1.4	0.69	494	6	492	8	486	31	101
63	24402	514	44	0.41	4636	0.07917	1.5	0.6240	2.9	0.0572	2.5	0.51	491	7	492	11	498	54	99
64	12020	221	19	0.38	3523	0.07937	1.4	0.6174	3.6	0.0564	3.3	0.39	492	7	488	14	469	73	105
66	43960	119	43	0.44	37593	0.3218	1.3	5.164	1.6	0.1164	0.9	0.84	1798	21	1847	14	1902	15	95
67	25193	250	24	0.36	2893	0.07962	1.6	0.6288	3.5	0.0573	3.1	0.45	494	8	495	14	502	69	98
68	3735	65	8	0.99	6166	0.09856	1.8	0.8218	3.0	0.0605	2.4	0.59	606	10	609	14	620	53	98
69	78217	64	43	0.51	3562	0.4978	1.4	12.628	1.8	0.1840	1.2	0.77	2604	30	2652	17	2689	19	97
70	14183	226	19	0.29	1900	0.07794	1.4	0.6126	4.3	0.0570	4.1	0.32	484	6	485	17	492	90	98
71	91026	680	102	0.31	8733	0.1368	1.3	1.664	1.8	0.0883	1.2	0.74	826	10	995	12	1388	23	60

^a Within run background-corrected mean ^{207}Pb signal.

^b U and Pb content and Th/U ratio were calculated relative to GJ-1 reference (LA-ICP-MS values, Gerdes, unpublished).

^c corrected for background, within-run Pb/U fractionation and common Pb using Stacy and Kramers (1975) model Pb composition and subsequently normalised to GJ-1 (ID-TIMS value/measured value); $^{207}\text{Pb}/^{235}\text{U}$ calculated using $^{207}\text{Pb}/^{206}\text{Pb}/(^{238}\text{U}/^{206}\text{Pb} \times 1/137.88)$

^e Rho is the error correlation defined as $\text{err}^{206}\text{Pb}/^{238}\text{U}/\text{err}^{207}\text{Pb}/^{235}\text{U}$

^f degree of concordance = ($^{238}\text{U}/^{206}\text{Pb}$ age $\times 100$) / $^{207}\text{Pb}/^{206}\text{Pb}$ age)

c=core; r=rim

The analyses used for concordia ages are highlighted in boldface.

Table 3: Results of U-Pb SIMS analyses of samples AG-2, MT-1 and MT-2

AG-2	U ^b	Pb ^b	Th ^b	$\frac{^{206}\text{Pb}}{^{204}\text{Pb}}$	$\frac{^{206}\text{Pb}^c}{^{238}\text{U}}$	$\pm \sigma$	$\frac{^{207}\text{Pb}^c}{^{235}\text{U}}$	$\pm \sigma$	$\frac{^{207}\text{Pb}^c}{^{206}\text{Pb}}$	$\pm \sigma$	Rho ^e	$\frac{^{206}\text{Pb}}{^{238}\text{U}}$	$\pm \sigma$	$\frac{^{207}\text{Pb}}{^{235}\text{U}}$	$\pm \sigma$	$\frac{^{207}\text{Pb}}{^{206}\text{Pb}}$	$\pm \sigma$	Conf ^f
Spot/grain	(ppm)	(ppm)		U		%		%		%		(Ma)		(Ma)		(Ma)		(%)
n2044-1	47	3	0.011	1704	0.0555	0.9	0.4075	3.8	0.0532	3.7	0.24	348	3	347	11	337	82	103
n2044-2	114	7	0.006	8917	0.0540	0.8	0.4155	2.8	0.0558	2.7	0.28	339	3	353	9	446	60	76
n2044-3	82	5	0.268	2335	0.0556	0.9	0.4246	4.1	0.0554	4.1	0.21	349	3	359	13	428	88	82
n2044-4	58	3	0.006	3489	0.0558	1.1	0.3732	4.0	0.0485	3.8	0.29	350	4	322	11	126	87	277
n2044-5	110	7	0.014	7580	0.0559	0.7	0.4238	2.5	0.0550	2.4	0.29	351	2	359	7	412	52	85
n2044-6	122	7	0.007	11347	0.0539	0.8	0.4087	2.3	0.0550	2.2	0.35	339	3	348	7	410	48	83
n2044-7	61	4	0.010	5806	0.0556	0.9	0.4132	3.3	0.0539	3.1	0.28	349	3	351	10	366	69	95
n2044-8	70	4	0.005	8162	0.0561	0.8	0.4012	3.0	0.0519	2.9	0.27	352	3	342	9	281	65	125
n2044-9	54	3	0.009	2946	0.0537	0.8	0.4245	3.3	0.0573	3.2	0.25	337	3	359	10	504	69	67
n2044-10	50	3	0.024	3432	0.0529	0.8	0.4265	3.4	0.0584	3.3	0.22	333	2	361	10	546	71	61
n2044-11	80	5	0.005	5780	0.0562	0.8	0.4235	2.8	0.0547	2.7	0.28	352	3	359	8	399	59	88
n2044-12	91	5	0.005	11045	0.0551	0.8	0.4143	2.6	0.0546	2.5	0.32	346	3	352	8	395	54	88
n2044-13	72	4	0.021	6919	0.0555	0.8	0.3904	3.0	0.0510	2.9	0.27	348	3	335	9	240	66	145
n2044-14	150	8	0.009	3809	0.0561	0.9	0.3995	3.1	0.0516	2.9	0.31	352	3	341	9	269	65	131
n2044-15	76	4	0.006	3163	0.0555	0.8	0.3607	4.5	0.0471	4.4	0.19	348	3	313	12	55	101	631
n2044-16	72	4	0.007	10592	0.0564	0.7	0.4178	2.9	0.0537	2.8	0.25	354	2	354	9	360	62	98
n2044-17	91	5	0.006	12537	0.0566	0.7	0.4107	2.6	0.0526	2.4	0.29	355	3	349	8	311	55	114
n2044-18	94	5	0.008	37221	0.0548	0.8	0.4086	2.6	0.0541	2.5	0.30	344	3	348	8	373	55	92
n2044-19	73	4	0.050	2084	0.0533	0.7	0.3490	5.9	0.0475	5.8	0.12	335	2	304	16	73	133	460
n2044-20	63	4	0.005	12745	0.0568	0.9	0.4400	3.2	0.0562	3.0	0.28	356	3	370	10	459	66	78
n2044-21	118	7	0.061	9673	0.0552	0.8	0.4133	2.3	0.0543	2.1	0.37	346	3	351	7	385	47	90
n2044-22	88	5	0.007	10851	0.0547	0.8	0.4078	2.7	0.0540	2.6	0.30	344	3	347	8	372	58	92
n2044-23	167	10	0.010	8392	0.0552	0.8	0.4180	2.0	0.0549	1.9	0.39	347	3	355	6	407	41	85
n2044-24	93	6	0.015	12537	0.0566	0.8	0.4120	2.5	0.0528	2.4	0.30	355	3	350	8	319	54	111
n2044-25	125	8	0.006	4223	0.0572	0.7	0.4197	2.3	0.0532	2.1	0.32	359	3	356	7	337	48	106
n2044-26	36	2	0.017	1332	0.0538	0.8	0.3362	8.6	0.0453	8.5	0.09	338	3	294	22	-39	195	-867
n2044-27	64	4	0.044	3866	0.0528	0.9	0.4113	4.3	0.0565	4.2	0.21	332	3	350	13	471	91	71
n2044-28	48	3	0.020	7155	0.0541	0.8	0.4047	3.5	0.0542	3.5	0.23	340	3	345	10	380	76	89
n2044-29	170	10	0.005	27318	0.0565	0.7	0.4161	1.9	0.0534	1.7	0.38	354	2	353	6	345	39	103
n2044-30	52	2	0.005	1654	0.0546	0.8	0.3448	7.3	0.0458	7.3	0.11	342	3	301	19	-11	167	-3113
n2044-31	27	2	0.006	5638	0.0546	0.7	0.4120	4.3	0.0547	4.2	0.17	343	2	350	13	399	91	86
n2044-32	49	3	0.004	2909	0.0579	0.8	0.4447	3.2	0.0557	3.1	0.24	363	3	374	10	439	68	83

n2044-33	76	4	0.039	4301	0.0548	0.7	0.4030	2.9	0.0534	2.8	0.25	344	2	344	8	344	62	100
n2044-34	36	2	0.060	2464	0.0559	1.0	0.3976	4.2	0.0516	4.0	0.25	350	4	340	12	268	90	131
n2044-35	68	4	0.086	4223	0.0566	0.7	0.4565	3.1	0.0585	3.0	0.24	355	3	382	10	547	64	65
n2044-36	99	6	0.019	4181	0.0556	0.9	0.3948	4.0	0.0515	3.8	0.24	349	3	338	11	265	86	131

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n2042-1	126	11	0.213	19957	0.0769	1.1	0.5971	1.9	0.0563	1.6	0.59	478	5	475	7	464	34	103
n2042-2	858	85	0.647	44931	0.0784	1.0	0.6103	1.1	0.0565	0.6	0.86	486	5	484	4	472	13	103
n2042-3	1335	137	0.777	108533	0.0782	1.0	0.6161	1.1	0.0571	0.5	0.90	485	5	487	4	497	10	98
n2042-4a	480	44	0.425	17493	0.0771	1.0	0.5963	1.3	0.0561	0.8	0.77	479	4	475	5	456	18	105
n2042-4b	1918	227	1.266	54160	0.0815	1.1	0.6352	1.1	0.0565	0.4	0.92	505	5	499	5	473	10	107
n2042-5	1215	124	0.673	84246	0.0798	1.0	0.6267	1.1	0.0570	0.5	0.90	495	5	494	4	490	11	101
n2042-6	626	57	0.402	18619	0.0773	1.0	0.6054	1.2	0.0568	0.8	0.78	480	4	481	5	483	17	99
n2042-7	1396	135	0.518	186343	0.0787	1.0	0.6224	1.1	0.0574	0.4	0.91	488	5	491	4	507	10	96
n2042-8	78	0.571	63878	0.0788	1.0	0.6267	1.1	0.0577	0.6	0.85	489	5	494	4	517	13	95	
n2042-9	1116	110	0.566	159052	0.0796	1.0	0.6195	1.1	0.0564	0.5	0.89	494	5	490	4	470	11	105
n2042-10	1261	131	0.659	36085	0.0818	1.0	0.6393	1.1	0.0567	0.5	0.90	507	5	502	4	479	11	106
n2042-11	1472	146	0.575	85253	0.0798	1.0	0.6296	1.1	0.0572	0.4	0.91	495	5	496	4	500	10	99
n2042-12	1720	187	0.927	53595	0.0793	1.0	0.6239	1.1	0.0571	0.4	0.92	492	5	492	4	494	9	99
n2042-13	2674	327	1.404	89362	0.0808	1.0	0.6343	1.0	0.0570	0.3	0.94	501	5	499	4	490	8	102
n2042-14	2052	220	0.830	120512	0.0812	1.0	0.6374	1.0	0.0569	0.4	0.93	503	5	501	4	488	8	103
n2042-15	1390	141	0.654	107844	0.0806	1.0	0.6322	1.1	0.0569	0.5	0.90	499	5	497	4	488	11	102
n2042-16	871	73	0.098	30619	0.0772	1.0	0.6098	1.2	0.0573	0.6	0.83	479	4	483	4	503	14	95
n2042-17a	454	43	0.438	23361	0.0798	1.0	0.6233	1.3	0.0566	0.9	0.74	495	5	492	5	478	19	104
n2042-17b	1042	102	0.608	68508	0.0784	1.0	0.6178	1.1	0.0572	0.6	0.85	486	5	488	4	498	13	98
n2042-18	2522	297	1.214	168171	0.0817	1.0	0.6438	1.0	0.0571	0.4	0.93	506	5	505	4	497	8	102
n2042-19	756	73	0.530	10697	0.0793	1.0	0.6196	1.3	0.0567	0.8	0.77	492	5	490	5	479	18	103
n2042-20	775	75	0.560	45255	0.0784	1.0	0.6126	1.2	0.0567	0.7	0.82	486	5	485	5	479	15	101
n2042-21	2143	255	1.322	135278	0.0806	1.0	0.6349	1.1	0.0571	0.4	0.92	500	5	499	4	496	9	101
n2042-22	2053	230	1.097	191126	0.0801	1.0	0.6267	1.1	0.0568	0.4	0.92	496	5	494	4	483	9	103
n2042-23	804	74	0.364	46494	0.0781	1.0	0.6178	1.2	0.0573	0.7	0.82	485	5	488	5	505	15	96

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n2043-01	462	39	0.272	2345	0.0751	1.0	0.5486	2.1	0.0530	1.9	0.46	467	4	444	8	329	43	142
n2043-02	449	46	0.628	19072	0.0819	1.0	0.6347	1.3	0.0562	0.9	0.72	507	5	499	5	461	20	110
n2043-03	462	39	0.230	10895	0.0749	1.0	0.5734	1.7	0.0555	1.4	0.58	466	4	460	6	433	31	107
n2043-04	608	56	0.233	84359	0.0823	1.0	0.6463	1.3	0.0569	0.8	0.78	510	5	506	5	489	18	104

n2043-05	515	46	0.178	29534	0.0805	1.0	0.6200	1.4	0.0559	1.0	0.71	499	5	490	5	447	21	112
n2043-06	556	48	0.179	61014	0.0787	1.0	0.6176	1.3	0.0569	0.8	0.76	488	5	488	5	489	18	100
n2043-07	492	44	0.185	29802	0.0802	1.0	0.6264	1.3	0.0567	0.9	0.74	497	5	494	5	479	19	104
n2043-08	701	58	0.414	27893	0.0709	1.0	0.5373	1.4	0.0550	1.0	0.70	442	4	437	5	411	22	108
n2043-09	758	77	0.564	35418	0.0828	1.0	0.6510	1.2	0.0570	0.7	0.81	513	5	509	5	491	15	104
n2043-10	294	26	0.243	6940	0.0776	1.0	0.5990	1.8	0.0560	1.5	0.56	482	5	477	7	452	32	107
n2043-11	82	7	0.337	3990	0.0761	1.0	0.5940	3.0	0.0566	2.8	0.34	473	5	473	11	475	60	100
n2043-12	309	31	0.585	12352	0.0813	1.0	0.6351	2.0	0.0567	1.7	0.50	504	5	499	8	479	37	105
n2043-13	1075	100	0.292	88230	0.0812	1.0	0.6344	1.2	0.0567	0.7	0.84	503	5	499	5	479	14	105
n2043-14	546	51	0.343	55049	0.0817	1.0	0.6428	1.2	0.0571	0.8	0.78	506	5	504	5	494	17	102
n2043-15	434	44	0.554	24216	0.0833	1.0	0.6511	1.4	0.0567	0.9	0.75	516	5	509	6	480	20	107
n2043-16	349	32	0.456	4496	0.0787	1.0	0.6047	1.8	0.0558	1.5	0.53	488	5	480	7	443	34	110
n2043-17	265	25	0.450	7689	0.0794	1.0	0.6110	2.0	0.0558	1.7	0.49	493	5	484	8	444	38	111
n2043-18	1216	120	0.498	40363	0.0829	1.0	0.6417	1.2	0.0561	0.6	0.84	514	5	503	5	457	14	112
n2043-19	580	52	0.229	25754	0.0805	1.0	0.6140	1.4	0.0553	1.1	0.67	499	5	486	6	425	23	118
n2043-20	674	59	0.201	17916	0.0798	1.0	0.6154	1.3	0.0559	0.9	0.73	495	5	487	5	449	20	110
n2043-21	489	45	0.357	9790	0.0803	1.0	0.6091	1.5	0.0550	1.2	0.63	498	5	483	6	412	26	121
n2043-22	367	33	0.475	7570	0.0760	1.0	0.5755	1.8	0.0549	1.5	0.54	472	4	462	7	410	33	115
n2042-24	164	14	0.441	901	0.0751	1.6	0.5148	7.6	0.0497	7.5	0.22	467	7	422	27	182	165	257
n2043-26	684	68	0.668	12647	0.0795	1.5	0.6121	2.1	0.0559	1.5	0.72	493	7	485	8	447	33	110
n2043-27	117	11	0.547	2696	0.0757	1.5	0.5021	5.1	0.0481	4.9	0.29	471	7	413	17	104	111	453

The analyses used for concordia ages are highlighted in boldface.

Table 4: LA-MC-ICPMS Lu-Hf isotope data of zircon from samples AG-1 and MT-3

	$^{176}\text{Yb}/^{177}\text{Hf}$ ^a	$\pm 2\sigma$	$^{176}\text{Lu}/^{177}\text{Hf}$ ^a	$\pm 2\sigma$	$^{178}\text{Hf}/^{177}\text{Hf}$	$^{180}\text{Hf}/^{177}\text{Hf}$	Sig _{Hf} ^b	$^{176}\text{Hf}/^{177}\text{Hf}$	$\pm 2\sigma^c$	$^{176}\text{Hf}/^{177}\text{Hf}_{(t)}$	$\varepsilon\text{Hf}(t)$ ^d	$\pm 2\sigma^c$	T _{DM2} ^e	age ^f	$\pm 2\sigma$
	(V)												(Ga)	(Ma)	
AG-1_1a	0.0549	32	0.00135	5	1.46714	1.88677	10	0.282351	26	0.282339	-5.1	0.9	1.54	457	10
AG-1_1b rim	0.1061	65	0.00239	12	1.46728	1.88698	31	0.282508	31	0.282491	-1.7	1.1	1.29	371	6
AG-1_1b core	0.0937	73	0.00237	14	1.46733	1.88699	13	0.282482	34	0.282465	-2.6	1.2	1.34	371	6
AG-1_1c	0.0926	99	0.00205	20	1.46721	1.88684	7	0.282565	30	0.282551	0.4	1.1	1.18	369	9
AG-1_2	0.1121	126	0.00280	34	1.46714	1.88667	13	0.282373	26	0.282348	-4.4	0.9	1.52	475	7
AG-1_2b	0.1127	29	0.00260	7	1.46728	1.88694	30	0.282409	24	0.282390	-5.0	0.9	1.47	382	8
AG-1_3	0.0462	20	0.00115	5	1.46728	1.88689	15	0.282342	24	0.282331	-4.7	0.8	1.55	497	9
AG-1_5a	0.1136	144	0.00276	37	1.46718	1.88676	18	0.282390	31	0.282364	-3.6	1.1	1.48	488	10
AG-1_5b	0.0934	134	0.00229	34	1.46720	1.88674	16	0.282377	25	0.282355	-3.7	0.9	1.50	496	8
AG-1_6	0.1335	80	0.00326	26	1.46725	1.88687	10	0.282368	33	0.282339	-4.8	1.2	1.54	474	10
AG-1_7	0.0804	47	0.00191	14	1.46712	1.88668	14	0.282371	30	0.282353	-3.9	1.1	1.50	491	8
AG-1_7b	0.1374	81	0.00316	13	1.46733	1.88699	20	0.282429	30	0.282404	-3.7	1.0	1.43	417	13
AG-1_8	0.0974	132	0.00230	42	1.46730	1.88698	17	0.282370	30	0.282350	-4.7	1.1	1.52	463	8
AG-1_9	0.1334	133	0.00310	28	1.46713	1.88670	26	0.282329	31	0.282294	-3.6	1.1	1.58	597	12
AG-1_10	0.0832	46	0.00178	7	1.46721	1.88683	19	0.282386	26	0.282367	-1.9	0.9	1.45	560	10
AG-1_11b	0.0776	45	0.00202	8	1.46729	1.88699	12	0.282518	41	0.282504	-1.3	1.4	1.27	366	6
AG-1_14	0.0841	115	0.00191	22	1.46718	1.88678	16	0.282358	32	0.282340	-4.4	1.1	1.53	487	9
AG-1_14b	0.0587	58	0.00145	11	1.46721	1.88684	15	0.282335	24	0.282321	-4.6	0.8	1.56	509	10
AG-1_14c	0.0492	36	0.00117	11	1.46722	1.88686	26	0.282509	26	0.282501	-1.4	0.9	1.27	367	7
AG-1_15	0.1208	109	0.00280	26	1.46716	1.88676	16	0.282388	34	0.282362	-3.5	1.2	1.49	493	9
AG-1_16	0.1017	55	0.00243	13	1.46717	1.88675	17	0.282391	27	0.282369	-3.6	1.0	1.48	481	8
AG-1_16b	0.0959	77	0.00227	16	1.46726	1.88694	23	0.282426	24	0.282410	-4.4	0.9	1.44	376	9
AG-1_17	0.1538	41	0.00367	10	1.46716	1.88683	21	0.282416	30	0.282376	-1.0	1.1	1.43	583	11
AG-1_17c	0.0316	59	0.00067	12	1.46728	1.88696	27	0.282466	30	0.282462	-2.9	1.1	1.35	362	7
AG-1_19	0.0815	25	0.00188	5	1.46720	1.88682	16	0.282362	27	0.282345	-4.5	1.0	1.52	479	9
AG-1_19b	0.1212	30	0.00284	12	1.46729	1.88691	28	0.282434	30	0.282414	-4.2	1.1	1.43	381	7
AG-1_20	0.1013	70	0.00246	21	1.46732	1.88697	18	0.282415	30	0.282400	-5.8	1.0	1.47	331	8
AG-1_21	0.0555	42	0.00131	7	1.46720	1.88674	16	0.282343	26	0.282331	-4.6	0.9	1.54	495	11
AG-1_21b	0.0513	27	0.00122	7	1.46726	1.88694	33	0.282484	24	0.282475	-2.3	0.8	1.32	369	7
AG-1_22	0.0858	73	0.00207	21	1.46714	1.88669	18	0.282381	24	0.282362	-3.9	0.9	1.49	478	9
AG-1_23	0.0569	27	0.00136	5	1.46714	1.88671	15	0.282371	24	0.282359	-3.6	0.8	1.49	492	9
AG-1_25	0.0524	106	0.00130	27	1.46724	1.88684	17	0.282358	31	0.282346	-4.1	1.1	1.52	492	9

AG-1_37	0.0605	55	0.00147	15	1.46716	1.88674	16	0.282346	24	0.282332	-4.6	0.9	1.54	492	12
AG-1_29	0.0734	47	0.00175	8	1.46712	1.88666	14	0.282373	28	0.282357	-3.9	1.0	1.50	471	8
AG-1_29b	0.1062	39	0.00263	5	1.46713	1.88670	19	0.282350	27	0.282326	-5.0	1.0	1.56	449	7
AG-1_39	0.0944	57	0.00235	15	1.46720	1.88687	16	0.282358	29	0.282337	-4.7	1.0	1.54	482	13
AG-1_39b	0.1251	96	0.00291	20	1.46731	1.88699	28	0.282436	33	0.282416	-4.4	1.2	1.43	371	11
AG-1_41	0.0328	18	0.00107	6	1.46717	1.88673	11	0.281117	31	0.281060	1.1	1.1	3.07	2735	22
AG-1_41b	0.0552	55	0.00141	14	1.46714	1.88666	17	0.282374	26	0.282360	-3.6	0.9	1.49	495	10
AG-1_41c	0.0704	75	0.00182	20	1.46715	1.88672	12	0.282349	37	0.282332	-4.8	1.3	1.55	482	10
AG-1_43	0.0986	146	0.00237	32	1.46715	1.88668	15	0.282390	25	0.282369	-3.6	0.9	1.48	481	10
AG-1_43b	0.0040	5	0.00013	2	1.46720	1.88683	10	0.282454	45	0.282454	-3.4	1.6	1.36	356	7
AG-1_45	0.0456	54	0.00109	10	1.46729	1.88697	16	0.282361	26	0.282351	-4.7	0.9	1.52	459	8
AG-1_46	0.0717	214	0.00163	49	1.46717	1.88680	28	0.282548	28	0.282537	-0.5	1.0	1.21	352	8
AG-1_46b	0.0045	3	0.00009	0	1.46725	1.88685	28	0.282458	25	0.282457	-3.4	0.9	1.36	348	7
AG-1_47	0.1076	100	0.00242	17	1.46720	1.88686	18	0.282354	30	0.282333	-5.5	1.1	1.55	453	9
AG-1_47b	0.0795	96	0.00186	18	1.46714	1.88672	26	0.282612	47	0.282600	1.5	1.7	1.10	343	7
AG-1_49	0.0506	20	0.00129	2	1.46725	1.88686	15	0.282337	25	0.282325	-5.4	0.9	1.56	484	10
AG-1_49b	0.0229	36	0.00063	9	1.46733	1.88698	12	0.282450	40	0.282446	-3.8	1.4	1.38	350	8
AG-1_51	0.1578	34	0.00375	10	1.46731	1.88697	20	0.282385	29	0.282352	-4.5	1.0	1.52	466	14
AG-1_51b	0.0384	32	0.00112	8	1.46727	1.88697	7	0.282533	43	0.282526	-0.6	1.5	1.23	365	7
AG-1_52	0.0600	62	0.00142	12	1.46727	1.88690	13	0.282337	25	0.282323	-4.9	0.9	1.56	496	10
AG-1_52b	0.1281	29	0.00313	10	1.46724	1.88686	28	0.282444	24	0.282422	-4.0	0.9	1.42	376	7
MT-3_1	0.1134	152	0.00267	36	1.46721	1.88691	14	0.282467	30	0.282443	-1.2	1.1	1.35	469	9
MT-3_2	0.0883	66	0.00207	12	1.46712	1.88668	18	0.282431	25	0.282414	-3.1	0.9	1.41	433	9
MT-3_3	0.0386	18	0.00103	5	1.46715	1.88676	12	0.281063	25	0.281008	0.3	0.9	3.15	2786	22
MT-3_4	0.0867	56	0.00204	16	1.46728	1.88695	20	0.282473	35	0.282454	-0.5	1.2	1.32	485	9
MT-3_6	0.0333	10	0.00093	3	1.46731	1.88699	19	0.282267	24	0.282256	-4.3	0.9	1.64	625	12
MT-3_8	0.0464	12	0.00117	3	1.46721	1.88687	12	0.282257	26	0.282244	-6.1	0.9	1.68	565	10
MT-3_9	0.0433	40	0.00104	10	1.46721	1.88683	20	0.282363	26	0.282350	-0.7	0.9	1.46	638	11
MT-3_10	0.0550	18	0.00135	5	1.46731	1.88696	15	0.282444	26	0.282432	-1.1	0.9	1.36	494	9
MT-3_12	0.0588	28	0.00151	7	1.46713	1.88666	10	0.281353	29	0.281283	1.3	1.0	2.79	2406	33
MT-3_14	0.0449	25	0.00106	4	1.46714	1.88669	12	0.281578	34	0.281537	1.9	1.2	2.46	2037	15
MT-3_15	0.0530	29	0.00129	6	1.46723	1.88687	15	0.282430	25	0.282419	-2.2	0.9	1.39	495	10
MT-3_16	0.0842	15	0.00200	4	1.46713	1.88668	17	0.282467	24	0.282450	-1.2	0.9	1.34	494	11
MT-3_17	0.1364	95	0.00320	21	1.46729	1.88698	18	0.282459	34	0.282429	-1.1	1.2	1.36	501	8
MT-3_25	0.0773	11	0.00186	2	1.46729	1.88695	12	0.282436	24	0.282419	-1.8	0.9	1.38	487	7
MT-3_26	0.0610	27	0.00145	6	1.46719	1.88674	17	0.282441	24	0.282427	-1.1	0.8	1.36	503	7
MT-3_27	0.0803	30	0.00185	5	1.46715	1.88672	17	0.282429	24	0.282411	-1.6	0.9	1.39	505	6

MT-3_28	0.0727	16	0.00174	5	1.46718	1.88680	18	0.282443	24	0.282427	-1.4	0.8	1.37	491	6
MT-3_29	0.0575	14	0.00146	2	1.46731	1.88699	17	0.282436	34	0.282423	-1.4	1.2	1.37	498	6
MT-3_30	0.0760	22	0.00180	4	1.46714	1.88669	19	0.282448	27	0.282431	-1.1	1.0	1.36	500	7
MT-3_32	0.0307	24	0.00071	5	1.46726	1.88686	13	0.282155	28	0.282147	-9.1	1.0	1.85	589	9
MT-3_33	0.1092	57	0.00251	9	1.46722	1.88690	17	0.282463	29	0.282440	-0.9	1.0	1.34	490	8
GJ-1 ^g , n=13	0.0110	44	0.00031	4	1.46719	1.88678	12	0.282018	20	0.282014	-13.4	0.7	2.09	609	6

^a $^{176}\text{Yb}/^{177}\text{Hf} = (^{176}\text{Yb}/^{173}\text{Yb})_{\text{true}} \times (^{173}\text{Yb}/^{177}\text{Hf})_{\text{meas}} \times (M_{173(\text{Yb})}/M_{177(\text{Hf})})^{\beta(\text{Hf})}$. The $^{176}\text{Lu}/^{177}\text{Hf}$ were calculated in a similar way by using the $^{175}\text{Lu}/^{177}\text{Hf}$. Quoted uncertainties (absolute) relate to the last quoted figure.

^b Mean Hf signal in volt.

^c Uncertainties are quadratic additions of the within-run precision and the daily reproducibility of the GJ1 zircon. Uncertainties for the JMC475, and GJ-1 are 2SD

^d calculated using a decay constant of 1.867×10^{-10} , a CHUR $^{176}\text{Lu}/^{177}\text{Lu}$ and $^{176}\text{Hf}/^{177}\text{Hf}$ ratio of 0.0332 and 0.282772, and the ages obtained by LA-ICP-MS.

^e two stage model age using the measured $^{176}\text{Lu}/^{177}\text{Lu}$ of each spot (first stage = age of zircon), a value of 0.010 for the average continental crust (second stage), and a depleted mantle $^{176}\text{Lu}/^{177}\text{Lu}$ and $^{176}\text{Hf}/^{177}\text{Hf}$ of 0.0384 and 0.28325, respectively.

^f U-Pb zircon ages

^g mean $\pm 2\sigma$ standard deviation of 13 spot analyses of GJ-1 reference zircon