Table ESI 1. LA-ICP-MS U-Pb single spot analyses for zircon reference material Temora at varied laser energy densities.

Analysis	$^{206}Pb/^{238}U \pm 2\sigma$	$^{207}Pb/^{235}U \pm 2\sigma$	$^{206}Pb/^{238}U \pm 2\sigma$ age (Ma)	$^{207}Pb/^{235}U \pm 2\sigma$ age (Ma)	ρ
TmrF1.6#1	0.06460 ± 0.00053	0.4879 ± 0.0059	403.5 ± 3.2	403.7 ± 4.1	0.362
TmrF1.6#2	0.06483 ± 0.00045	0.4942 ± 0.0060	404.9 ± 2.7	407.9 ± 4.1	0.569
TmrF1.6#3	0.06453 ± 0.00042	0.4932 ± 0.0050	403.3 ± 2.5	406.9 ± 3.4	0.372
TmrF1.6#4	0.06513 ± 0.00052	0.4965 ± 0.0092	406.7 ± 3.2	408.7 ± 6.2	0.406
TmrF1.6#5	0.06530 ± 0.00057	0.4924 ± 0.0090	407.8 ± 3.5	405.9 ± 6.1	0.349
TmrF1.6#6	0.06474 ± 0.00053	0.4950 ± 0.0066	404.4 ± 3.2	408.4 ± 4.4	0.358
TmrF1.6#7	0.06483 ± 0.00058	0.4949 ± 0.0068	404.9 ± 3.5	408.4 ± 4.7	0.471
TmrF1.6#8	0.06489 ± 0.00055	0.4983 ± 0.0072	405.2 ± 3.3	410.7 ± 4.8	0.354
TmrF1.6#9	0.06485 ± 0.00059	0.4878 ± 0.0062	405.0 ± 3.6	403.1 ± 4.2	0.449
TmrF1.8#1	0.06639 ± 0.00057	0.5000 ± 0.0071	414.3 ± 3.5	411.8 ± 4.8	0.401
TmrF1.8#2	0.06530 ± 0.00053	0.4969 ± 0.0058	407.8 ± 3.2	409.7 ± 4.0	0.471
TmrF1.8#3	0.06594 ± 0.00055	0.4914 ± 0.0061	412.3 ± 3.2	406.1 ± 4.1	0.328
TmrF1.8#4	0.06526 ± 0.00052	0.4999 ± 0.0070	407.5 ± 3.1	412.3 ± 4.6	0.304
TmrF1.8#5	0.06720 ± 0.00057	0.5080 ± 0.0086	419.2 ± 3.4	418.4 ± 6.0	0.456
TmrF1.8#6	0.06688 ± 0.00056	0.5125 ± 0.0093	417.6 ± 3.4	420.2 ± 6.1	0.139
TmrF1.8#7	0.06653 ± 0.00058	0.5059 ± 0.0087	415.5 ± 3.5	415.1 ± 5.9	0.440
TmrF1.8#8	0.06629 ± 0.00046	0.5004 ± 0.0068	413.8 ± 2.8	411.6 ± 4.6	0.403
TmrF1.8#9	0.06572 ± 0.00045	0.5042 ± 0.0057	410.3 ± 2.7	414.3 ± 3.8	0.565
TmrF2.1#1	0.06641 ± 0.00046	0.5092 ± 0.0055	414.5 ± 2.8	417.7 ± 3.7	0.440
TmrF2.1#2	0.06719 ± 0.00042	0.5052 ± 0.0060	419.2 ± 2.5	415.0 ± 4.1	0.394
TmrF2.1#3	0.06607 ± 0.00041	0.5089 ± 0.0064	412.4 ± 2.5	417.4 ± 4.3	0.356
TmrF2.1#4	0.06592 ± 0.00049	0.5052 ± 0.0072	411.5 ± 2.9	414.9 ± 4.8	0.377
TmrF2.1#5	0.06638 ± 0.00058	0.5061 ± 0.0060	414.3 ± 3.5	415.6 ± 4.0	0.378
TmrF2.1#6	0.06698 ± 0.00049	0.4987 ± 0.0054	417.9 ± 2.9	410.6 ± 3.7	0.376
TmrF2.1#7	0.06721 ± 0.00052	0.5118 ± 0.0089	419.3 ± 3.1	419.7 ± 6.1	0.301
TmrF2.1#8	0.06698 ± 0.00048	0.5093 ± 0.0063	417.9 ± 2.9	418.1 ± 4.2	0.440
TmrF2.1#9	0.06621 ± 0.00047	0.5035 ± 0.0061	413.3 ± 2.9	413.8 ± 4.1	0.423
TmrF2.3#1	0.06954 ± 0.00044	0.5322 ± 0.0063	433.4 ± 2.6	433.4 ± 4.2	0.433
TmrF2.3#2	0.06827 ± 0.00053	0.5171 ± 0.0076	425.7 ± 3.2	423.3 ± 5.0	0.294
TmrF2.3#3	0.06763 ± 0.00045	0.5166 ± 0.0062	421.8 ± 2.7	423.0 ± 4.2	0.457
TmrF2.3#4	0.06711 ± 0.00043	0.5111 ± 0.0037	418.7 ± 2.6	419.1 ± 2.5	0.635
TmrF2.3#5	0.06719 ± 0.00045	0.5028 ± 0.0078	419.2 ± 2.7	413.8 ± 5.3	0.224
TmrF2.3#6	0.06703 ± 0.00048	0.5109 ± 0.0073	418.2 ± 2.9	420.0 ± 4.7	0.481
TmrF2.3#7	0.06624 ± 0.00040	0.5051 ± 0.0053	413.4 ± 2.4	414.9 ± 3.6	0.337
TmrF2.3#8	0.06769 ± 0.00044	0.5183 ± 0.0051	422.2 ± 2.7	423.8 ± 3.4	0.456
TmrF2.6#1	0.06869 ± 0.00048	0.5229 ± 0.0088	428.2 ± 2.9	427.7 ± 5.8	0.390
TmrF2.6#2	0.06813 ± 0.00039	0.5167 ± 0.0068	424.9 ± 2.4	422.6 ± 4.5	0.430
TmrF2.6#3	0.06887 ± 0.00049	0.5270 ± 0.0057	429.3 ± 3.0	429.6 ± 3.8	0.309
TmrF2.6#4	0.06754 ± 0.00050	0.5169 ± 0.0063	421.3 ± 3.0	423.2 ± 4.3	0.337
TmrF2.6#5	0.06882 ± 0.00054	0.5190 ± 0.0080	429.0 ± 3.3	424.0 ± 5.3	0.235
TmrF2.6#6	0.06921 ± 0.00047	0.5185 ± 0.0066	431.4 ± 2.8	424.3 ± 4.4	0.301
TmrF2.6#7	0.06788 ± 0.00051	0.5183 ± 0.0049	423.3 ± 3.1	423.8 ± 3.3	0.509
TmrF2.8#1	0.06877 ± 0.00047	0.5280 ± 0.0056	428.7 ± 2.8	430.6 ± 3.7	0.415
TmrF2.8#2	0.06868 ± 0.00040	0.5267 ± 0.0072	428.5 ± 2.5	430.3 ± 4.9	0.241
TmrF2.8#3	0.06908 ± 0.00046	0.5211 ± 0.0069	430.6 ± 2.8	426.0 ± 4.7	0.444
TmrF2.8#4	0.06909 ± 0.00043	0.5203 ± 0.0065	430.7 ± 2.6	425.5 ± 4.4	0.230
TmrF2.8#5	0.06937 ± 0.00042	0.5319 ± 0.0079	432.3 ± 2.5	433.7 ± 5.2	0.237
TmrF2.8#6	0.06893 ± 0.00047	0.5276 ± 0.0055	429.7 ± 2.8	430.4 ± 3.6	0.484
TmrF2.8#7	0.06872 ± 0.00053	0.5287 ± 0.0082	428.4 ± 3.2	430.5 ± 5.5	0.345
TmrF2.8#8	0.06986 ± 0.00047	0.5239 ± 0.0078	435.3 ± 2.8	427.3 ± 5.2	0.373

Samples were calibrated against Temora ablated at 2.08 J cm^{-2} (analyses ID: TmrF2.1).

Table ESI 2. LA-ICP-MS U-Pb single spot analyses for annealed and natural zircons preformed at The University of Melbourne.

Analysis	$^{206}Pb/^{238}U \pm 2\sigma$	$^{207}Pb/^{235}U \pm 2\sigma$	$^{206}Pb/^{238}U \pm 2\sigma$ age (Ma)	$^{207}Pb/^{235}U \pm 2\sigma$ age (Ma)	ρ
TmrN#1	0.06717 ± 0.00079	0.5090 ± 0.0180	419.1 ± 4.8	417 ± 12	0.159
TmrN#2	0.06660 ± 0.00082	0.5110 ± 0.0160	415.6 ± 5.0	419 ± 10	0.054
TmrN#3	0.06624 ± 0.00087	0.5080 ± 0.0170	413.4 ± 5.3	418 ± 12	0.049
TmrN#4	0.06631 ± 0.00095	0.4800 ± 0.0220	414.4 ± 5.8	398 ± 15	0.021
TmrN#5	0.06665 ± 0.00094	0.5030 ± 0.0190	415.9 ± 5.7	416 ± 13	0.110
TmrN#6	0.06727 ± 0.00096	0.5300 ± 0.0230	419.6 ± 5.8	429 ± 15	0.315
TmrN#7	0.06629 ± 0.00094	0.5200 ± 0.0230	413.7 ± 5.7	426 ± 15	0.183
TmrN#8	0.06680 ± 0.00100	0.5040 ± 0.0220	416.5 ± 6.1	413 ± 15	0.052
TmrN#9	0.06659 ± 0.00079	0.4950 ± 0.0150	415.6 ± 4.8	407 ± 10	0.193
TmrN#10	0.06697 ± 0.00078	0.5170 ± 0.0150	417.8 ± 4.7	423 ± 10	0.126
PlsN#1	0.05388 ± 0.00056	0.3930 ± 0.0110	338.2 ± 3.4	335.9 ± 8.3	0.240
PlsN#2	0.05358 ± 0.00044	0.4190 ± 0.0110	336.4 ± 2.7	354.5 ± 7.8	0.028
PlsN#3	0.05408 ± 0.00080	0.3887 ± 0.0091	339.5 ± 4.9	333.7 ± 6.5	0.275
PlsN#4	0.05379 ± 0.00045	0.3930 ± 0.0100	337.7 ± 2.8	337.3 ± 7.1	0.241
PlsN#5	0.05422 ± 0.00063	0.4079 ± 0.0086	340.4 ± 3.9	346.8 ± 6.2	0.497
PlsN#6	0.05329 ± 0.00046	0.3947 ± 0.0082	334.7 ± 2.8	338.0 ± 5.9	0.199
PlsN#7	0.05389 ± 0.00052	0.3939 ± 0.0090	338.3 ± 3.2	336.7 ± 6.6	0.151
PlsN#8	0.05359 ± 0.00053	0.3840 ± 0.0086	336.9 ± 3.3	330.2 ± 6.4	0.304
PlsN#9	0.05402 ± 0.00054	0.3960 ± 0.0110	339.1 ± 3.3	337.6 ± 8.0	0.038
QGNGn#1	0.33450 ± 0.00330	5.1450 ± 0.0680	1859 ± 16	1844 ± 11	0.530
QGNGn#2	0.33910 ± 0.00290	5.3010 ± 0.0610	1882 ± 14	1868 ± 9.8	0.676
QGNGn#3	0.33660 ± 0.00240	5.1870 ± 0.0530	1870 ± 12	1851 ± 8.7	0.508
QGNGn#4	0.32960 ± 0.00280	5.1260 ± 0.0570	1836 ± 14	1839 ± 9.4	0.352
QGNGn#5	0.33350 ± 0.00310	5.1610 ± 0.0640	1855 ± 15	1846 ± 11	0.436
QGNGn#6	0.33380 ± 0.00330	5.1750 ± 0.0710	1858 ± 16	1847 ± 12	0.460
QGNGn#7	0.33710 ± 0.00300	5.1530 ± 0.0760	1872 ± 14	1843 ± 12	0.394
QGNGn#8	0.33270 ± 0.00350	5.2670 ± 0.0780	1851 ± 17	1863 ± 13	0.347
QGNGn#9	0.33700 ± 0.00310	5.2200 ± 0.0800	1874 ± 15	1858 ± 13	0.339
TmrA#1	0.06680 ± 0.00110	0.5210 ± 0.0240	416.6 ± 6.8	422 ± 16	0.024
TmrA#2	0.06650 ± 0.00120	0.4920 ± 0.0220	415.2 ± 7.2	405 ± 14	0.219
TmrA#3	0.06530 ± 0.00120	0.5100 ± 0.0230	407.5 ± 7.1	417 ± 16	0.190
TmrA#4	0.06680 ± 0.00120	0.5120 ± 0.0320	416.4 ± 7.3	416 ± 22	0.011
TmrA#5	0.06670 ± 0.00120	0.5230 ± 0.0280	416.2 ± 7.4	423 ± 19	0.255
TmrA#6	0.06570 ± 0.00120	0.5100 ± 0.0210	409.9 ± 7.0	421 ± 14	0.132
TmrA#7	0.06450 ± 0.00110	0.5070 ± 0.0230	402.8 ± 6.7	415 ± 16	0.162
TmrA#8	0.06780 ± 0.00110	0.5160 ± 0.0260	423.0 ± 6.7	423 ± 17	0.069
TmrA#9	0.06710 ± 0.00100	0.5080 ± 0.0160	418.7 ± 6.1	417 ± 11	0.225
TmrA#10	0.06590 ± 0.00120	0.5030 ± 0.0270	412.1 ± 7.4	420 ± 18	0.215
PlsA#1	0.05397 ± 0.00068	0.3861 ± 0.0080	338.8 ± 4.1	331.1 ± 5.9	0.266
PlsA#2	0.05410 ± 0.00087	0.3970 ± 0.0100	339.6 ± 5.3	338.5 ± 7.5	0.315
PlsA#3	0.05304 ± 0.00074	0.3924 ± 0.0095	333.1 ± 4.5	335.5 ± 6.9	0.354
PlsA#4	0.05338 ± 0.00087	0.3940 ± 0.0120	335.2 ± 5.3	336.2 ± 8.9	0.200
PlsA#5	0.05430 ± 0.00077	0.3974 ± 0.0095	340.8 ± 4.7	339.1 ± 6.9	0.466
PlsA#6	0.05313 ± 0.00055	0.3910 ± 0.0110	333.7 ± 3.4	336.3 ± 8.2	0.073
PlsA#7	0.05343 ± 0.00083	0.4123 ± 0.0092	335.5 ± 5.1	349.9 ± 6.6	0.354
PlsA#8	0.05432 ± 0.00079	0.3900 ± 0.0100	341.0 ± 4.8	333.7 ± 7.5	0.405
PlsA#9	0.05336 ± 0.00084	0.3940 ± 0.0120	335.1 ± 5.1	338.1 ± 8.2	0.423
PlsA#10	0.05257 ± 0.00054	0.3989 ± 0.0098	330.3 ± 3.3	340.2 ± 7.1	0.213
QGNGa#1	0.33120 ± 0.00350	5.1190 ± 0.0730	1844 ± 17	1840 ± 12	0.554
QGNGa#2	0.32950 ± 0.00300	5.1330 ± 0.0570	1837 ± 14	1845 ± 8.5	0.510
QGNGa#3	0.33050 ± 0.00280	5.1150 ± 0.0630	1841 ± 13	1838 ± 10	0.530
QGNGa#4	0.33110 ± 0.00550	5.1600 ± 0.1000	1842 ± 27	1844 ± 17	0.496
QGNGa#5	0.33000 ± 0.00300	5.1030 ± 0.0710	1838 ± 15	1838 ± 12	0.460
QGNGa#6	0.32820 ± 0.00310	5.0990 ± 0.0720	1829 ± 15	1836 ± 12	0.391
QGNGa#7	0.33460 ± 0.00290	5.1910 ± 0.0650	1862 ± 14	1853 ± 10	0.348
QGNGa#8	0.33310 ± 0.00300	5.1380 ± 0.0580	1853 ± 14	1842 ± 9.8	0.423
QGNGa#9	0.33390 ± 0.00430	5.2060 ± 0.0840	1856 ± 21	1853 ± 14	0.551
QGNGa#10	0.32930 ± 0.00290	5.1360 ± 0.0640	1835 ± 14	1842 ± 11	0.375

Samples were calibrated against Temora (analyses ID: TmrN).

Table ESI 3. LA-ICP-MS U-Pb single spot analyses for annealed and natural zircons preformed at Curtin University.

Analysis	$^{206}Pb/^{238}U \pm 2\sigma$	$^{207}Pb/^{235}U \pm 2\sigma$	$^{206}Pb/^{238}U \pm 2\sigma$ age (Ma)	$^{207}Pb/^{235}U \pm 2\sigma$ age (Ma)	ρ
TmrcN#1	0.0656 ± 0.0022	0.524 ± 0.0460	409.0 ± 13.0	433 ± 31	0.100
TmrcN#2	0.0674 ± 0.0027	0.472 ± 0.0620	422.0 ± 16.0	387 ± 45	0.064
TmrcN#3	0.0667 ± 0.0026	0.507 ± 0.0510	416.0 ± 16.0	400 ± 35	0.010
TmrcN#4	0.0671 ± 0.0020	0.497 ± 0.0460	418.0 ± 12.0	412 ± 29	0.030
TmrcN#5	0.0659 ± 0.0015	0.507 ± 0.0310	411.3 ± 9.3	415 ± 20	0.033
TmrcN#6	0.0676 ± 0.0019	0.515 ± 0.0310	422.0 ± 11.0	420 ± 21	0.132
TmrcN#7	0.0670 ± 0.0016	0.503 ± 0.0350	417.7 ± 9.4	405 ± 24	0.064
TmrcN#8	0.0657 ± 0.0015	0.529 ± 0.0310	409.9 ± 8.8	428 ± 21	0.293
TmrcN#9	0.0677 ± 0.0019	0.476 ± 0.0400	422.0 ± 12.0	404 ± 28	0.002
TmrcN#10	0.0679 ± 0.0026	0.479 ± 0.0640	423.0 ± 16.0	377 ± 44	0.032
TmrcN#11	0.0668 ± 0.0018	0.486 ± 0.0410	416.0 ± 11.0	404 ± 29	0.062
TmrcN#12	0.0662 ± 0.0018	0.538 ± 0.0400	413.0 ± 11.0	430 ± 27	0.222
TmrcN#13	0.0671 ± 0.0020	0.493 ± 0.0360	419.0 ± 12.0	400 ± 24	0.130
TmrcN#14	0.0665 ± 0.0019	0.529 ± 0.0380	415.0 ± 11.0	429 ± 25	0.245
TmrcN#15	0.0660 ± 0.0019	0.531 ± 0.0410	412.0 ± 11.0	425 ± 28	0.131
TmrcN#16	0.0664 ± 0.0017	0.494 ± 0.0350	414.0 ± 10.0	419 ± 25	0.120
TmrcN#17	0.0661 ± 0.0020	0.498 ± 0.0460	415.0 ± 12.0	410 ± 31	0.075
TmrcN#18	0.0692 ± 0.0018	0.504 ± 0.0320	431.0 ± 11.0	417 ± 22	0.257
TmrcN#19	0.0684 ± 0.0017	0.504 ± 0.0420	426.0 ± 10.0	413 ± 29	0.254
TmrcN#20	0.0666 ± 0.0018	0.512 ± 0.0320	415.0 ± 11.0	424 ± 22	0.184
TmrcN#21	0.0677 ± 0.0018	0.504 ± 0.0390	422.0 ± 11.0	413 ± 27	0.231
TmrcN#22	0.0657 ± 0.0014	0.526 ± 0.0340	410.3 ± 8.4	425 ± 23	0.140
TmrcN#23	0.0649 ± 0.0017	0.488 ± 0.0380	405.0 ± 10.0	395 ± 26	0.098
PlscN#1	0.0550 ± 0.0011	0.400 ± 0.0210	345.2 ± 6.5	341 ± 15	0.258
PlscN#2	0.0537 ± 0.0013	0.406 ± 0.0200	338.1 ± 7.9	344 ± 14	0.116
PlscN#3	0.0553 ± 0.0011	0.399 ± 0.0200	347.1 ± 6.8	339 ± 14	0.232
PlscN#4	0.0536 ± 0.0013	0.381 ± 0.0200	336.7 ± 8.0	327 ± 14	0.259
PlscN#5	0.0538 ± 0.0013	0.397 ± 0.0210	337.7 ± 8.1	339 ± 15	0.329
PlscN#6	0.0551 ± 0.0011	0.387 ± 0.0170	345.5 ± 6.7	332 ± 12	0.078
PlscN#7	0.0544 ± 0.0011	0.426 ± 0.0230	341.4 ± 6.9	357 ± 16	0.198
PlscN#8	0.0559 ± 0.0014	0.407 ± 0.0220	350.4 ± 8.3	344 ± 15	0.395
PlscN#9	0.0545 ± 0.0017	0.417 ± 0.0200	343.0 ± 10.0	351 ± 14	0.324
PlscN#10	0.0535 ± 0.0016	0.399 ± 0.0210	337.0 ± 9.8	342 ± 16	0.484
PlscN#11	0.0540 ± 0.0012	0.402 ± 0.0170	338.9 ± 7.5	343 ± 12	0.303
PlscN#12	0.0538 ± 0.0011	0.411 ± 0.0180	337.4 ± 7.0	350 ± 13	0.218
PlscN#13	0.0538 ± 0.0012	0.417 ± 0.0200	339.2 ± 7.7	356 ± 14	0.375
PlscN#14	0.0549 ± 0.0013	0.400 ± 0.0200	344.1 ± 8.0	344 ± 15	0.295
PlscN#15	0.0544 ± 0.0012	0.398 ± 0.0180	341.2 ± 7.1	339 ± 13	0.340
QGNGcN#1	0.3379 ± 0.0084	5.24 ± 0.15	1876 ± 40	1866 ± 24	0.525
QGNGcN#2	0.3373 ± 0.0059	5.23 ± 0.15	1871 ± 28	1859 ± 23	0.585
QGNGcN#3	0.3401 ± 0.0058	5.18 ± 0.13	1885 ± 28	1844 ± 22	0.504
QGNGcN#4	0.3436 ± 0.0062	5.27 ± 0.13	1905 ± 30	1858 ± 21	0.501
QGNGcN#5	0.3444 ± 0.0066	5.56 ± 0.13	1911 ± 32	1908 ± 20	0.448
QGNGcN#6	0.3468 ± 0.0085	5.55 ± 0.17	1915 ± 40	1904 ± 27	0.696
QGNGcN#7	0.3394 ± 0.0071	5.45 ± 0.13	1881 ± 34	1887 ± 21	0.513
QGNGcN#8	0.3457 ± 0.0062	5.64 ± 0.12	1915 ± 30	1919 ± 18	0.363
QGNGcN#9	0.3331 ± 0.0062	5.52 ± 0.12	1851 ± 30	1899 ± 19	0.559
QGNGcN#10	0.3373 ± 0.0048	5.39 ± 0.12	1874 ± 23	1889 ± 19	0.468
QGNGcN#11	0.3377 ± 0.0061	5.37 ± 0.12	1873 ± 29	1878 ± 19	0.434
QGNGcN#12	0.3339 ± 0.0058	5.39 ± 0.15	1855 ± 28	1881 ± 24	0.404
QGNGcN#13	0.3368 ± 0.0050	5.27 ± 0.13	1870 ± 24	1860 ± 21	0.276
TmrcA#1	0.0661 ± 0.0017	0.538 ± 0.036	412.0 ± 10.0	438 ± 24	0.219
TmrcA#2	0.0642 ± 0.0016	0.499 ± 0.036	401.1 ± 9.7	413 ± 25	0.035
TmrcA#3	0.0665 ± 0.0020	0.501 ± 0.041	415.0 ± 12.0	397 ± 27	0.111
TmrcA#4	0.0669 ± 0.0018	0.502 ± 0.047	417.0 ± 11.0	412 ± 31	0.212
TmrcA#5	0.0667 ± 0.0017	0.470 ± 0.035	416.0 ± 10.0	387 ± 23	0.143
TmrcA#6	0.0668 ± 0.0015	0.484 ± 0.030	416.8 ± 9.3	398 ± 21	0.006
TmrcA#7	0.0635 ± 0.0017	0.513 ± 0.032	399.0 ± 10.0	417 ± 22	0.179
TmrcA#8	0.0653 ± 0.0016	0.531 ± 0.034	407.6 ± 9.6	435 ± 23	0.102
TmrcA#9	0.0651 ± 0.0015	0.531 ± 0.036	406.6 ± 9.3	423 ± 24	0.282
TmrcA#10	0.0655 ± 0.0020	0.513 ± 0.041	409.0 ± 12.0	408 ± 27	0.137
TmrcA#11	0.0654 ± 0.0017	0.521 ± 0.035	408.0 ± 10.0	419 ± 24	0.203
TmrcA#12	0.0660 ± 0.0021	0.515 ± 0.041	412.0 ± 13.0	420 ± 28	0.242
TmrcA#13	0.0676 ± 0.0014	0.532 ± 0.026	421.4 ± 8.3	433 ± 17	0.326

Table ESI 4. (cont.)

Analysis	$^{206}Pb/^{238}U \pm 2\sigma$	$^{207}Pb/^{235}U \pm 2\sigma$	$^{206}Pb/^{238}U \pm 2\sigma$ age (Ma)	$^{207}Pb/^{235}U \pm 2\sigma$ age (Ma)	ρ
PlscA#1	0.0538 ± 0.0014	0.424 ± 0.02	337.7 ± 8.4	359 ± 15	0.3731
PlscA#2	0.0547 ± 0.0011	0.403 ± 0.015	344.1 ± 6.7	342 ± 11	0.1670
PlscA#3	0.0529 ± 0.0014	0.361 ± 0.017	332.2 ± 8.5	311 ± 13	0.0868
PlscA#4	0.0532 ± 0.0010	0.372 ± 0.014	334.0 ± 6.1	319 ± 10	0.3643
PlscA#5	0.0543 ± 0.0013	0.396 ± 0.021	340.5 ± 7.8	336 ± 15	0.2305
PlscA#6	0.0547 ± 0.0010	0.398 ± 0.016	343.4 ± 6.1	339 ± 12	0.2743
PlscA#7	0.0547 ± 0.0011	0.417 ± 0.02	343.0 ± 6.9	352 ± 14	0.2488
PlscA#8	0.0526 ± 0.0009	0.411 ± 0.019	330.3 ± 5.7	349 ± 14	0.2654
PlscA#9	0.0529 ± 0.0012	0.405 ± 0.018	332.0 ± 7.3	344 ± 13	0.0816
PlscA#10	0.0527 ± 0.0012	0.403 ± 0.019	332.5 ± 7.3	344 ± 14	0.0911
PlscA#11	0.0546 ± 0.0009	0.414 ± 0.017	342.4 ± 5.7	352 ± 12	0.3082
PlscA#12	0.0534 ± 0.0011	0.418 ± 0.018	335.0 ± 6.9	355 ± 12	0.2985
PlscA#13	0.0529 ± 0.0010	0.397 ± 0.019	332.0 ± 5.9	338 ± 14	0.1185
PlscA#14	0.0542 ± 0.0010	0.395 ± 0.019	339.9 ± 6.4	339 ± 14	0.2669
QGNGcA#1	0.3355 ± 0.0057	5.12 ± 0.12	1866 ± 27	1839 ± 19	0.4773
QGNGcA#2	0.3358 ± 0.0063	5.61 ± 0.14	1867 ± 31	1921 ± 21	0.4253
QGNGcA#3	0.3335 ± 0.0058	5.55 ± 0.14	1854 ± 28	1904 ± 23	0.3889
QGNGcA#4	0.3344 ± 0.0057	5.44 ± 0.13	1858 ± 28	1886 ± 21	0.5452
QGNGcA#5	0.3368 ± 0.0055	5.51 ± 0.11	1869 ± 26	1898 ± 17	0.4743
QGNGcA#6	0.3336 ± 0.0057	5.37 ± 0.14	1854 ± 27	1885 ± 22	0.4362
QGNGcA#7	0.3329 ± 0.0056	5.43 ± 0.12	1851 ± 27	1888 ± 19	0.3203
QGNGcA#8	0.3354 ± 0.0063	5.44 ± 0.15	1865 ± 31	1892 ± 24	0.4403
QGNGcA#9	0.3272 ± 0.0065	5.30 ± 0.16	1822 ± 32	1862 ± 26	0.3758
QGNGcA#10	0.3373 ± 0.0054	5.33 ± 0.11	1874 ± 26	1876 ± 18	0.4583
QGNGcA#11	0.3303 ± 0.0055	5.20 ± 0.12	1844 ± 26	1853 ± 20	0.4154
QGNGcA#12	0.3374 ± 0.0062	5.33 ± 0.13	1877 ± 30	1877 ± 21	0.4809

Samples were calibrated against Temora (analyses ID: TmrcN).