

Appendix1-1 LA-ICP-MS U-Pb isotopic data. Discordant data are shown in gray color. ²⁰⁶Pbc: common ²⁰⁶Pb (%).

No.	Isotopic ratios				Age (Ma)			²⁰⁶ Pbc	Th/U
	²⁰⁶ Pb/ ²³⁸ U	²⁰⁷ Pb/ ²³⁵ U	²⁰⁷ Pb/ ²⁰⁶ Pb	²³⁸ U- ²⁰⁶ Pb	²³⁵ U- ²⁰⁷ Pb	²⁰⁷ Pb/ ²⁰⁶ Pb	²⁰⁶ Pbc		
Sample 18021502									
18021502-001	0.02582 ± 0.00117	0.2176 ± 0.0396	0.0611 ± 0.0108	164.4 ± 7.4	199.9 ± 36.4		0.00	0.55	
18021502-002	0.26556 ± 0.00488	4.1468 ± 0.1203	0.1133 ± 0.0025	1518.2 ± 27.9	1663.5 ± 48.3	1853.0 ± 41.6	0.00	0.31	
18021502-003	0.25279 ± 0.00495	4.1942 ± 0.1462	0.1203 ± 0.0035	1452.9 ± 28.4	1672.8 ± 58.3	1962.0 ± 56.6	0.00	0.08	
18021502-004	0.30037 ± 0.00596	4.6512 ± 0.1693	0.1123 ± 0.0034	1693.1 ± 33.6	1758.5 ± 64.0	1838.0 ± 56.1	0.15	0.50	
18021502-005	0.42070 ± 0.00911	8.8315 ± 0.3525	0.1523 ± 0.0051	2263.6 ± 49.0	2320.7 ± 92.6	2372.0 ± 79.5	0.00	0.04	
18021502-006	0.03232 ± 0.00121	0.2387 ± 0.0364	0.0536 ± 0.0079	205.1 ± 7.7	217.3 ± 33.2		0.00	0.51	
18021502-007	0.02881 ± 0.00072	0.2137 ± 0.0181	0.0538 ± 0.0044	183.1 ± 4.6	196.7 ± 16.7		0.00	0.38	
18021502-008	0.50881 ± 0.00929	12.5122 ± 0.2737	0.1784 ± 0.0021	2651.5 ± 48.4	2643.6 ± 57.8	2638.0 ± 31.7	0.00	0.56	
18021502-009	0.30603 ± 0.00590	4.8527 ± 0.1454	0.1150 ± 0.0026	1721.2 ± 33.2	1794.0 ± 53.7	1880.0 ± 43.1	0.00	0.52	
18021502-010	0.15080 ± 0.00362	2.1833 ± 0.1460	0.1050 ± 0.0066	905.5 ± 21.8	1175.7 ± 78.6		0.00	0.68	
18021502-011	0.03117 ± 0.00096	0.2181 ± 0.0283	0.0508 ± 0.0064	197.9 ± 6.1	200.4 ± 26.0		2.49	0.51	
18021502-012	0.03428 ± 0.00119	0.6392 ± 0.0633	0.1352 ± 0.0126	217.3 ± 7.5	501.8 ± 49.7		3.05	0.78	
18021502-013	0.13260 ± 0.00224	1.8214 ± 0.0718	0.0996 ± 0.0036	802.7 ± 13.6	1053.2 ± 41.5		0.18	0.04	
18021502-014	0.04062 ± 0.00085	0.3115 ± 0.0226	0.0556 ± 0.0039	256.7 ± 5.4	275.4 ± 19.9		0.00	0.07	
18021502-015	0.28735 ± 0.00525	4.5715 ± 0.1924	0.1154 ± 0.0044	1628.3 ± 29.7	1744.0 ± 73.4	1886.0 ± 71.5	0.00	0.15	
18021502-016	0.38029 ± 0.00577	7.5962 ± 0.2200	0.1449 ± 0.0036	2077.6 ± 31.5	2184.3 ± 63.3	2287.0 ± 56.4	0.10	0.19	
18021502-017	0.32493 ± 0.00639	4.8580 ± 0.2312	0.1084 ± 0.0047	1813.8 ± 35.7	1794.9 ± 85.4	1774.0 ± 76.9	0.00	1.32	
18021502-018	0.01553 ± 0.00071	0.1318 ± 0.0252	0.0615 ± 0.0114	99.4 ± 4.6	125.7 ± 24.0		3.76	1.27	
18021502-019	0.28703 ± 0.00414	4.3511 ± 0.1229	0.1099 ± 0.0027	1626.7 ± 23.5	1703.0 ± 48.1	1799.0 ± 43.7	0.01	0.08	
18021502-020	0.33159 ± 0.00524	5.1304 ± 0.1789	0.1122 ± 0.0035	1846.1 ± 29.2	1841.1 ± 64.2	1836.0 ± 57.1	0.12	0.34	
18021502-021	0.03399 ± 0.00074	0.2352 ± 0.0198	0.0502 ± 0.0041	215.5 ± 4.7	214.5 ± 18.1		2.07	0.26	
18021502-022	0.29846 ± 0.00481	4.9263 ± 0.1763	0.1197 ± 0.0038	1683.7 ± 27.2	1806.7 ± 64.7	1952.0 ± 62.4	0.55	0.28	
18021502-023	0.04253 ± 0.00125	0.2869 ± 0.0364	0.0489 ± 0.0060	268.5 ± 7.9	256.1 ± 32.5		3.07	0.56	
18021502-024	0.02968 ± 0.00051	0.2417 ± 0.0127	0.0591 ± 0.0029	188.5 ± 3.3	219.8 ± 11.5		1.11	0.25	
18021502-025	0.03157 ± 0.00121	0.2112 ± 0.0369	0.0485 ± 0.0083	200.4 ± 7.7	194.5 ± 34.0		2.73	0.65	
18021502-026	0.34224 ± 0.00513	5.4327 ± 0.1670	0.1151 ± 0.0031	1897.4 ± 28.4	1890.0 ± 58.1	1882.0 ± 50.5	0.00	0.13	
18021502-027	0.34282 ± 0.00493	5.9266 ± 0.1617	0.1254 ± 0.0029	1900.2 ± 27.3	1965.1 ± 53.6	2035.0 ± 47.2	0.00	0.36	
18021502-028	0.32817 ± 0.00757	5.1676 ± 0.1944	0.1142 ± 0.0034	1829.5 ± 42.2	1847.2 ± 69.5	1868.0 ± 55.5	0.00	0.27	
18021502-029	0.03619 ± 0.00145	0.2847 ± 0.0433	0.0571 ± 0.0084	229.2 ± 9.2	254.4 ± 38.7		2.52	0.75	
18021502-030	0.33823 ± 0.00735	5.3455 ± 0.1508	0.1146 ± 0.0021	1878.1 ± 40.8	1876.1 ± 52.9	1874.0 ± 33.7	0.01	0.07	
18021502-031	0.02480 ± 0.00065	0.1859 ± 0.0136	0.0544 ± 0.0037	157.9 ± 4.2	173.1 ± 12.7		0.00	0.32	
18021502-032	0.27125 ± 0.00595	4.1705 ± 0.1243	0.1115 ± 0.0023	1547.1 ± 33.9	1668.2 ± 49.7	1825.0 ± 36.9	0.03	0.28	
18021502-033	0.31079 ± 0.00703	4.9308 ± 0.1704	0.1151 ± 0.0030	1744.6 ± 39.4	1807.5 ± 62.5	1881.0 ± 49.2	0.00	0.33	
18021502-034	0.35008 ± 0.00776	6.4282 ± 0.1996	0.1332 ± 0.0029	1935.0 ± 42.9	2036.1 ± 63.2	2141.0 ± 46.5	0.00	0.26	
18021502-035	0.03152 ± 0.00154	0.1973 ± 0.0436	0.0454 ± 0.0098	200.1 ± 9.8	182.8 ± 40.4		4.27	0.62	
18021502-036	0.23033 ± 0.00528	3.5737 ± 0.1320	0.1125 ± 0.0033	1336.2 ± 30.6	1543.7 ± 57.0	1841.0 ± 53.3	0.00	0.26	
18021502-037	0.36140 ± 0.00584	7.1232 ± 0.2478	0.1430 ± 0.0044	1988.8 ± 32.1	2126.9 ± 74.0	2264.0 ± 69.8	0.00	0.21	
18021502-038	0.03360 ± 0.00259	0.2668 ± 0.0562	0.0576 ± 0.0113	213.0 ± 16.4	240.1 ± 50.6		0.00	0.99	
18021502-039	0.32078 ± 0.00563	4.9380 ± 0.2045	0.1116 ± 0.0042	1793.5 ± 31.5	1808.7 ± 74.9	1827.0 ± 68.5	0.03	0.38	
18021502-040	0.43323 ± 0.00719	9.4644 ± 0.3411	0.1584 ± 0.0051	2320.2 ± 38.5	2384.0 ± 85.9	2440.0 ± 78.1	0.00	0.31	
18021502-041	0.33228 ± 0.00542	5.2844 ± 0.1906	0.1153 ± 0.0037	1849.4 ± 30.2	1866.3 ± 67.3	1886.0 ± 60.7	0.00	0.01	
18021502-042	0.02854 ± 0.00066	0.2132 ± 0.0164	0.0542 ± 0.0040	181.4 ± 4.2	196.2 ± 15.1		0.21	0.16	
18021502-043	0.31651 ± 0.00617	5.0853 ± 0.2441	0.1165 ± 0.0051	1772.7 ± 34.5	1833.6 ± 88.0	1904.0 ± 83.5	0.00	0.79	
18021502-044	0.03000 ± 0.00136	0.2170 ± 0.0318	0.0525 ± 0.0073	190.5 ± 8.6	199.4 ± 29.2		2.27	0.87	
18021502-045	0.28062 ± 0.00487	4.3151 ± 0.1754	0.1115 ± 0.0041	1594.5 ± 27.7	1696.2 ± 68.9	1825.0 ± 67.1	0.25	0.40	
18021502-046	0.02925 ± 0.00144	0.2556 ± 0.0514	0.0634 ± 0.0123	185.9 ± 9.1	231.1 ± 46.4		0.00	0.70	
18021502-047	0.03036 ± 0.00071	0.1995 ± 0.0181	0.0477 ± 0.0042	192.8 ± 4.5	184.7 ± 16.7		0.60	0.43	
18021502-048	0.42083 ± 0.00644	8.9201 ± 0.2440	0.1537 ± 0.0035	2264.2 ± 34.6	2329.8 ± 63.7	2388.0 ± 54.2	0.01	0.11	
18021502-049	0.37453 ± 0.00741	6.5264 ± 0.3086	0.1264 ± 0.0054	2050.7 ± 40.6	2049.4 ± 96.9	2049.0 ± 88.0	0.00	0.62	
18021502-050	0.31210 ± 0.00504	6.0121 ± 0.1895	0.1397 ± 0.0038	1751.1 ± 28.3	1977.5 ± 62.3	2224.0 ± 60.2	0.00	0.22	
18021502-051	0.17548 ± 0.00446	2.6194 ± 0.1900	0.1083 ± 0.0074	1042.2 ± 26.5	1306.1 ± 94.7		1.00	0.32	
18021502-052	0.04214 ± 0.00124	0.5884 ± 0.0533	0.1013 ± 0.0087	266.1 ± 7.8	469.8 ± 42.6		2.58	0.44	
18021502-053	0.30749 ± 0.00358	5.0059 ± 0.1073	0.1181 ± 0.0021	1728.3 ± 20.2	1820.3 ± 39.0	1928.0 ± 34.7	0.00	0.02	
18021502-054	0.31936 ± 0.00369	5.1132 ± 0.1071	0.1161 ± 0.0020	1786.6 ± 20.7	1832.3 ± 38.5	1898.0 ± 33.2	0.00	0.18	
18021502-055	0.27929 ± 0.00368	4.2703 ± 0.1255	0.1109 ± 0.0029	1587.8 ± 20.9	1687.6 ± 49.6	1815.0 ± 47.7	0.24	0.41	
18021502-056	0.31753 ± 0.00371	5.0086 ± 0.1083	0.1144 ± 0.0021	1777.6 ± 20.7	1820.7 ± 39.4	1871.0 ± 34.0	0.00	0.04	
18021502-057	0.43563 ± 0.00630	9.0008 ± 0.2870	0.1499 ± 0.0043	2331.0 ± 33.7	2338.0 ± 74.5	2345.0 ± 66.6	0.00	1.20	
18021502-058	0.03935 ± 0.00112	0.2537 ± 0.0327	0.0468 ± 0.0059	248.8 ± 7.1	229.5 ± 29.6		0.00	0.39	
18021502-059	0.03203 ± 0.00102	0.2211 ± 0.0316	0.0500 ± 0.0070	203.3 ± 6.5	202.8 ± 29.0		0.00	0.57	
18021502-060	0.29909 ± 0.00408	4.6775 ± 0.1470	0.1134 ± 0.0032	1686.8 ± 23.0	1763.2 ± 55.4	1856.0 ± 52.5	0.00	0.21	
18021502-061	0.03843 ± 0.00065	0.3713 ± 0.0205	0.0701 ± 0.0037	243.1 ± 4.1	320.6 ± 17.7		0.00	0.03	
18021502-062	0.30307 ± 0.00681	4.6790 ± 0.1800	0.1120 ± 0.0035	1706.5 ± 38.3	1763.4 ± 67.8	1832.0 ± 57.2	0.07	0.12	
18021502-063	0.34760 ± 0.00751	5.4554 ± 0.1800	0.1138 ± 0.0028	1923.1 ± 41.6	1893.5 ± 62.5	1862.0 ± 46.4	0.00	0.11	
18021502-064	0.02667 ± 0.00067	0.1824 ± 0.0126	0.0496 ± 0.0032	169.7 ± 4.2	170.1 ± 11.7		0.06	0.12	
18021502-065	0.30932 ± 0.00730	4.9514 ± 0.2204	0.1161 ± 0.0044	1737.3 ± 41.0	1811.0 ± 80.6	1897.0 ± 71.6	0.32	0.88	
18021502-066	0.03610 ± 0.00100	0.2469 ± 0.0217	0.0496 ± 0.0041	228.6 ± 6.3	224.0 ± 19.7		1.61	0.33	
18021502-067	0.03621 ± 0.00098	0.2688 ± 0.0218	0.0538 ± 0.0041	229.3 ± 6.2	241.7 ± 19.6		0.00	1.12	
18021502-068	0.35861 ± 0.00778	5.6935 ± 0.1912	0.1151 ± 0.0030	1975.6 ± 42.9	1930.3 ± 64.8	1883.0 ± 48.3	0.09	0.07	
18021502-069	0.03046 ± 0.00095	0.2231 ± 0.0213	0.0531 ± 0.0048	193.4 ± 6.0	204.5 ± 19.6		0.00	0.62	
18021502-070	0.03115 ± 0.00135	0.2613 ± 0.0418	0.0608 ± 0.0094	197.7 ± 8.6	235.7 ± 37.7		1.18	0.58	
18021502-071	0.21785 ± 0.00551	3.3607 ± 0.1358	0.1119 ± 0.0035	1270.5 ± 32.1	1495.2 ± 60.4	1831.0 ± 57.7	0.09	0.10	
18021502-072	0.01630 ± 0.00088	0.1343 ± 0.0294	0.0598 ± 0.0127	104.2 ± 5.6	128.0 ± 28.0		2.13	0.81	
18021502-073	0.03040 ± 0.00121	0.2831 ± 0.0380	0.0675 ± 0.0087	193.1 ± 7.7	253.1 ± 34.0		0.00	0.84	
18021502-074	0.03061 ± 0.00115	0.2226 ± 0.0306	0.0527 ± 0.0070	194.4 ± 7.3	204.1 ± 28.1		0.00	0.59	
18021502-075	0.03138 ± 0.00097	0.2269 ± 0.0212	0.0524 ± 0.0046	199.2 ± 6.2	207.6 ± 19.4		0.00	0.30	
18021502-076	0.33813 ± 0.00881	5.2387 ± 0.2360	0.1124 ± 0.0041	1877.7 ± 48.9	1858.9 ± 83.7	1839.0 ± 67.6	0.00	1.17	
18021502-077	0.04367 ± 0.00196	0.3441 ± 0.0634	0.0571 ± 0.0102	275.6 ± 12.4	300.2 ± 55.3		4.54	0.33	
18021502-078	0.16236 ± 0.00317	2.4076 ± 0.0802	0.1075 ± 0						

Appendix1-2 LA-ICP-MS U-Pb isotopic data. Discordant data are shown in gray color. ²⁰⁶Pbc: common ²⁰⁶Pb (%).

No.	Isotopic ratios				Age (Ma)			²⁰⁶ Pbc	Th/U
	²⁰⁶ Pb/ ²³⁸ U	²⁰⁷ Pb/ ²³⁵ U	²⁰⁷ Pb/ ²⁰⁶ Pb	²³⁸ U- ²⁰⁶ Pb	²³⁵ U- ²⁰⁷ Pb	²⁰⁷ Pb/ ²⁰⁶ Pb	²⁰⁶ Pbc		
18021502-101	0.03487 ± 0.00130	0.2376 ± 0.0371	0.0494 ± 0.0075	221.0 ± 8.2	216.5 ± 33.8		0.00	0.43	
18021502-102	0.29431 ± 0.00604	4.6015 ± 0.1822	0.1134 ± 0.0038	1663.0 ± 34.1	1749.5 ± 69.3	1855.0 ± 62.8	0.01	0.41	
18021502-103	0.03256 ± 0.00089	0.2229 ± 0.0219	0.0496 ± 0.0047	206.6 ± 5.6	204.3 ± 20.1		0.33	0.59	
18021502-104	0.39930 ± 0.00746	8.0151 ± 0.2243	0.1456 ± 0.0030	2165.8 ± 40.5	2232.7 ± 62.5	2295.0 ± 47.8	0.00	0.27	
18021502-105	0.03275 ± 0.00111	0.2414 ± 0.0319	0.0535 ± 0.0068	207.7 ± 7.0	219.5 ± 29.0		0.00	0.82	
18021502-106	0.02923 ± 0.00070	0.2007 ± 0.0157	0.0498 ± 0.0037	185.7 ± 4.5	185.7 ± 14.5		0.00	0.30	
18021502-107	0.04653 ± 0.00223	0.3515 ± 0.0713	0.0548 ± 0.0108	293.2 ± 14.1	305.8 ± 62.0		3.40	0.59	
18021502-108	0.02897 ± 0.00067	0.1996 ± 0.0144	0.0500 ± 0.0034	184.1 ± 4.3	184.8 ± 13.4		0.00	0.27	
18021502-109	0.02588 ± 0.00046	0.1794 ± 0.0132	0.0503 ± 0.0036	164.7 ± 2.9	167.5 ± 12.3		0.00	0.36	
18021502-110	0.03094 ± 0.00078	0.2083 ± 0.0237	0.0488 ± 0.0054	196.4 ± 5.0	192.1 ± 21.9		0.53	0.70	
18021502-111	0.59956 ± 0.00674	21.0454 ± 0.4763	0.2546 ± 0.0050	3028.0 ± 34.1	3140.6 ± 71.1	3214.0 ± 63.1	0.00	0.61	
18021502-112	0.43095 ± 0.00617	9.3491 ± 0.3305	0.1573 ± 0.0051	2310.0 ± 33.1	2372.8 ± 83.9	2428.0 ± 78.5	0.51	0.34	
18021502-113	0.33959 ± 0.00417	5.2342 ± 0.1670	0.1118 ± 0.0033	1884.7 ± 23.2	1858.1 ± 59.3	1829.0 ± 53.9	0.00	0.24	
18021502-114	0.02995 ± 0.00065	0.2010 ± 0.0193	0.0487 ± 0.0046	190.2 ± 4.1	186.0 ± 17.9		0.00	0.19	
18021502-115	0.02688 ± 0.00046	0.1911 ± 0.0133	0.0516 ± 0.0035	171.0 ± 2.9	177.5 ± 12.3		0.00	1.48	
18021502-116	0.31924 ± 0.00358	5.0234 ± 0.1373	0.1141 ± 0.0028	1786.0 ± 20.0	1823.2 ± 49.8	1867.0 ± 46.5	0.14	0.21	
18021502-117	0.31902 ± 0.00340	5.4321 ± 0.1332	0.1235 ± 0.0027	1784.9 ± 19.0	1889.9 ± 46.3	2008.0 ± 44.3	0.00	0.21	
18021502-118	0.01844 ± 0.00053	0.1147 ± 0.0137	0.0451 ± 0.0052	117.8 ± 3.4	110.3 ± 13.2		0.13	0.69	
18021502-119	0.03347 ± 0.00083	0.2529 ± 0.0219	0.0548 ± 0.0046	212.2 ± 5.2	229.0 ± 19.9		0.56	0.40	
18021502-120	0.03412 ± 0.00093	0.2319 ± 0.0246	0.0493 ± 0.0050	216.3 ± 5.9	211.7 ± 22.4		0.54	0.56	
18021502-121	0.03192 ± 0.00106	0.2340 ± 0.0314	0.0532 ± 0.0069	202.5 ± 6.7	213.5 ± 28.6		0.00	0.51	
18021502-122	0.03153 ± 0.00100	0.2004 ± 0.0270	0.0461 ± 0.0060	200.1 ± 6.3	185.4 ± 25.0		0.00	0.51	
18021502-123	0.03033 ± 0.00100	0.2254 ± 0.0299	0.0539 ± 0.0069	192.6 ± 6.4	206.4 ± 27.4		2.48	0.37	
18021502-124	0.33280 ± 0.00630	5.2647 ± 0.1998	0.1147 ± 0.0038	1851.9 ± 35.0	1863.1 ± 70.7	1876.0 ± 61.7	1.68	0.54	
18021502-125	0.02984 ± 0.00069	0.2257 ± 0.0163	0.0549 ± 0.0038	189.5 ± 4.4	206.7 ± 14.9		0.56	0.17	
18021502-126	0.01492 ± 0.00069	0.0845 ± 0.0198	0.0411 ± 0.0094	95.5 ± 4.4	82.4 ± 19.3		2.38	1.75	
18021502-127	0.02550 ± 0.00060	0.1675 ± 0.0134	0.0476 ± 0.0037	162.4 ± 3.8	157.2 ± 12.6		0.06	0.46	
18021502-128	0.03144 ± 0.00097	0.2170 ± 0.0270	0.0501 ± 0.0060	199.6 ± 6.2	199.4 ± 24.8		0.00	0.22	
18021502-129	0.30826 ± 0.00592	4.8448 ± 0.1872	0.1140 ± 0.0038	1732.1 ± 33.3	1792.6 ± 69.3	1864.0 ± 62.5	0.00	0.21	
18021502-130	0.01753 ± 0.00089	0.1628 ± 0.0333	0.0674 ± 0.0134	112.0 ± 5.7	153.1 ± 31.4		1.08	0.61	
18021502-131	0.32945 ± 0.00607	5.2064 ± 0.1799	0.1146 ± 0.0034	1835.7 ± 33.8	1853.6 ± 64.1	1874.0 ± 54.8	0.00	0.18	
18021502-132	0.04501 ± 0.00122	0.3136 ± 0.0314	0.0505 ± 0.0049	283.8 ± 7.7	276.9 ± 27.7		0.00	0.31	
18021502-133	0.03744 ± 0.00135	0.2801 ± 0.0414	0.0543 ± 0.0078	236.9 ± 8.5	250.7 ± 37.1		1.24	0.86	
18021502-134	0.03607 ± 0.00142	0.2594 ± 0.0358	0.0522 ± 0.0069	228.4 ± 9.0	234.2 ± 32.3		0.70	0.48	
18021502-135	0.01596 ± 0.00052	0.1176 ± 0.0107	0.0535 ± 0.0046	102.1 ± 3.3	112.9 ± 10.3		0.00	0.78	
18021502-136	0.02652 ± 0.00096	0.1755 ± 0.0211	0.0480 ± 0.0055	168.7 ± 6.1	164.2 ± 19.8		0.00	0.14	
18021502-137	0.03131 ± 0.00132	0.2368 ± 0.0360	0.0549 ± 0.0080	198.7 ± 8.4	215.8 ± 32.8		0.00	0.63	
18021502-138	0.03176 ± 0.00111	0.2627 ± 0.0269	0.0600 ± 0.0058	201.6 ± 7.0	236.8 ± 24.3		0.00	0.27	
18021502-139	0.02884 ± 0.00093	0.2068 ± 0.0185	0.0520 ± 0.0043	183.3 ± 5.9	190.9 ± 17.1		0.38	0.40	
18021502-140	0.02012 ± 0.00067	0.1356 ± 0.0135	0.0489 ± 0.0046	128.4 ± 4.3	129.1 ± 12.9		0.00	0.83	
18021502-141	0.32111 ± 0.00938	5.0716 ± 0.2531	0.1145 ± 0.0046	1795.2 ± 52.4	1831.3 ± 91.4	1873.0 ± 75.8	0.00	1.85	
18021502-142	0.03661 ± 0.00521	0.2716 ± 0.0592	0.0538 ± 0.0089	231.8 ± 33.0	244.0 ± 53.2		0.65	0.36	
18021502-143	0.01602 ± 0.00148	0.1115 ± 0.0164	0.0505 ± 0.0058	102.4 ± 9.5	107.3 ± 15.8		0.44	0.32	
18021502-144	0.02787 ± 0.00366	0.2154 ± 0.0434	0.0561 ± 0.0086	177.2 ± 23.3	198.1 ± 39.9		1.64	0.58	
18021502-145	0.02941 ± 0.00214	0.2137 ± 0.0250	0.0527 ± 0.0048	186.9 ± 13.6	196.6 ± 23.0		0.62	0.22	
18021502-146	0.30592 ± 0.00889	5.6422 ± 0.1992	0.1338 ± 0.0027	1720.6 ± 50.0	1922.5 ± 67.9	2148.0 ± 43.1	0.05	0.09	
18021502-147	0.03083 ± 0.00553	0.2261 ± 0.0613	0.0532 ± 0.0108	195.7 ± 35.1	207.0 ± 56.1		0.00	0.86	
18021502-148	0.02864 ± 0.00442	0.1905 ± 0.0453	0.0482 ± 0.0087	182.0 ± 28.1	177.1 ± 42.1		2.56	0.28	
18021502-149	0.02659 ± 0.00236	0.1875 ± 0.0264	0.0511 ± 0.0056	169.2 ± 15.0	174.5 ± 24.6		0.00	0.43	
18021502-150	0.02016 ± 0.00071	0.1780 ± 0.0194	0.0640 ± 0.0066	128.7 ± 4.6	166.3 ± 18.1		0.32	0.37	
18021502-151	0.03071 ± 0.00127	0.2023 ± 0.0328	0.0478 ± 0.0075	195.0 ± 8.1	187.1 ± 30.3		0.00	0.52	
18021502-152	0.03879 ± 0.00120	0.2782 ± 0.0244	0.0520 ± 0.0043	245.3 ± 7.6	249.2 ± 21.9		0.80	0.24	
18021502-153	0.03084 ± 0.00103	0.2146 ± 0.0227	0.0505 ± 0.0051	195.8 ± 6.5	197.4 ± 20.9		0.00	0.11	
18021502-154	0.03175 ± 0.00108	0.2465 ± 0.0263	0.0563 ± 0.0057	201.5 ± 6.9	223.7 ± 23.9		1.70	0.65	
18021502-155	0.03311 ± 0.00185	0.2387 ± 0.0578	0.0523 ± 0.0123	210.0 ± 11.7	217.4 ± 52.6		2.94	0.85	
18021502-156	0.02784 ± 0.00085	0.1912 ± 0.0166	0.0498 ± 0.0041	177.0 ± 5.4	177.6 ± 15.5		0.00	0.33	
18021502-157	0.02959 ± 0.00086	0.1971 ± 0.0146	0.0483 ± 0.0033	188.0 ± 5.4	182.7 ± 13.5		0.24	0.56	
18021502-158	0.03037 ± 0.00096	0.2166 ± 0.0201	0.0517 ± 0.0045	192.9 ± 6.1	199.1 ± 18.5		0.91	0.26	
18021502-159	0.33715 ± 0.00698	5.2200 ± 0.2185	0.1123 ± 0.0041	1872.9 ± 38.8	1855.8 ± 77.7	1837.0 ± 66.8	0.28	0.35	
18021502-160	0.02640 ± 0.00064	0.1953 ± 0.0148	0.0537 ± 0.0038	168.0 ± 4.1	181.1 ± 13.7		0.13	0.43	
18021502-161	0.01836 ± 0.00054	0.1274 ± 0.0142	0.0503 ± 0.0054	117.3 ± 3.5	121.7 ± 13.6		2.88	1.71	
18021502-162	0.02841 ± 0.00069	0.2012 ± 0.0155	0.0514 ± 0.0038	180.6 ± 4.4	186.2 ± 14.3		1.02	0.37	
18021502-163	0.02810 ± 0.00078	0.1963 ± 0.0196	0.0507 ± 0.0049	178.6 ± 4.9	182.0 ± 18.2		0.00	0.47	
18021502-164	0.03116 ± 0.00071	0.2193 ± 0.0150	0.0510 ± 0.0033	197.8 ± 4.5	201.3 ± 13.7		0.00	0.24	
18021502-165	0.09794 ± 0.00263	0.2834 ± 0.0391	0.0210 ± 0.0028	602.3 ± 16.2	253.4 ± 35.0		0.54	0.21	
18021502-166	0.02933 ± 0.00073	0.1995 ± 0.0167	0.0493 ± 0.0039	186.4 ± 4.7	184.7 ± 15.5		0.00	0.56	
18021502-167	0.03579 ± 0.00111	0.2769 ± 0.0316	0.0561 ± 0.0062	226.7 ± 7.0	248.2 ± 28.3		1.73	0.87	
18021502-168	0.20079 ± 0.00228	3.1725 ± 0.0749	0.1146 ± 0.0024	1179.5 ± 13.4	1450.4 ± 34.3		0.00	0.13	
18021502-169	0.03112 ± 0.00098	0.2118 ± 0.0305	0.0494 ± 0.0069	197.5 ± 6.2	195.1 ± 28.1		0.00	0.69	
18021502-170	0.02911 ± 0.00074	0.2033 ± 0.0224	0.0507 ± 0.0054	185.0 ± 4.7	187.9 ± 20.7		0.00	0.63	
18021502-171	0.02519 ± 0.00041	0.1704 ± 0.0108	0.0491 ± 0.0030	160.3 ± 2.6	159.8 ± 10.2		0.00	0.04	
18021502-172	0.03306 ± 0.00097	0.2453 ± 0.0311	0.0538 ± 0.0066	209.7 ± 6.1	222.8 ± 28.2		0.18	0.74	
18021502-173	0.03267 ± 0.00070	0.2201 ± 0.0199	0.0489 ± 0.0043	207.3 ± 4.4	202.0 ± 18.3		0.00	0.45	
18021502-174	0.30333 ± 0.00383	4.8064 ± 0.1345	0.1149 ± 0.0029	1707.8 ± 21.6	1785.9 ± 50.0	1879.0 ± 46.9	0.00	0.02	
Sample 16102903									
16102903-001	0.02690 ± 0.00080	0.1880 ± 0.0139	0.0507 ± 0.0034	171.1 ± 5.1	174.9 ± 12.9		0.00	0.09	
16102903-002	0.25388 ± 0.00677	4.1358 ± 0.1558	0.1181 ± 0.0031	1458.5 ± 38.9	1661.3 ± 62.6	1929.0 ± 51.3	0.00	0.45	
16102903-003	0.03028 ± 0.00091	0.2169 ± 0.0160	0.0520 ± 0.0035	192.3 ± 5.8	199.3 ± 14.7		1.25	0.33	
16102903-004	0.02632 ± 0.00078	0.1948 ± 0.0139	0.0537 ± 0.0035	167.4 ± 5.0	180.7 ± 12.9		1.35	0.81	
16102903-005	0.02897 ± 0.00086	0.2020 ± 0.0149	0.0506 ± 0.0034	184.1 ± 5.5	186.8 ± 13.7		0.63	0.25	
16102903-006	0.34369 ± 0.00913	5.3491 ± 0.1977	0.1129 ± 0.0029	1904.4 ± 50.6	1876.7 ± 69.4	1847.0 ± 47.4	0.05	0.04	
16102903-007	0.41262 ± 0.01097	8.5696 ± 0.3154	0.1506 ± 0.0038	2226.9 ± 59.2	2293.3 ± 84.4	2354.0 ± 59.9	0.00	1.65	
16102903-008	0.04074 ± 0.00135	0.3619 ± 0.0314	0.0644 ± 0.0052	257.4 ± 8.5	313.6 ± 27.2		0.00	0.76	
16102903-009	0.03912 ± 0.00119	0.2892 ± 0.0209	0.0536 ± 0.0035	247.4 ± 7.5	257.9 ± 18.6		0.21	0.83	
16102903-010	0.03340 ± 0.00091	0.2485 ± 0.0222	0.0539 ± 0.0046	211.8 ± 5.7	225.3 ± 20.1		4.05	0.49	
16102903-011	0.03712 ± 0.00090	0.2961 ± 0.0207	0.0578 ± 0.0038	235.0 ± 5.7	263.3 ± 18.4		0.00	0.98	
16102903-012	0.03829 ± 0.00115	0.2709 ± 0.0296	0.0513 ± 0.0054	242.2 ± 7.3	243.4 ± 26.6		0.13	0.87	
16102903-013	0.03011 ± 0.00119	0.2496 ± 0.0374	0.0601 ± 0.0087	191.2 ± 7.5	226.3				

Appendix1-3 LA-ICP-MS U-Pb isotopic data. Discordant data are shown in gray color. ²⁰⁶Pbc: common ²⁰⁶Pb (%).

No.	Isotopic ratios				Age (Ma)				²⁰⁶ Pbc	Th/U
	²⁰⁶ Pb/ ²³⁸ U	²⁰⁷ Pb/ ²³⁵ U	²⁰⁷ Pb/ ²⁰⁶ Pb	²³⁸ U- ²⁰⁶ Pb	²³⁵ U- ²⁰⁷ Pb	²⁰⁷ Pb/ ²⁰⁶ Pb	²⁰⁶ Pbc			
16102903-026	0.03217 ± 0.00140	0.4500 ± 0.0612	0.1014 ± 0.0131	204.1 ± 8.9	377.2 ± 51.3			0.48	0.55	
16102903-027	0.36671 ± 0.00800	5.8550 ± 0.2417	0.1158 ± 0.0041	2013.9 ± 43.9	1954.5 ± 80.7			0.31	0.30	
16102903-028	0.34613 ± 0.00735	5.8178 ± 0.2210	0.1219 ± 0.0038	1916.1 ± 40.7	1949.0 ± 74.0			0.21	0.11	
16102903-029	0.44718 ± 0.00948	9.6917 ± 0.3583	0.1572 ± 0.0048	2382.7 ± 50.5	2405.8 ± 88.9			2426.0 ± 73.5	0.00	0.86
16102903-030	0.03742 ± 0.00148	0.4053 ± 0.0541	0.0785 ± 0.0100	236.8 ± 9.3	345.5 ± 46.1			0.00	0.58	
16102903-031	0.33323 ± 0.00714	5.1424 ± 0.2021	0.1119 ± 0.0037	1854.0 ± 39.7	1843.1 ± 72.4			1831.0 ± 60.3	0.00	0.24
16102903-032	0.02916 ± 0.00083	0.2195 ± 0.0206	0.0546 ± 0.0049	185.3 ± 5.2	201.5 ± 19.0				0.00	0.25
16102903-033	0.26239 ± 0.00557	4.0880 ± 0.1560	0.1130 ± 0.0036	1502.0 ± 31.9	1651.8 ± 63.0			1849.0 ± 58.7	0.03	0.34
16102903-034	0.19014 ± 0.00315	2.9277 ± 0.0787	0.1117 ± 0.0024	1122.1 ± 18.6	1389.0 ± 37.3				0.00	0.08
16102903-035	0.30342 ± 0.00530	4.6601 ± 0.1510	0.1114 ± 0.0030	1708.2 ± 29.9	1760.0 ± 57.0			1823.0 ± 49.7	0.00	0.21
16102903-036	0.05279 ± 0.00115	0.5399 ± 0.0333	0.0742 ± 0.0043	331.6 ± 7.2	438.4 ± 27.0				0.00	0.17
16102903-037	0.24232 ± 0.00449	3.8209 ± 0.1444	0.1144 ± 0.0038	1398.7 ± 25.9	1597.1 ± 60.4			1870.0 ± 61.6	0.02	0.45
16102903-038	0.02959 ± 0.00073	0.2457 ± 0.0204	0.0602 ± 0.0048	188.0 ± 4.6	223.0 ± 18.5				3.17	0.34
16102903-039	0.04154 ± 0.00089	0.3261 ± 0.0218	0.0569 ± 0.0036	262.3 ± 5.6	286.6 ± 19.2				1.15	0.50
16102903-040	0.02414 ± 0.00061	0.1825 ± 0.0166	0.0548 ± 0.0048	153.7 ± 3.9	170.2 ± 15.5				0.00	0.89
16102903-041	0.06780 ± 0.00216	0.5776 ± 0.0685	0.0618 ± 0.0071	422.9 ± 13.5	462.9 ± 54.9				3.31	0.59
16102903-042	0.49186 ± 0.00902	11.6022 ± 0.4037	0.1711 ± 0.0051	2578.7 ± 47.3	2572.8 ± 89.5			2569.0 ± 76.0	0.26	0.49
16102903-043	0.03845 ± 0.00105	0.3074 ± 0.0285	0.0580 ± 0.0051	243.2 ± 6.6	272.2 ± 25.2				0.00	0.10
16102903-044	0.42543 ± 0.00792	9.4181 ± 0.3393	0.1606 ± 0.0050	2285.1 ± 42.5	2379.5 ± 85.7			2462.0 ± 76.0	0.00	0.34
16102903-045	0.03089 ± 0.00069	0.2440 ± 0.0163	0.0573 ± 0.0036	196.1 ± 4.4	221.7 ± 14.8				0.00	0.27
16102903-046	0.03513 ± 0.00084	0.2998 ± 0.0222	0.0619 ± 0.0043	222.6 ± 5.3	266.2 ± 19.7				0.00	0.49
16102903-047	0.03624 ± 0.00137	0.2892 ± 0.0395	0.0579 ± 0.0076	229.5 ± 8.7	257.9 ± 35.2				0.31	0.71
16102903-048	0.03716 ± 0.00111	0.3152 ± 0.0320	0.0615 ± 0.0060	235.2 ± 7.0	278.2 ± 28.3				0.48	0.51
16102903-049	0.02947 ± 0.00063	0.2293 ± 0.0142	0.0564 ± 0.0033	187.2 ± 4.0	209.6 ± 13.0				1.18	0.38
16102903-050	0.12668 ± 0.00290	1.8939 ± 0.0948	0.1084 ± 0.0048	768.9 ± 17.6	1078.9 ± 54.0				2.10	0.39
16102903-051	0.03299 ± 0.00093	0.2210 ± 0.0215	0.0486 ± 0.0045	209.2 ± 5.9	202.8 ± 19.7				1.14	0.53
16102903-052	0.46295 ± 0.00928	10.6172 ± 0.3559	0.1663 ± 0.0045	2452.6 ± 49.2	2490.1 ± 83.5			2522.0 ± 67.7	0.15	0.25
16102903-053	0.02772 ± 0.00096	0.3306 ± 0.0338	0.0865 ± 0.0083	176.2 ± 6.1	290.0 ± 29.7				0.00	0.87
16102903-054	0.03197 ± 0.00111	0.3800 ± 0.0390	0.0862 ± 0.0083	202.9 ± 7.1	327.0 ± 33.6				0.86	0.90
16102903-055	0.02852 ± 0.00079	0.2002 ± 0.0186	0.0509 ± 0.0045	181.2 ± 5.0	185.3 ± 17.2				0.40	0.43
16102903-056	0.38732 ± 0.00777	6.1070 ± 0.2123	0.1144 ± 0.0032	2110.4 ± 42.4	1991.2 ± 69.2			1870.0 ± 53.1	0.00	0.23
16102903-057	0.03085 ± 0.00072	0.3032 ± 0.0177	0.0713 ± 0.0038	195.9 ± 4.5	268.9 ± 15.7				2.03	0.24
16102903-058	0.29957 ± 0.00612	4.5255 ± 0.1675	0.1096 ± 0.0034	1689.2 ± 34.5	1735.6 ± 64.2			1793.0 ± 55.3	0.00	0.34
16102903-059	0.05228 ± 0.00157	0.6960 ± 0.0516	0.0965 ± 0.0065	328.5 ± 9.9	536.4 ± 39.8				3.69	0.31
16102903-060	0.03108 ± 0.00081	0.2767 ± 0.0163	0.0646 ± 0.0034	197.3 ± 5.1	248.0 ± 14.7				0.32	0.25
16102903-061	0.02618 ± 0.00066	0.2203 ± 0.0119	0.0610 ± 0.0029	166.6 ± 4.2	202.1 ± 10.9				1.37	0.17
16102903-062	0.03996 ± 0.00109	0.3530 ± 0.0241	0.0641 ± 0.0040	252.6 ± 6.9	307.0 ± 21.0				0.00	0.19
16102903-063	0.03920 ± 0.00114	0.3052 ± 0.0259	0.0565 ± 0.0045	247.8 ± 7.2	270.5 ± 22.9				0.00	0.20
16102903-064	0.38977 ± 0.00908	6.1110 ± 0.1933	0.1137 ± 0.0024	2121.7 ± 49.4	1991.7 ± 63.0			1860.0 ± 39.8	0.00	0.32
16102903-065	0.44365 ± 0.01010	10.9349 ± 0.2946	0.1788 ± 0.0026	2366.9 ± 53.9	2517.5 ± 67.8			2642.0 ± 38.0	0.00	0.39
16102903-066	0.29510 ± 0.00686	4.9423 ± 0.1536	0.1215 ± 0.0025	1667.0 ± 38.8	1809.4 ± 56.2			1978.0 ± 40.8	0.00	0.26
16102903-067	0.32074 ± 0.00735	5.1410 ± 0.1463	0.1162 ± 0.0020	1793.4 ± 41.1	1842.8 ± 52.4			1900.0 ± 32.1	0.00	0.05
16102903-068	0.03434 ± 0.00095	0.2795 ± 0.0172	0.0590 ± 0.0033	217.6 ± 6.0	250.2 ± 15.4				0.49	0.38
16102903-069	0.38383 ± 0.00966	7.3995 ± 0.2630	0.1398 ± 0.0035	2094.1 ± 52.7	2160.8 ± 76.8			2225.0 ± 55.8	0.00	1.41
16102903-070	0.43219 ± 0.01094	8.3866 ± 0.3043	0.1407 ± 0.0037	2315.6 ± 58.6	2273.7 ± 82.5			2237.0 ± 58.2	0.00	0.11
16102903-071	0.41124 ± 0.01054	8.2445 ± 0.3144	0.1454 ± 0.0041	2220.6 ± 56.9	2258.2 ± 86.1			2293.0 ± 64.7	0.02	0.27
16102903-072	0.32058 ± 0.00815	5.0111 ± 0.1886	0.1134 ± 0.0031	1792.6 ± 45.6	1821.1 ± 68.5			1855.0 ± 51.5	0.00	0.46
16102903-073	0.38961 ± 0.01004	6.2776 ± 0.2493	0.1169 ± 0.0035	2121.0 ± 54.6	2015.3 ± 80.0			1909.0 ± 57.7	0.00	0.28
16102903-074	0.02834 ± 0.00082	0.1986 ± 0.0152	0.0508 ± 0.0036	180.1 ± 5.2	184.0 ± 14.0				0.63	0.37
16102903-075	0.02789 ± 0.00089	0.2230 ± 0.0211	0.0580 ± 0.0052	177.4 ± 5.7	204.4 ± 19.3				0.69	0.38
16102903-076	0.03319 ± 0.00097	0.3176 ± 0.0222	0.0694 ± 0.0044	210.5 ± 6.1	280.0 ± 19.6				1.83	0.68
16102903-077	0.05150 ± 0.00141	0.4207 ± 0.0385	0.0592 ± 0.0052	323.7 ± 8.9	356.6 ± 32.6				0.20	0.63
16102903-078	0.02825 ± 0.00060	0.2170 ± 0.0117	0.0557 ± 0.0028	179.6 ± 3.8	199.4 ± 10.7				0.82	0.29
16102903-079	0.02813 ± 0.00075	0.2205 ± 0.0194	0.0568 ± 0.0048	178.9 ± 4.8	202.3 ± 17.8				4.51	0.37
16102903-080	0.02906 ± 0.00065	0.3478 ± 0.0180	0.0868 ± 0.0041	184.6 ± 4.1	303.1 ± 15.7				4.75	0.59
16102903-081	0.34184 ± 0.00665	6.3171 ± 0.1952	0.1340 ± 0.0032	1895.5 ± 36.9	2020.8 ± 62.4			2152.0 ± 51.6	0.00	0.35
16102903-082	0.02819 ± 0.00059	0.2089 ± 0.0105	0.0538 ± 0.0025	179.2 ± 3.7	192.6 ± 9.7				0.77	0.29
16102903-083	0.38643 ± 0.00727	7.3098 ± 0.1968	0.1372 ± 0.0026	2106.2 ± 39.6	2149.9 ± 57.9			2193.0 ± 42.2	0.11	0.18
16102903-084	0.27220 ± 0.00515	4.1290 ± 0.1171	0.1100 ± 0.0023	1552.0 ± 29.4	1660.0 ± 47.1			1800.0 ± 38.0	0.01	0.28
16102903-085	0.04580 ± 0.00108	0.3335 ± 0.0239	0.0528 ± 0.0036	288.7 ± 6.8	292.2 ± 20.9				0.00	0.36
16102903-086	0.03142 ± 0.00170	0.6905 ± 0.0698	0.1594 ± 0.0136	199.4 ± 10.8	533.1 ± 53.9				0.00	0.58
16102903-087	0.02338 ± 0.00254	0.2528 ± 0.0516	0.0784 ± 0.0136	149.0 ± 16.2	228.9 ± 46.7				0.00	0.49
16102903-088	0.02789 ± 0.00074	0.2038 ± 0.0153	0.0530 ± 0.0037	177.3 ± 4.7	188.3 ± 14.2				0.00	0.50
16102903-089	0.02505 ± 0.00235	0.2429 ± 0.0453	0.0703 ± 0.0114	159.5 ± 15.0	220.8 ± 41.2				0.00	0.92
16102903-090	0.29646 ± 0.00566	4.9305 ± 0.1967	0.1206 ± 0.0042	1673.7 ± 32.0	1807.4 ± 72.1			1966.0 ± 68.9	0.00	0.19
16102903-091	0.02852 ± 0.00066	0.2050 ± 0.0132	0.0521 ± 0.0031	181.3 ± 4.2	189.3 ± 12.2				0.19	0.34
16102903-092	0.38691 ± 0.00765	7.4138 ± 0.2181	0.1390 ± 0.0030	2108.5 ± 41.7	2162.6 ± 63.6			2215.0 ± 48.2	0.00	0.34
16102903-093	0.32613 ± 0.00675	5.2998 ± 0.1979	0.1179 ± 0.0037	1819.6 ± 37.7	1868.8 ± 69.8			1925.0 ± 59.8	0.14	0.42
16102903-094	0.03720 ± 0.00085	0.2887 ± 0.0169	0.0563 ± 0.0030	235.4 ± 5.4	257.5 ± 15.1				0.00	0.25
16102903-095	0.04745 ± 0.00200	0.3966 ± 0.0635	0.0606 ± 0.0094	298.8 ± 12.6	339.1 ± 54.3				0.34	0.30
16102903-096	0.45453 ± 0.00957	10.0438 ± 0.3785	0.1603 ± 0.0050	2415.4 ± 50.8	2438.7 ± 91.9			2459.0 ± 76.9	0.00	0.19
16102903-097	0.42280 ± 0.00888	7.5948 ± 0.2899	0.1303 ± 0.0042	2273.2 ± 47.8	2184.2 ± 83.4			2102.0 ± 67.0	0.09	0.26
16102903-098	0.03185 ± 0.00066	0.2809 ± 0.0229	0.0640 ± 0.0049	202.1 ± 5.4	251.4 ± 20.5				1.14	0.47
16102903-099	0.21017 ± 0.00455	3.6499 ± 0.1520	0.1260 ± 0.0045	1229.7 ± 26.6	1560.4 ± 65.0			2043.0 ± 72.7	0.01	0.17
16102903-100	0.32015 ± 0.00703	5.0053 ± 0.2160	0.1134 ± 0.0042	1790.5 ± 39.3	1820.2 ± 78.5			1855.0 ± 68.9	0.08	0.38
16102903-101	0.02869 ± 0.00063	0.2160 ± 0.0112	0.0546 ± 0.0026	182.3 ± 4.0	198.5 ± 10.3				0.43	0.45
16102903-102	0.04221 ± 0.00103	0.3255 ± 0.0252	0.0559 ± 0.0041	266.5 ± 6.5	286.1 ± 22.1				0.00	0.31
16102903-103	0.26470 ± 0.00506	4.1506 ± 0.1320	0.1137 ± 0.0029	1513.8 ± 28.9	1664.3 ± 52.9			1860.0 ± 47.3	0.00	0.21
16102903-104	0.04212 ± 0.00105	0.3600 ± 0.0279	0.0620 ± 0.0046	265.9 ± 6.7	312.2 ± 24.2				0.72	0.55
16102903-105	0.04230 ± 0.00108	0.3113 ± 0.0268	0.0534 ± 0.0044	267.1 ± 6.8	275.1 ± 23.7				0.00	0.88
16102903-106	0.15656 ± 0.00314	2.3001 ± 0.0875	0.1066 ± 0.0034	937.6 ± 18.8	121					

Appendix1-4 LA-ICP-MS U-Pb isotopic data. Discordant data are shown in gray color. ²⁰⁶Pbc: common ²⁰⁶Pb (%).

No.	Isotopic ratios				Age (Ma)				²⁰⁶ Pbc	Th/U
	²⁰⁶ Pb/ ²³⁸ U	²⁰⁷ Pb/ ²³⁵ U	²⁰⁷ Pb/ ²⁰⁶ Pb	²³⁸ U- ²⁰⁶ Pb	²³⁵ U- ²⁰⁷ Pb	²⁰⁷ Pb/ ²⁰⁶ Pb	²⁰⁶ Pbc			
16102903-127	0.03559 ± 0.00102	0.2899 ± 0.0185	0.0591 ± 0.0034	225.5 ± 6.5	258.5 ± 16.5			0.69	0.76	
16102903-128	0.04375 ± 0.00312	0.4310 ± 0.0511	0.0714 ± 0.0068	276.1 ± 19.7	363.9 ± 43.1			0.56	0.48	
16102903-129	0.29844 ± 0.00453	4.5795 ± 0.1360	0.1113 ± 0.0028	1683.6 ± 25.6	1745.5 ± 51.8	1821.0 ± 46.5		0.09	0.14	
16102903-130	0.03596 ± 0.00205	0.2602 ± 0.0269	0.0525 ± 0.0045	227.8 ± 13.0	234.8 ± 24.2			0.83	0.94	
16102903-131	0.03193 ± 0.00170	0.2744 ± 0.0260	0.0623 ± 0.0049	202.6 ± 10.8	246.2 ± 23.3			0.65	0.71	
16102903-132	0.32655 ± 0.00491	5.0671 ± 0.1488	0.1125 ± 0.0028	1821.6 ± 27.4	1830.6 ± 53.8	1841.0 ± 46.4		0.07	0.15	
16102903-133	0.03420 ± 0.00255	0.3267 ± 0.0404	0.0693 ± 0.0068	216.8 ± 16.1	287.0 ± 35.5			1.41	0.64	
16102903-134	0.36701 ± 0.00731	6.9696 ± 0.2571	0.1377 ± 0.0043	2015.3 ± 40.1	2107.5 ± 77.7	2199.0 ± 68.3		0.23	0.30	
16102903-135	0.05561 ± 0.00932	1.1358 ± 0.2799	0.1481 ± 0.0267	348.9 ± 58.5	770.5 ± 189.9			4.01	0.61	
16102903-136	0.03527 ± 0.00231	0.2816 ± 0.0320	0.0579 ± 0.0054	223.4 ± 14.6	251.9 ± 28.6			0.51	0.63	
16102903-137	0.33062 ± 0.01064	5.1706 ± 0.2451	0.1134 ± 0.0039	1841.4 ± 59.3	1847.7 ± 87.6	1855.0 ± 64.6		0.24	0.43	
16102903-138	0.04337 ± 0.00126	0.3193 ± 0.0279	0.0674 ± 0.0054	217.8 ± 8.0	281.3 ± 24.6			0.86	0.45	
16102903-139	0.01708 ± 0.00083	0.1240 ± 0.0216	0.0526 ± 0.0088	109.2 ± 5.3	118.7 ± 20.7			0.00	0.52	
16102903-140	0.01615 ± 0.00066	0.1058 ± 0.0139	0.0475 ± 0.0059	103.3 ± 4.2	102.1 ± 13.4			0.00	0.95	
16102903-141	0.30596 ± 0.00978	4.8146 ± 0.2207	0.1141 ± 0.0038	1720.8 ± 55.0	1787.4 ± 81.9	1867.0 ± 61.3		0.12	0.16	
16102903-142	0.03655 ± 0.00137	0.2564 ± 0.0264	0.0509 ± 0.0049	231.4 ± 8.7	231.7 ± 23.9			1.33	0.83	
16102903-143	0.30029 ± 0.00955	4.7425 ± 0.2114	0.1145 ± 0.0036	1692.7 ± 53.8	1774.7 ± 79.1	1873.0 ± 58.5		0.07	0.13	
16102903-144	0.04628 ± 0.00161	0.3906 ± 0.0294	0.0612 ± 0.0041	291.7 ± 10.1	334.8 ± 25.2			0.21	0.68	
16102903-145	0.02719 ± 0.00093	0.1957 ± 0.0146	0.0522 ± 0.0035	172.9 ± 5.9	181.5 ± 13.5			0.31	0.35	
16102903-146	0.02594 ± 0.00090	0.2849 ± 0.0319	0.0797 ± 0.0085	165.1 ± 5.7	254.5 ± 28.5			4.90	1.04	
16102903-147	0.04194 ± 0.00102	0.2909 ± 0.0209	0.0503 ± 0.0034	264.8 ± 6.4	259.3 ± 18.7			0.84	0.21	
16102903-148	0.03512 ± 0.00089	0.3999 ± 0.0263	0.0826 ± 0.0050	222.5 ± 5.6	341.5 ± 22.5			3.41	0.35	
16102903-149	0.02771 ± 0.00063	0.2075 ± 0.0118	0.0543 ± 0.0028	176.2 ± 4.0	191.5 ± 10.9			0.11	0.44	
16102903-150	0.02962 ± 0.00066	0.2066 ± 0.0117	0.0506 ± 0.0026	188.1 ± 4.2	190.7 ± 10.8			0.07	0.50	
16102903-151	0.03245 ± 0.00077	0.2740 ± 0.0172	0.0612 ± 0.0036	205.9 ± 4.9	245.9 ± 15.5			0.25	1.53	
16102903-152	0.03229 ± 0.00087	0.2514 ± 0.0217	0.0565 ± 0.0046	204.9 ± 5.5	227.7 ± 19.6			0.92	0.49	
16102903-153	0.03653 ± 0.00095	0.2995 ± 0.0234	0.0595 ± 0.0044	231.3 ± 6.0	266.0 ± 20.8			1.71	1.72	
16102903-154	0.03570 ± 0.00123	0.4197 ± 0.0450	0.0853 ± 0.0087	226.1 ± 7.8	355.8 ± 38.2			1.96	1.10	
16102903-155	0.02239 ± 0.00076	0.2432 ± 0.0274	0.0788 ± 0.0085	142.7 ± 4.8	221.0 ± 24.9			1.52	1.13	
16102903-156	0.02334 ± 0.00074	0.1669 ± 0.0207	0.0518 ± 0.0062	148.8 ± 4.7	156.7 ± 19.5			2.08	1.00	
16102903-157	0.01751 ± 0.00044	0.1138 ± 0.0101	0.0471 ± 0.0040	111.9 ± 2.8	109.4 ± 9.7			1.20	0.41	
16102903-158	0.21043 ± 0.00403	3.0870 ± 0.1050	0.1064 ± 0.0030	1231.1 ± 23.6	1429.4 ± 48.6	1739.0 ± 48.9		0.00	0.16	
16102903-159	0.47234 ± 0.00878	9.7064 ± 0.2824	0.1490 ± 0.0033	2493.8 ± 46.3	2407.2 ± 70.0	2335.0 ± 52.3		0.17	0.22	
16102903-160	0.01876 ± 0.00057	0.1693 ± 0.0179	0.0655 ± 0.0066	119.8 ± 3.7	158.8 ± 16.8			0.31	0.64	
16102903-161	0.04346 ± 0.00088	0.3172 ± 0.0159	0.0529 ± 0.0024	274.2 ± 5.6	279.8 ± 14.0			0.00	0.39	
16102903-162	0.03192 ± 0.00089	0.2503 ± 0.0241	0.0569 ± 0.0052	202.6 ± 5.6	226.8 ± 21.8			4.90	0.33	
16102903-163	0.04326 ± 0.00110	0.3231 ± 0.0272	0.0542 ± 0.0043	273.0 ± 7.0	284.3 ± 23.9			0.79	0.56	
16102903-164	0.22600 ± 0.00436	3.4378 ± 0.1185	0.1103 ± 0.0032	1313.5 ± 25.3	1513.0 ± 52.1	1805.0 ± 51.5		0.00	0.17	
16102903-165	0.04153 ± 0.00093	0.3253 ± 0.0202	0.0568 ± 0.0033	262.3 ± 5.8	286.0 ± 17.8			0.00	0.88	
16102903-166	0.31894 ± 0.00634	5.1976 ± 0.1942	0.1182 ± 0.0037	1784.6 ± 35.5	1852.2 ± 69.2	1930.0 ± 61.0		0.00	0.49	
16102903-167	0.35998 ± 0.00686	6.0940 ± 0.1993	0.1228 ± 0.0033	1982.1 ± 37.8	1989.3 ± 65.1	1998.0 ± 53.1		0.06	0.14	
16102903-168	0.06150 ± 0.00130	0.5208 ± 0.0271	0.0614 ± 0.0029	384.7 ± 8.1	425.7 ± 22.2			0.27	0.45	
16102903-169	0.42657 ± 0.00905	8.1626 ± 0.2842	0.1388 ± 0.0038	2290.2 ± 48.6	2249.1 ± 78.3	2213.0 ± 61.1		0.67	0.56	
16102903-170	0.04743 ± 0.00184	0.4460 ± 0.0610	0.0682 ± 0.0089	298.7 ± 11.6	374.5 ± 51.2			0.14	0.65	
16102903-171	0.30378 ± 0.00643	4.9238 ± 0.1768	0.1176 ± 0.0034	1710.0 ± 36.2	1806.3 ± 64.9	1920.0 ± 55.7		0.16	0.48	
16102903-172	0.02320 ± 0.00096	0.3121 ± 0.0401	0.0976 ± 0.0119	147.8 ± 6.1	275.8 ± 35.4			4.79	0.81	
16102903-173	0.31102 ± 0.00648	4.9029 ± 0.1687	0.1143 ± 0.0031	1745.7 ± 36.4	1802.7 ± 62.0	1870.0 ± 51.2		0.22	0.68	
16102903-174	0.40860 ± 0.00872	8.6527 ± 0.3019	0.1536 ± 0.0042	2208.5 ± 47.1	2302.0 ± 80.3	2387.0 ± 65.9		0.13	0.89	
16102903-175	0.07307 ± 0.00165	0.6112 ± 0.0308	0.0607 ± 0.0027	454.7 ± 10.3	484.3 ± 24.4			0.57	0.43	
16102903-176	0.35637 ± 0.00843	5.6754 ± 0.2051	0.1155 ± 0.0032	1964.9 ± 46.5	1927.6 ± 69.6	1888.0 ± 51.6		0.07	0.36	
16102903-177	0.02751 ± 0.00087	0.2587 ± 0.0246	0.0682 ± 0.0061	174.9 ± 5.6	233.6 ± 22.2			1.90	1.16	
16102903-178	0.01896 ± 0.00076	0.1537 ± 0.0224	0.0588 ± 0.0082	121.1 ± 4.9	145.2 ± 21.2			0.67	1.27	
16102903-179	0.03657 ± 0.00106	0.4068 ± 0.0302	0.0807 ± 0.0055	231.5 ± 6.7	346.6 ± 25.7			4.43	0.70	
16102903-180	0.02060 ± 0.00055	0.1621 ± 0.0116	0.0571 ± 0.0038	131.5 ± 3.5	152.5 ± 10.9			2.21	1.58	
16102903-181	0.03258 ± 0.00089	0.2823 ± 0.0202	0.0628 ± 0.0042	206.7 ± 5.7	252.5 ± 18.1			0.35	0.97	
16102903-182	0.30606 ± 0.00700	4.7767 ± 0.1517	0.1132 ± 0.0025	1721.3 ± 39.3	1780.7 ± 56.6	1852.0 ± 40.8		0.08	0.21	
16102903-183	0.04771 ± 0.00144	0.6109 ± 0.0463	0.0929 ± 0.0065	300.4 ± 9.0	484.1 ± 36.7			4.37	1.46	
16102903-184	0.03131 ± 0.00080	0.2330 ± 0.0162	0.0540 ± 0.0035	198.7 ± 5.1	212.6 ± 14.8			0.23	0.37	
16102903-185	0.03374 ± 0.00092	0.3270 ± 0.0244	0.0703 ± 0.0049	213.9 ± 5.8	287.3 ± 21.4			0.23	0.85	
16102903-186	0.35565 ± 0.00799	5.6630 ± 0.2174	0.1155 ± 0.0036	1961.5 ± 44.1	1925.7 ± 73.9	1888.0 ± 58.8		0.06	0.28	
16102903-187	0.33020 ± 0.00756	5.2741 ± 0.2151	0.1158 ± 0.0039	1839.4 ± 42.1	1864.6 ± 76.1	1894.0 ± 64.0		0.68	0.80	
16102903-188	0.03808 ± 0.00119	0.3486 ± 0.0341	0.0664 ± 0.0062	240.9 ± 7.5	303.7 ± 29.7			0.00	0.53	
16102903-189	0.03741 ± 0.00135	0.3269 ± 0.0412	0.0634 ± 0.0077	236.8 ± 8.6	287.2 ± 36.2			0.00	0.44	
16102903-190	0.31040 ± 0.00700	5.0594 ± 0.1968	0.1182 ± 0.0037	1742.7 ± 39.3	1829.3 ± 71.1	1930.0 ± 61.1		0.28	0.15	
16102903-191	0.37886 ± 0.00859	6.0534 ± 0.2390	0.1159 ± 0.0037	2070.9 ± 46.9	1983.5 ± 78.3	1894.0 ± 61.3		0.36	0.32	
16102903-192	0.02865 ± 0.00071	0.2143 ± 0.0137	0.0543 ± 0.0032	182.1 ± 4.5	197.2 ± 12.6			0.02	0.72	
16102903-193	0.39665 ± 0.00870	8.4650 ± 0.2622	0.1548 ± 0.0034	2153.6 ± 47.2	2282.1 ± 70.7	2400.0 ± 52.5		0.12	0.95	
16102903-194	0.02241 ± 0.00093	0.2620 ± 0.0353	0.0848 ± 0.0109	142.9 ± 6.0	236.2 ± 31.8			0.00	1.83	
16102903-195	0.03196 ± 0.00081	0.3425 ± 0.0203	0.0777 ± 0.0042	202.8 ± 5.1	299.1 ± 17.7			0.96	0.19	
16102903-196	0.03830 ± 0.00100	0.8634 ± 0.0438	0.1635 ± 0.0071	242.3 ± 6.3	632.0 ± 32.0			0.37	0.37	
16102903-197	0.03132 ± 0.00094	0.2829 ± 0.0258	0.0655 ± 0.0056	198.8 ± 6.0	253.0 ± 23.1			1.48	0.44	
16102903-198	0.40519 ± 0.00890	8.4464 ± 0.2632	0.1512 ± 0.0033	2192.9 ± 48.2	2280.1 ± 71.1	2360.0 ± 52.2		0.06	0.33	
16102903-199	0.03405 ± 0.00082	0.3112 ± 0.0169	0.0663 ± 0.0032	215.9 ± 5.2	275.1 ± 15.0			0.19	0.36	
16102903-200	0.26734 ± 0.00573	5.6289 ± 0.1246	0.1527 ± 0.0038	1527.3 ± 32.7	1920.5 ± 42.5	2377.0 ± 13.1		0.15	0.70	
16102903-201	0.40123 ± 0.00888	8.5721 ± 0.2240	0.1550 ± 0.0022	2174.7 ± 48.2	2293.5 ± 59.9	2402.0 ± 33.3		0.00	0.49	
16102903-202	0.01776 ± 0.00054	0.3710 ± 0.0264	0.1515 ± 0.0098	113.5 ± 3.4	320.4 ± 22.8			0.00	0.91	
16102903-203	0.03661 ± 0.00088	0.2817 ± 0.0178	0.0558 ± 0.0033	231.8 ± 5.6	252.0 ± 15.9			0.69	1.24	
16102903-204	0.03085 ± 0.00088	0.3964 ± 0.0301	0.0932 ± 0.0066	195.9 ± 5.6	339.0 ± 25.7			0.74	0.78	
16102903-205	0.32225 ± 0.00672	5.2353 ± 0.1717	0.1178 ± 0.0030	1800.7 ± 37.6	1858.3 ± 61.0	1924.0 ± 48.7		0.07	0.04	
16102903-206	0.03028 ± 0.00077	0.2420 ± 0.0176	0.0580 ± 0.0039	192.3 ± 4.9	220.0 ± 16.0			0.00	0.32	
16102903-207	0.36187 ± 0.00801	5.6667 ± 0.2230	0.1140 ± 0.0037	1991.0 ± 44.1	1929.3 ± 75.6	1864.0 ± 60.3		0.00	0.30	
16102903-208	0.03082 ± 0.00093	0.2841 ± 0.0272	0.0669 ± 0.0061	195.7 ± 5.9	253.9 ± 24.3			0.00	0.78	
16102903-209	0.01669 ± 0.00041	0.1473 ± 0.0096	0.0640 ± 0.0038	106.7 ± 2.6	139.5 ± 9.1			2.72	0.43	
16102903-210	0.06056 ± 0.00146	0.5079								

Appendix1-5 LA-ICP-MS U-Pb isotopic data. Discordant data are shown in gray color. ²⁰⁶Pbc: common ²⁰⁶Pb (%).

No.	Isotopic ratios				Age (Ma)			²⁰⁶ Pbc	Th/U
	²⁰⁶ Pb/ ²³⁸ U	²⁰⁷ Pb/ ²³⁵ U	²⁰⁷ Pb/ ²⁰⁶ Pb	²³⁸ U- ²⁰⁶ Pb	²³⁵ U- ²⁰⁷ Pb	²⁰⁷ Pb/ ²⁰⁶ Pb	²⁰⁶ Pbc		
16102903-228	0.04117 ± 0.00076	0.4452 ± 0.0247	0.0794 ± 0.0041	260.1 ± 4.8	373.9 ± 20.8		0.84	1.17	
16102903-229	0.39034 ± 0.00704	8.2906 ± 0.2414	0.1540 ± 0.0035	2124.4 ± 38.3	2263.2 ± 65.9	2392.0 ± 54.6	0.00	0.63	
16102903-230	0.03937 ± 0.00115	0.3091 ± 0.0335	0.0570 ± 0.0059	248.9 ± 7.3	273.5 ± 29.6		0.00	0.70	
16102903-231	0.32039 ± 0.00609	5.0250 ± 0.1751	0.1138 ± 0.0033	1791.6 ± 34.0	1823.5 ± 63.5	1861.0 ± 54.3	0.23	0.31	
16102903-232	0.02830 ± 0.00051	0.2037 ± 0.0076	0.0522 ± 0.0017	179.9 ± 3.3	188.2 ± 7.1		0.26	0.17	
16102903-233	0.30499 ± 0.00563	4.7337 ± 0.1535	0.1126 ± 0.0030	1716.0 ± 31.7	1773.2 ± 57.5	1842.0 ± 49.1	0.00	0.37	
16102903-234	0.34014 ± 0.00635	5.3664 ± 0.1781	0.1144 ± 0.0031	1887.3 ± 35.2	1879.4 ± 62.4	1871.0 ± 51.3	0.17	0.20	
16102903-235	0.46306 ± 0.00839	9.6267 ± 0.2195	0.1508 ± 0.0021	2453.1 ± 44.4	2399.6 ± 54.7	2355.0 ± 32.6	0.01	1.14	
Sample 16102904									
16102904-001	0.04292 ± 0.00167	0.2748 ± 0.0475	0.0464 ± 0.0078	270.9 ± 10.6	246.5 ± 42.6		0.00	0.32	
16102904-002	0.02989 ± 0.00102	0.2336 ± 0.0317	0.0567 ± 0.0074	189.8 ± 6.5	213.1 ± 28.9		0.81	0.37	
16102904-003	0.46514 ± 0.00806	8.8136 ± 0.2721	0.1374 ± 0.0035	2462.2 ± 42.7	2318.8 ± 71.6	2196.0 ± 56.1	0.12	0.33	
16102904-004	0.34850 ± 0.00576	6.3542 ± 0.1788	0.1322 ± 0.0030	1927.4 ± 31.8	2025.9 ± 57.0	2128.0 ± 48.5	0.00	0.27	
16102904-005	0.03734 ± 0.00131	0.3140 ± 0.0423	0.0610 ± 0.0079	236.3 ± 8.3	277.3 ± 37.4		1.38	0.66	
16102904-006	0.03221 ± 0.00067	0.2707 ± 0.0172	0.0610 ± 0.0037	204.3 ± 4.3	243.3 ± 15.5		0.39	0.12	
16102904-007	0.02700 ± 0.00057	0.1814 ± 0.0129	0.0487 ± 0.0033	171.8 ± 3.6	169.3 ± 12.0		1.46	0.07	
16102904-008	0.19457 ± 0.00329	2.9043 ± 0.0770	0.1083 ± 0.0022	1146.1 ± 19.4	1383.0 ± 36.7		0.00	0.06	
16102904-009	0.30407 ± 0.00485	6.8302 ± 0.1261	0.1629 ± 0.0015	1711.5 ± 27.3	2089.6 ± 38.6	2487.0 ± 23.1	0.06	0.05	
16102904-010	0.22081 ± 0.00361	3.5169 ± 0.1172	0.1155 ± 0.0034	1286.2 ± 21.0	1531.0 ± 51.0	1888.0 ± 54.8	0.00	0.04	
16102904-011	0.02756 ± 0.00058	0.2169 ± 0.0151	0.0571 ± 0.0038	175.3 ± 3.7	199.3 ± 13.8		0.00	0.23	
16102904-012	0.02705 ± 0.00064	0.1975 ± 0.0174	0.0530 ± 0.0045	172.0 ± 4.1	183.0 ± 16.1		1.50	0.16	
16102904-013	0.37463 ± 0.00594	8.1813 ± 0.2426	0.1584 ± 0.0040	2051.2 ± 32.5	2251.2 ± 66.8	2439.0 ± 61.1	0.00	0.35	
16102904-014	0.02503 ± 0.00146	0.3468 ± 0.0677	0.1005 ± 0.0187	159.4 ± 9.3	302.3 ± 59.1		0.00	0.56	
16102904-015	0.04155 ± 0.00130	0.2949 ± 0.0379	0.0515 ± 0.0064	262.4 ± 8.2	262.4 ± 33.8		1.64	0.50	
16102904-016	0.29704 ± 0.00502	4.6862 ± 0.1659	0.1144 ± 0.0036	1676.6 ± 28.4	1764.7 ± 62.5	1871.0 ± 58.2	0.00	0.19	
16102904-017	0.28393 ± 0.00485	4.3785 ± 0.1588	0.1118 ± 0.0036	1611.1 ± 27.5	1708.2 ± 62.0	1830.0 ± 58.6	0.05	0.40	
16102904-018	0.03197 ± 0.00092	0.2622 ± 0.0284	0.0595 ± 0.0062	202.9 ± 5.8	236.4 ± 25.6		0.00	0.71	
16102904-019	0.31869 ± 0.00497	4.9346 ± 0.1631	0.1123 ± 0.0033	1783.3 ± 27.8	1806.1 ± 59.7	1838.0 ± 53.5	0.00	0.04	
16102904-020	0.40410 ± 0.00676	8.1785 ± 0.2992	0.1468 ± 0.0048	2187.9 ± 36.6	2250.9 ± 82.3	2309.0 ± 75.1	0.06	0.37	
16102904-021	0.30440 ± 0.00479	4.6304 ± 0.1566	0.1103 ± 0.0033	1713.1 ± 26.9	1754.7 ± 59.3	1805.0 ± 54.0	0.07	0.18	
16102904-022	0.30847 ± 0.00553	5.2587 ± 0.2245	0.1236 ± 0.0048	1733.2 ± 31.1	1862.1 ± 79.5	2010.0 ± 77.9	0.00	2.01	
16102904-023	0.03238 ± 0.00076	0.2298 ± 0.0206	0.0515 ± 0.0045	205.4 ± 4.8	210.1 ± 18.9		0.00	0.59	
16102904-024	0.03354 ± 0.00066	0.2456 ± 0.0164	0.0531 ± 0.0034	212.7 ± 4.2	223.0 ± 14.9		0.00	0.40	
16102904-025	0.28537 ± 0.00577	5.3793 ± 0.2700	0.1367 ± 0.0063	1618.3 ± 32.7	1881.5 ± 94.4	2187.0 ± 100.5	0.00	0.48	
16102904-026	0.31239 ± 0.00476	4.9427 ± 0.1547	0.1148 ± 0.0031	1752.4 ± 26.7	1809.5 ± 56.6	1877.0 ± 51.3	0.00	0.08	
16102904-027	0.30689 ± 0.00490	4.9510 ± 0.1717	0.1170 ± 0.0036	1725.4 ± 27.6	1810.9 ± 62.8	1911.0 ± 58.8	0.00	0.62	
16102904-028	0.35210 ± 0.00645	6.7418 ± 0.2263	0.1389 ± 0.0039	1944.6 ± 35.6	2078.0 ± 69.8	2214.0 ± 62.3	0.23	1.35	
16102904-029	0.32923 ± 0.00674	5.1587 ± 0.2354	0.1136 ± 0.0046	1834.6 ± 37.6	1845.8 ± 84.2	1859.0 ± 75.8	0.00	0.70	
16102904-030	0.04156 ± 0.00112	0.3665 ± 0.0340	0.0640 ± 0.0057	262.5 ± 7.1	317.1 ± 29.4		0.00	0.12	
16102904-031	0.46886 ± 0.00919	10.4144 ± 0.3967	0.1618 ± 0.0053	2469.8 ± 48.6	2472.2 ± 94.2	2475.0 ± 80.7	0.41	0.73	
16102904-032	0.32463 ± 0.00609	5.1374 ± 0.1912	0.1148 ± 0.0037	1812.3 ± 34.0	1842.2 ± 68.6	1877.0 ± 60.3	0.33	0.39	
16102904-033	0.04224 ± 0.00116	0.3531 ± 0.0342	0.0606 ± 0.0056	266.7 ± 7.3	307.0 ± 29.8		0.93	0.07	
16102904-034	0.11711 ± 0.00224	1.6264 ± 0.0669	0.1007 ± 0.0037	713.9 ± 13.7	980.4 ± 40.3		0.00	0.21	
16102904-035	0.23293 ± 0.00397	3.4794 ± 0.0973	0.1083 ± 0.0024	1349.8 ± 23.0	1522.5 ± 42.6	1772.0 ± 39.3	0.01	0.14	
16102904-036	0.31890 ± 0.00570	5.0084 ± 0.1726	0.1139 ± 0.0034	1784.3 ± 31.9	1820.7 ± 62.8	1863.0 ± 54.9	0.00	0.41	
16102904-037	0.36807 ± 0.00660	6.2762 ± 0.2151	0.1237 ± 0.0036	2020.3 ± 36.2	2015.1 ± 69.1	2010.0 ± 58.7	0.02	0.42	
16102904-038	0.36726 ± 0.00642	6.8558 ± 0.2160	0.1354 ± 0.0035	2016.5 ± 35.2	2092.9 ± 65.9	2170.0 ± 56.9	0.19	0.57	
16102904-039	0.35396 ± 0.00643	5.7088 ± 0.2039	0.1170 ± 0.0036	1953.5 ± 35.5	1932.6 ± 69.0	1911.0 ± 58.8	0.03	0.15	
16102904-040	0.27691 ± 0.00489	4.3546 ± 0.1453	0.1141 ± 0.0032	1575.8 ± 27.8	1703.7 ± 56.8	1865.0 ± 52.8	0.20	0.08	
16102904-041	0.04530 ± 0.00151	0.3436 ± 0.0457	0.0550 ± 0.0071	285.6 ± 9.5	299.9 ± 39.9		2.41	0.30	
16102904-042	0.30856 ± 0.00613	4.8779 ± 0.2155	0.1147 ± 0.0045	1733.6 ± 34.4	1798.4 ± 79.4	1875.0 ± 74.0	0.00	0.37	
16102904-043	0.03654 ± 0.00081	0.2608 ± 0.0192	0.0518 ± 0.0036	231.3 ± 5.1	235.3 ± 17.3		0.00	0.26	
16102904-044	0.03978 ± 0.00100	0.3232 ± 0.0280	0.0589 ± 0.0049	251.5 ± 6.3	284.3 ± 24.6		1.34	0.65	
16102904-045	0.04091 ± 0.00091	0.2690 ± 0.0246	0.0477 ± 0.0042	258.5 ± 5.7	241.9 ± 22.1		0.00	0.52	
16102904-046	0.38493 ± 0.00533	6.6912 ± 0.1880	0.1261 ± 0.0031	2099.3 ± 29.1	2071.4 ± 58.2	2044.0 ± 50.0	0.00	0.21	
16102904-047	0.29429 ± 0.00406	4.6429 ± 0.1328	0.1144 ± 0.0029	1662.9 ± 22.9	1756.9 ± 50.2	1871.0 ± 46.9	0.02	0.04	
16102904-048	0.04014 ± 0.00170	0.3066 ± 0.0564	0.0554 ± 0.0099	253.7 ± 10.7	271.5 ± 50.0		4.01	0.68	
16102904-049	0.29275 ± 0.00388	4.4754 ± 0.1166	0.1109 ± 0.0025	1655.3 ± 21.9	1726.4 ± 45.0	1814.0 ± 40.7	0.00	0.17	
16102904-050	0.24416 ± 0.00432	3.7131 ± 0.1720	0.1103 ± 0.0047	1408.3 ± 24.9	1574.1 ± 72.9	1805.0 ± 77.3	0.00	1.04	
16102904-051	0.03264 ± 0.00124	0.2660 ± 0.0424	0.0591 ± 0.0092	207.0 ± 7.9	239.5 ± 38.2		0.00	0.54	
16102904-052	0.06487 ± 0.00159	0.5319 ± 0.0504	0.0595 ± 0.0054	405.2 ± 10.0	433.1 ± 41.0		0.00	0.81	
16102904-053	0.02641 ± 0.00051	0.1829 ± 0.0132	0.0502 ± 0.0035	168.0 ± 3.2	170.5 ± 12.3		1.14	0.10	
16102904-054	0.02800 ± 0.00101	0.2236 ± 0.0217	0.0579 ± 0.0052	178.0 ± 6.4	204.9 ± 19.9		0.00	0.16	
16102904-055	0.02556 ± 0.00087	0.1755 ± 0.0149	0.0498 ± 0.0039	162.7 ± 5.5	164.2 ± 14.0		0.00	0.80	
16102904-056	0.02648 ± 0.00102	0.1774 ± 0.0215	0.0486 ± 0.0056	168.5 ± 6.5	165.8 ± 20.1		0.89	0.59	
16102904-057	0.02721 ± 0.00101	0.2207 ± 0.0229	0.0588 ± 0.0057	173.1 ± 6.4	202.5 ± 21.0		1.38	0.30	
16102904-058	0.02726 ± 0.00093	0.1925 ± 0.0166	0.0512 ± 0.0041	173.4 ± 5.9	178.7 ± 15.4		0.03	0.23	
16102904-059	0.27383 ± 0.00842	4.3067 ± 0.2041	0.1141 ± 0.0041	1560.2 ± 48.0	1694.6 ± 80.3	1866.0 ± 67.3	0.06	0.10	
16102904-060	0.41313 ± 0.01270	10.7253 ± 0.4970	0.1883 ± 0.0065	2229.2 ± 68.5	2499.5 ± 115.8	2728.0 ± 94.6	0.00	0.10	
16102904-061	0.03280 ± 0.00130	0.2551 ± 0.0314	0.0564 ± 0.0066	208.1 ± 8.3	230.7 ± 28.4		1.06	0.48	
16102904-062	0.25056 ± 0.00403	4.0148 ± 0.1242	0.1162 ± 0.0031	1441.4 ± 23.2	1637.1 ± 50.6	1899.0 ± 50.2	0.01	0.09	
16102904-063	0.28016 ± 0.00442	4.6365 ± 0.1353	0.1200 ± 0.0029	1592.2 ± 25.1	1755.8 ± 51.2	1957.0 ± 48.0	0.07	0.10	
16102904-064	0.03583 ± 0.00119	0.2394 ± 0.0339	0.0476 ± 0.0067	226.9 ± 7.5	214.6 ± 30.9		0.00	0.67	
16102904-065	0.28598 ± 0.00525	4.4046 ± 0.1863	0.1117 ± 0.0043	1621.4 ± 29.8	1713.1 ± 72.5	1828.0 ± 69.7	0.00	0.32	
16102904-066	0.26770 ± 0.00504	4.3085 ± 0.1886	0.1167 ± 0.0046	1529.1 ± 28.8	1694.9 ± 74.2	1907.0 ± 75.4	0.51	0.88	
16102904-067	0.03218 ± 0.00121	0.3287 ± 0.0452	0.0741 ± 0.0098	204.2 ± 7.7	288.5 ± 39.6		0.28	0.76	
16102904-068	0.02653 ± 0.00071	0.1922 ± 0.0201	0.0526 ± 0.0053	168.8 ± 4.5	178.5 ± 18.6		0.00	0.53	
16102904-069	0.02793 ± 0.00054	0.1888 ± 0.0119	0.0490 ± 0.0029	177.6 ± 3.4	175.6 ± 11.1		0.00	0.08	
16102904-070	0.03238 ± 0.00121	0.2700 ± 0.0416	0.0605 ± 0.0090	205.4 ± 7.7	242.7 ± 37.4		2.37	0.80	
16102904-071	0.31729 ± 0.00445	5.0176 ± 0.1546	0.1147 ± 0.0031	1776.5 ± 24.9	1822.2 ± 56.1	1876.0 ± 51.5	0.01	0.05	
16102904-072	0.03098 ± 0.00100	0.2652 ± 0.0343	0.0621 ± 0.0078	196.7 ± 6.4	238.8 ± 30.9		0.00	0.48	
16102904-073	0.02430 ± 0.00073	0.1768 ± 0.0226	0.0528 ± 0.0066	154.8 ± 4.7	165.3 ± 21.2		2.95	0.23	
16102904-074	0.24589 ± 0.00362	3.8003 ± 0.1304	0.1121 ± 0.0035	1417.2 ± 20.9	1592.7 ± 54.7	1834.0 ± 56.8	0.01	0.09	
16102904-075	0.19749 ± 0.00345	3.1387 ± 0.1433	0.1153 ± 0.0049	1161.8 ± 20.3	1442.2 ± 65.8		1.78	0.40	
16102904-076	0.19126 ± 0.00271	2.8637 ± 0.0912	0.1086 ± 0.0031	1128.2 ± 16.0	137				

Appendix1-6 LA-ICP-MS U-Pb isotopic data. Discordant data are shown in gray color. ²⁰⁶Pbc: common ²⁰⁶Pb (%).

No.	Isotopic ratios				Age (Ma)			²⁰⁶ Pbc	Th/U
	²⁰⁶ Pb/ ²³⁸ U	²⁰⁷ Pb/ ²³⁵ U	²⁰⁷ Pb/ ²⁰⁶ Pb	²³⁸ U- ²⁰⁶ Pb	²³⁵ U- ²⁰⁷ Pb	²⁰⁷ Pb/ ²⁰⁶ Pb	²⁰⁶ Pbc		
16102904-092	0.28292 ± 0.00445	4.3663 ± 0.1642	0.1119 ± 0.0038	1606.1 ± 25.2	1705.9 ± 64.2	1831.0 ± 62.6	0.00	0.11	
16102904-093	0.03038 ± 0.00096	0.4095 ± 0.0420	0.0978 ± 0.0095	192.9 ± 6.1	348.5 ± 35.7		0.10	0.53	
16102904-094	0.02942 ± 0.00064	0.2057 ± 0.0165	0.0507 ± 0.0039	186.9 ± 4.1	190.0 ± 15.3		0.00	0.67	
16102904-095	0.03078 ± 0.00083	0.2348 ± 0.0244	0.0553 ± 0.0056	195.4 ± 5.3	214.1 ± 22.3		0.22	0.50	
16102904-096	0.36009 ± 0.00808	7.0130 ± 0.2496	0.1413 ± 0.0039	1982.6 ± 44.5	2113.0 ± 75.2	2243.0 ± 62.0	0.00	0.24	
16102904-097	0.44418 ± 0.00990	11.1868 ± 0.3746	0.1827 ± 0.0046	2369.3 ± 52.8	2538.7 ± 85.0	2678.0 ± 66.9	0.00	0.15	
16102904-098	0.39057 ± 0.00859	7.2424 ± 0.2444	0.1345 ± 0.0034	2125.5 ± 46.7	2141.7 ± 72.3	2158.0 ± 55.2	0.00	0.29	
16102904-099	0.03737 ± 0.00165	0.3181 ± 0.0528	0.0617 ± 0.0099	236.5 ± 10.5	280.5 ± 46.6		0.30	0.61	
16102904-100	0.02218 ± 0.00136	0.2312 ± 0.0517	0.0756 ± 0.0162	141.4 ± 8.7	211.2 ± 47.2		1.12	0.81	
16102904-101	0.01971 ± 0.00084	0.1455 ± 0.0248	0.0535 ± 0.0088	125.8 ± 5.4	138.0 ± 23.5		0.00	0.81	
16102904-102	0.02620 ± 0.00078	0.2116 ± 0.0203	0.0586 ± 0.0054	166.7 ± 5.0	194.9 ± 18.7		0.13	0.77	
16102904-103	0.30731 ± 0.00634	4.9474 ± 0.1586	0.1168 ± 0.0029	1727.4 ± 35.6	1810.3 ± 58.0	1908.0 ± 46.8	0.00	0.11	
16102904-104	0.42986 ± 0.00969	8.6408 ± 0.3537	0.1458 ± 0.0050	2305.1 ± 52.0	2300.8 ± 94.2	2298.0 ± 78.5	0.41	0.32	
16102904-105	0.13720 ± 0.00327	2.1594 ± 0.1088	0.1142 ± 0.0051	828.8 ± 19.8	1168.1 ± 58.9		1.12	0.06	
16102904-106	0.03758 ± 0.00142	0.2621 ± 0.0396	0.0506 ± 0.0074	237.8 ± 9.0	236.4 ± 35.7		2.81	0.85	
16102904-107	0.02573 ± 0.00071	0.1922 ± 0.0172	0.0542 ± 0.0046	163.8 ± 4.5	178.5 ± 15.9		1.14	0.24	
16102904-108	0.02820 ± 0.00097	0.1758 ± 0.0244	0.0452 ± 0.0061	179.3 ± 6.1	164.4 ± 22.9		3.56	0.61	
16102904-109	0.35299 ± 0.00736	6.7426 ± 0.2215	0.1385 ± 0.0035	1948.9 ± 40.7	2078.1 ± 68.3	2209.0 ± 56.1	0.07	0.48	
16102904-110	0.03616 ± 0.00110	0.2615 ± 0.0289	0.0525 ± 0.0056	229.0 ± 6.9	235.9 ± 26.1		0.55	0.83	
16102904-111	0.03952 ± 0.00093	0.2953 ± 0.0197	0.0542 ± 0.0034	249.9 ± 5.9	262.7 ± 17.5		0.25	0.11	
16102904-112	0.02979 ± 0.00091	0.2253 ± 0.0247	0.0549 ± 0.0058	189.2 ± 5.8	206.3 ± 22.6		0.28	0.61	
16102904-113	0.33260 ± 0.00683	5.2677 ± 0.1935	0.1149 ± 0.0035	1851.0 ± 38.0	1863.6 ± 68.4	1878.0 ± 57.2	0.02	0.10	
16102904-114	0.03073 ± 0.00112	0.2215 ± 0.0321	0.0523 ± 0.0073	195.1 ± 7.1	203.2 ± 29.4		0.52	0.62	
16102904-115	0.05762 ± 0.00156	0.4559 ± 0.0399	0.0574 ± 0.0048	361.1 ± 9.8	381.4 ± 33.4		0.72	0.76	
16102904-116	0.03305 ± 0.00106	0.2149 ± 0.0272	0.0471 ± 0.0058	209.6 ± 6.7	197.6 ± 25.0		1.26	0.75	
16102904-117	0.02549 ± 0.00066	0.2191 ± 0.0186	0.0623 ± 0.0050	162.2 ± 4.2	201.1 ± 17.1		0.00	0.43	
16102904-118	0.31322 ± 0.00612	4.9407 ± 0.1920	0.1144 ± 0.0038	1756.5 ± 34.3	1809.2 ± 70.3	1871.0 ± 62.8	0.00	0.20	
16102904-119	0.18903 ± 0.00359	2.8876 ± 0.1049	0.1108 ± 0.0034	1116.1 ± 21.2	1378.6 ± 50.1		0.00	0.04	
16102904-120	0.28063 ± 0.00537	4.1257 ± 0.1533	0.1066 ± 0.0034	1594.5 ± 30.5	1659.4 ± 61.6	1743.0 ± 55.5	0.00	0.59	
16102904-121	0.02864 ± 0.00061	0.2698 ± 0.0151	0.0683 ± 0.0035	182.1 ± 3.9	242.5 ± 13.5		1.83	0.55	
16102904-122	0.03024 ± 0.00139	0.2239 ± 0.0441	0.0537 ± 0.0103	192.0 ± 8.9	205.1 ± 40.4		1.51	0.69	
16102904-123	0.30048 ± 0.00601	4.6116 ± 0.1914	0.1113 ± 0.0040	1693.7 ± 33.9	1751.3 ± 72.7	1821.0 ± 66.2	0.06	0.38	
16102904-124	0.23900 ± 0.00450	3.8138 ± 0.1336	0.1157 ± 0.0034	1381.5 ± 26.0	1595.6 ± 55.9	1892.0 ± 55.9	0.09	0.16	
16102904-125	0.02205 ± 0.00084	0.1810 ± 0.0221	0.0595 ± 0.0069	140.6 ± 5.3	168.9 ± 20.6		0.00	1.12	
16102904-126	0.35778 ± 0.00978	5.5237 ± 0.2266	0.1120 ± 0.0034	1971.7 ± 53.9	1904.2 ± 78.1	1832.0 ± 56.0	0.00	0.19	
16102904-127	0.03806 ± 0.00147	0.3365 ± 0.0408	0.0641 ± 0.0074	240.8 ± 9.3	294.5 ± 35.7		0.35	0.32	
16102904-128	0.02377 ± 0.00076	0.1536 ± 0.0143	0.0469 ± 0.0041	151.4 ± 4.9	145.1 ± 13.5		0.00	0.15	
16102904-129	0.02405 ± 0.00083	0.1877 ± 0.0193	0.0566 ± 0.0055	153.2 ± 5.3	174.7 ± 18.0		0.15	0.18	
16102904-130	0.29029 ± 0.00803	4.5053 ± 0.1947	0.1126 ± 0.0037	1643.0 ± 45.5	1731.9 ± 74.9	1842.0 ± 61.2	0.00	0.38	
16102904-131	0.25012 ± 0.00696	3.9853 ± 0.1764	0.1156 ± 0.0040	1439.1 ± 40.1	1631.1 ± 72.2	1889.0 ± 65.0	0.00	0.01	
16102904-132	0.28710 ± 0.00817	4.6844 ± 0.2243	0.1183 ± 0.0046	1627.0 ± 46.3	1764.4 ± 84.5	1932.0 ± 74.4	0.08	0.32	
16102904-133	0.01950 ± 0.00075	0.1516 ± 0.0192	0.0564 ± 0.0068	124.5 ± 4.8	143.3 ± 18.2		3.60	1.06	
16102904-134	0.03688 ± 0.00235	0.3502 ± 0.0806	0.0689 ± 0.0152	233.5 ± 14.9	304.9 ± 70.2		0.00	0.40	
16102904-135	0.32379 ± 0.01059	6.1761 ± 0.2962	0.1383 ± 0.0049	1808.2 ± 59.1	1801.0 ± 96.0	2207.0 ± 77.4	0.00	0.32	
16102904-136	0.01893 ± 0.00072	0.1453 ± 0.0146	0.0556 ± 0.0052	120.9 ± 4.6	207.7 ± 13.8		0.00	0.53	
16102904-137	0.02880 ± 0.00136	0.2009 ± 0.0339	0.0506 ± 0.0082	183.0 ± 8.7	185.9 ± 31.4		0.00	0.68	
16102904-138	0.37312 ± 0.01241	6.5079 ± 0.3355	0.1265 ± 0.0050	2044.1 ± 68.0	2046.9 ± 105.5	2050.0 ± 80.8	0.00	0.08	
16102904-139	0.27289 ± 0.00904	4.2317 ± 0.2174	0.1125 ± 0.0044	1555.4 ± 51.5	1680.1 ± 86.3	1840.0 ± 72.2	0.00	0.15	
16102904-140	0.01979 ± 0.00085	0.1941 ± 0.0241	0.0712 ± 0.0083	126.3 ± 5.5	180.1 ± 22.3		2.84	0.43	
16102904-141	0.01907 ± 0.00086	0.1442 ± 0.0218	0.0549 ± 0.0079	121.8 ± 5.5	136.8 ± 20.7		0.00	0.65	
16102904-142	0.02544 ± 0.00108	0.1965 ± 0.0161	0.0560 ± 0.0039	161.9 ± 6.9	182.1 ± 15.0		0.00	0.32	
16102904-143	0.02673 ± 0.00111	0.2081 ± 0.0149	0.0564 ± 0.0033	170.1 ± 7.1	191.9 ± 13.7		0.00	0.28	
16102904-144	0.04669 ± 0.00246	0.4855 ± 0.0695	0.0754 ± 0.0100	294.2 ± 15.5	401.8 ± 57.5		0.00	0.71	
16102904-145	0.40162 ± 0.01612	11.1470 ± 0.5418	0.2013 ± 0.0055	2176.5 ± 87.3	2536.4 ± 123.2	2837.0 ± 77.8	0.00	0.35	
16102904-146	0.12799 ± 0.00515	2.0267 ± 0.1038	0.1148 ± 0.0036	776.4 ± 31.2	1124.5 ± 57.6		0.35	0.22	
16102904-147	0.02812 ± 0.00128	0.2365 ± 0.0252	0.0610 ± 0.0059	178.8 ± 8.1	215.6 ± 22.9		0.00	0.26	
16102904-148	0.28564 ± 0.01144	4.4793 ± 0.2220	0.1137 ± 0.0033	1619.7 ± 64.9	1727.1 ± 85.6	1860.0 ± 54.3	0.00	0.08	
16102904-149	0.25526 ± 0.01026	3.9908 ± 0.2028	0.1134 ± 0.0035	1465.5 ± 58.9	1632.3 ± 82.9	1855.0 ± 57.6	0.01	0.10	
16102904-150	0.02933 ± 0.00127	0.2690 ± 0.0230	0.0665 ± 0.0049	186.4 ± 8.1	241.9 ± 20.7		1.15	0.61	
16102904-151	0.05008 ± 0.00184	0.5576 ± 0.0650	0.0807 ± 0.0089	315.0 ± 11.6	449.9 ± 52.4		0.74	0.43	
16102904-152	0.03380 ± 0.00142	0.3504 ± 0.0505	0.0752 ± 0.0104	214.3 ± 9.0	305.0 ± 43.9		0.00	0.48	
16102904-153	0.30920 ± 0.00736	4.7041 ± 0.2071	0.1103 ± 0.0041	1736.7 ± 41.3	1767.9 ± 77.8	1806.0 ± 66.9	0.28	0.37	
16102904-154	0.28924 ± 0.00715	4.5139 ± 0.2204	0.1132 ± 0.0048	1637.7 ± 40.5	1733.5 ± 84.7	1852.0 ± 78.0	0.00	1.35	
16102904-155	0.02746 ± 0.00095	0.2045 ± 0.0256	0.0540 ± 0.0065	174.6 ± 6.0	188.9 ± 23.6		0.00	0.68	
16102904-156	0.33735 ± 0.00751	5.9955 ± 0.2038	0.1289 ± 0.0033	1873.9 ± 41.7	1975.1 ± 67.1	2083.0 ± 53.5	0.00	0.15	
16102904-157	0.26505 ± 0.00608	4.1365 ± 0.1605	0.1132 ± 0.0035	1515.6 ± 34.8	1661.5 ± 64.5	1852.0 ± 58.0	0.22	0.19	
16102904-158	0.32501 ± 0.00774	5.0353 ± 0.2210	0.1124 ± 0.0041	1814.2 ± 43.2	1825.2 ± 80.1	1839.0 ± 67.8	0.08	0.19	
16102904-159	0.36364 ± 0.00806	6.6998 ± 0.2223	0.1335 ± 0.0033	1999.4 ± 44.3	2072.0 ± 68.8	2146.0 ± 53.1	0.07	0.06	
16102904-160	0.02661 ± 0.00112	0.2230 ± 0.0198	0.0608 ± 0.0048	169.3 ± 7.1	204.4 ± 18.2		0.00	0.11	
16102904-161	0.32284 ± 0.01280	5.1099 ± 0.3172	0.1148 ± 0.0055	1803.6 ± 71.5	1837.7 ± 114.1	1877.0 ± 89.7	0.04	0.14	
16102904-162	0.31842 ± 0.01263	5.0536 ± 0.3141	0.1151 ± 0.0055	1782.0 ± 70.7	1828.3 ± 113.6	1882.0 ± 90.1	0.00	0.45	
16102904-163	0.04440 ± 0.00205	0.4294 ± 0.0491	0.0701 ± 0.0073	280.1 ± 12.9	362.7 ± 41.5		0.00	0.77	
16102904-164	0.03077 ± 0.00151	0.3307 ± 0.0422	0.0780 ± 0.0092	195.3 ± 9.6	290.1 ± 37.0		0.18	1.01	
16102904-165	0.03546 ± 0.00194	0.4248 ± 0.0643	0.0869 ± 0.0123	224.6 ± 12.3	359.5 ± 54.4		1.84	0.95	
16102904-166	0.29625 ± 0.01180	4.8286 ± 0.3049	0.1182 ± 0.0058	1672.7 ± 66.6	1789.8 ± 113.0	1930.0 ± 94.6	0.00	0.11	
16102904-167	0.03813 ± 0.00163	0.2914 ± 0.0278	0.0554 ± 0.0047	241.2 ± 10.3	259.6 ± 24.8		1.33	0.47	
16102904-168	0.02452 ± 0.00100	0.1769 ± 0.0142	0.0523 ± 0.0036	156.2 ± 6.4	165.4 ± 13.3		0.53	0.29	
16102904-169	0.03047 ± 0.00052	0.2217 ± 0.0146	0.0528 ± 0.0033	193.5 ± 3.3	203.3 ± 13.4		0.00	1.35	
16102904-170	0.03147 ± 0.00075	0.2325 ± 0.0230	0.0536 ± 0.0052	199.8 ± 4.8	212.3 ± 21.0		0.00	0.43	
16102904-171	0.01949 ± 0.00069	0.1347 ± 0.0214	0.0501 ± 0.0078	124.4 ± 4.4	128.3 ± 20.4		0.00	1.99	
16102904-172	0.03138 ± 0.00176	0.2628 ± 0.0620	0.0608 ± 0.0139	199.2 ± 11.2	236.9 ± 55.9		0.00	0.43	
16102904-173	0.31676 ± 0.00416	4.8768 ± 0.1659	0.1117 ± 0.0035	1773.9 ± 23.3	1798.2 ± 61.2	1827.0 ± 57.3	0.21	0.49	
16102904-174	0.02123 ± 0.00072	0.1600 ± 0.0233	0.0547 ± 0.0077	135.4 ± 4.6	150.7 ± 22.0		1.49	1.06	
16102904-175	0.02686 ± 0.00040	0.1799 ± 0.0093	0.0486 ± 0.0024	170.9 ± 2.6	168.0 ± 8.7		0.07	0.31	
16102904-176	0.03166 ± 0.00087	0.2218 ± 0.0259	0.0508 ± 0.0058	200.9 ± 5.5	203.4 ± 23.8		2.47	0.63	
16102904-177									

Appendix1-7 LA-ICP-MS U-Pb isotopic data. Discordant data are shown in gray color. ²⁰⁶Pbc: common ²⁰⁶Pb (%).

No.	Isotopic ratios			Age (Ma)			²⁰⁶ Pbc	Th/U
	²⁰⁶ Pb/ ²³⁸ U	²⁰⁷ Pb/ ²³⁵ U	²⁰⁷ Pb/ ²⁰⁶ Pb	²³⁸ U- ²⁰⁶ Pb	²³⁵ U- ²⁰⁷ Pb	²⁰⁷ Pb/ ²⁰⁶ Pb		
16102904-193	0.01970 ± 0.00083	0.1551 ± 0.0225	0.0571 ± 0.0079	125.7 ± 5.3	146.4 ± 21.3		0.00	1.04
16102904-194	0.02914 ± 0.00092	0.2119 ± 0.0174	0.0527 ± 0.0040	185.1 ± 5.8	195.1 ± 16.0		1.59	0.80
16102904-195	0.03368 ± 0.00135	0.2552 ± 0.0416	0.0549 ± 0.0087	213.6 ± 8.6	230.8 ± 37.6		0.06	0.87
16102904-196	0.02772 ± 0.00069	0.1854 ± 0.0143	0.0485 ± 0.0036	176.3 ± 4.4	172.7 ± 13.4		0.78	0.34
16102904-197	0.02944 ± 0.00077	0.1778 ± 0.0160	0.0438 ± 0.0038	187.0 ± 4.9	166.2 ± 15.0		1.38	0.42
16102904-198	0.32378 ± 0.00671	5.0899 ± 0.1632	0.1140 ± 0.0028	1808.1 ± 37.5	1834.4 ± 58.8	1865.0 ± 45.6	0.02	0.19
16102904-199	0.02586 ± 0.00077	0.2021 ± 0.0208	0.0567 ± 0.0056	164.6 ± 4.9	186.9 ± 19.2		0.00	0.47
16102904-200	0.03003 ± 0.00071	0.2062 ± 0.0137	0.0498 ± 0.0031	190.8 ± 4.5	190.3 ± 12.6		0.90	0.46
16102904-201	0.03166 ± 0.00084	0.2313 ± 0.0195	0.0530 ± 0.0042	201.0 ± 5.3	211.2 ± 17.8		2.66	1.59
16102904-202	0.03326 ± 0.00139	0.3009 ± 0.0475	0.0656 ± 0.0100	210.9 ± 8.8	267.1 ± 42.2		0.00	0.57
16102904-203	0.02803 ± 0.00063	0.1989 ± 0.0093	0.0515 ± 0.0021	178.2 ± 4.0	184.2 ± 8.6		0.14	0.20
16102904-204	0.02697 ± 0.00064	0.1848 ± 0.0114	0.0497 ± 0.0028	171.5 ± 4.1	172.2 ± 10.7		0.26	0.45
16102904-205	0.03578 ± 0.00082	0.2447 ± 0.0131	0.0496 ± 0.0024	226.6 ± 5.2	222.2 ± 11.9		0.00	0.07
16102904-206	0.03201 ± 0.00084	0.2337 ± 0.0182	0.0529 ± 0.0039	203.1 ± 5.3	213.2 ± 16.6		0.12	0.56
16102904-207	0.03039 ± 0.00130	0.2006 ± 0.0378	0.0479 ± 0.0088	193.0 ± 8.2	185.6 ± 35.0		1.97	0.40
16102904-208	0.02129 ± 0.00064	0.1642 ± 0.0169	0.0559 ± 0.0055	135.8 ± 4.1	154.3 ± 15.8		2.64	1.08
16102904-209	0.04582 ± 0.00108	0.4105 ± 0.0216	0.0648 ± 0.0031	289.4 ± 6.8	349.2 ± 18.4		0.17	0.54
16102904-210	0.03074 ± 0.00081	0.2326 ± 0.0179	0.0549 ± 0.0040	195.2 ± 5.1	212.3 ± 16.4		1.09	0.46
16102904-211	0.03171 ± 0.00071	0.2386 ± 0.0203	0.0546 ± 0.0045	201.2 ± 4.5	217.3 ± 18.5		0.00	0.67
16102904-212	0.03023 ± 0.00110	0.3291 ± 0.0432	0.0789 ± 0.0100	192.0 ± 7.0	288.8 ± 38.0		4.69	0.60
16102904-213	0.01906 ± 0.00052	0.1253 ± 0.0145	0.0477 ± 0.0054	121.7 ± 3.3	119.8 ± 13.9		2.01	1.70
16102904-214	0.03134 ± 0.00101	0.2744 ± 0.0344	0.0635 ± 0.0077	199.0 ± 6.4	246.2 ± 30.8		0.00	0.29
16102904-215	0.01707 ± 0.00053	0.1027 ± 0.0149	0.0436 ± 0.0062	109.1 ± 3.4	99.2 ± 14.4		0.00	0.51
16102904-216	0.37517 ± 0.00525	6.0339 ± 0.1301	0.1166 ± 0.0019	2053.7 ± 28.8	1980.7 ± 42.7	1906.0 ± 31.3	0.03	0.11