

Supplementary table. SHRIMP U–Th–Pb zircon results for the studied rocks.

Spot	$^{206}\text{Pb}_c$ <sup>1</sup> (%)	U (ppm)	Th (ppm)	Th/U	$^{238}\text{U}$ <sup>2</sup> / $^{206}\text{Pb}$	±%	$^{207}\text{Pb}$ <sup>2</sup> / $^{206}\text{Pb}$	±%	$^{206}\text{Pb}/^{238}\text{U}$ <sup>3</sup> Age (Ma)
<b><i>Diorite xenolith</i></b>									
1125-1a_2.1	0.70	1563	1845	1.22	24.4	0.6	0.0572	0.7	256.8 ±1.4
1125-1a_3.1	0.16	1335	2283	1.77	23.6	0.6	0.0524	0.7	266.9 ±1.5
1125-1a_4.1	0.04	786	71	0.09	23.9	0.9	0.0524	1.1	264.3 ±2.4
1125-1a_4.2	0.08	2880	4784	1.72	23.5	0.5	0.0519	0.6	269.1 ±1.5
1125-1a_4.3	0.91	995	1158	1.20	24.5	0.9	0.0585	1.0	255.6 ±2.2
1125-1a_5.1	0.11	3114	2590	0.86	24.8	0.5	0.0517	0.9	254.3 ±1.4
1125-1a_5.2	0.90	1259	1668	1.37	22.9	0.6	0.0621	0.8	271.6 ±1.6
1125-1a_6.1	14.57	394	165	0.43	20.0	0.7	0.1614	0.9	272.7 ±2.0
1125-1a_6.2	2.86	2495	3568	1.48	24.2	0.6	0.0736	0.5	254.3 ±1.4
1125-1a_7.1	–	1245	367	0.30	24.8	0.6	0.0515	0.9	254.7 ±1.5
1125-1a_8.1	0.01	3889	5559	1.48	23.5	0.6	0.0517	0.5	268.4 ±1.5
1125-1a_9.1	0.02	3687	7546	2.11	24.1	0.5	0.0521	0.5	262.1 ±1.4
1125-1a_10.1	10.68	3497	7198	2.13	26.5	2.7	0.1467	13.6	210.8 ±8.2
1125-1a_10.2	0.14	1257	1330	1.09	24.4	0.6	0.0533	1.0	258.3 ±1.5
1125-1a_11.1	1.28	2087	2501	1.24	28.3	0.6	0.0682	1.2	218.7 ±1.2
1125-1a_12.1	0.34	638	159	0.26	26.8	0.6	0.0546	1.2	235.0 ±1.5
1125-1a_13.1	0.04	1589	2990	1.94	23.6	0.6	0.0525	0.7	266.9 ±1.5
1125-1a_13.2	0.43	938	255	0.28	24.8	0.6	0.0549	2.3	254.1 ±1.6
1125-1a_14.1	0.00	3217	5205	1.67	24.0	0.7	0.0522	0.5	262.9 ±1.7
1125-1a_15.1	0.05	1570	2347	1.54	23.6	1.3	0.0515	0.8	267.9 ±3.5
1125-1a_16.1	0.07	2512	3121	1.28	23.8	0.6	0.0526	0.6	265.4 ±1.4
1125-1a_17.1	0.15	890	179	0.21	24.5	0.9	0.0525	1.1	257.3 ±2.2
1125-1a_17.2	0.09	2125	662	0.32	24.4	0.7	0.0519	0.7	258.9 ±1.7
1125-1a_18.1	0.19	2120	324	0.16	24.7	0.6	0.0546	0.7	254.9 ±1.4
1125-1a_19.1	1.07	1871	742	0.41	26.2	0.7	0.0665	1.2	236.7 ±1.6
1125-1a_20.1	0.06	2941	4155	1.46	23.8	1.1	0.0525	0.6	265.5 ±3.0
1125-1a_21.1	0.27	2529	4765	1.95	23.9	0.6	0.0543	0.6	263.5 ±1.7
1125-1a_21.2	2.36	2667	931	0.36	23.4	0.6	0.0764	0.5	261.5 ±1.5
1125-1a_22.1	0.23	3484	5331	1.58	23.4	0.5	0.0549	1.4	268.4 ±1.5
1125-1a_23.1	0.02	3687	6302	1.77	23.5	0.8	0.0514	0.5	268.3 ±2.1
1125-1a_24.1	0.33	1840	534	0.30	24.0	0.6	0.0555	0.8	262.3 ±1.5
<b><i>Quartzofeldspathic dyke</i></b>									
1125-1b_1.1	3.76	5092	1754	0.36	29.5	0.5	0.1030	0.4	200.8 ±1.1
1125-1b_2.1	–	565	301	0.55	26.1	0.7	0.0510	1.5	242.6 ±1.6
1125-1b_2.2	0.16	1622	1753	1.12	28.0	0.6	0.0532	0.8	225.1 ±1.3
1125-1b_3.1	0.04	2271	411	0.19	25.1	1.0	0.0527	0.7	251.1 ±2.4

1125-1b_3.2	0.20	1488	807	0.56	25.4	0.6	0.0509	1.0	249.0	±1.4
1125-1b_4.1	2.82	1768	874	0.51	25.3	0.8	0.0824	2.1	240.4	±1.9
1125-1b_4.2	1.51	3323	959	0.30	30.3	0.6	0.0706	0.6	204.2	±1.1
1125-1b_5.1	–	245	96	0.41	25.6	0.9	0.0535	2.2	246.6	±2.2
1125-1b_5.2	3.08	1557	3004	1.99	30.8	2.1	0.0941	1.9	194.6	±4.0
1125-1b_6.1	–	296	151	0.53	26.8	2.2	0.0515	2.0	235.7	±5.1
1125-1b_6.2	2.86	1293	487	0.39	25.4	0.8	0.0904	0.9	237.0	±2.0
1125-1b_7.1	45.57	5942	3407	0.59	22.3	0.5	0.4078	0.2	157.4	±0.9
1125-1b_9.1	1.69	1649	555	0.35	26.5	0.6	0.0635	0.7	234.7	±1.3
1125-1b_9.2	0.15	1009	835	0.85	28.2	0.8	0.0526	1.1	224.0	±1.7
1125-1b_10.1	15.56	8276	3266	0.41	44.1	4.5	0.1703	0.7	122.6	±5.5
1125-1b_11.1	0.60	2522	440	0.18	26.0	0.6	0.0560	0.6	241.4	±1.3
1125-1b_11.2	2.77	1097	268	0.25	27.0	0.6	0.0741	0.9	227.7	±1.4
1125-1b_12.1	9.19	12176	6841	0.58	70.0	0.6	0.1262	1.7	82.4	±0.6
1125-1b_13.1	1.11	2503	1491	0.62	27.4	0.6	0.0604	1.3	228.6	±1.5
1125-1b_13.2	1.39	330	216	0.68	28.6	0.7	0.0551	1.8	220.1	±1.6
1125-1b_14.1	0.45	2865	230	0.08	27.4	0.5	0.0551	0.6	230.1	±1.2
1125-1b_14.2	0.47	1892	228	0.12	26.9	0.6	0.0545	1.6	234.0	±1.3
1125-1b_15.1	10.43	7678	2041	0.27	39.5	0.5	0.1326	0.3	144.5	±0.8
1125-1b_15.2	0.07	702	327	0.48	24.5	0.6	0.0513	1.2	257.7	±1.6
1125-1b_16.1	2.83	310	45	0.15	26.0	1.4	0.0770	1.5	235.4	±3.4
1125-1b_16.2	14.76	787	414	0.54	23.0	0.7	0.1672	1.4	235.1	±1.9
1125-1b_17.1	34.62	6642	710	0.11	24.5	1.8	0.3270	3.1	169.2	±4.5
1125-1b_18.1	19.75	7285	5521	0.78	39.9	2.4	0.2069	6.6	128.1	±4.1
1125-1b_19.1	8.11	7191	2584	0.37	37.5	0.7	0.1146	1.0	156.1	±1.1
1125-1b_20.1	25.66	7740	2798	0.37	33.1	1.5	0.2468	4.0	144.7	±3.2
1125-1b_21.1	24.92	6401	1991	0.32	38.5	4.2	0.2392	1.7	126.0	±5.3
1125-1b_8.2	0.45	1969	805	0.42	28.5	1.8	0.0550	0.8	220.8	±3.9
1125-1b_22.1	12.82	4371	632	0.15	22.6	1.2	0.1440	0.4	247.8	±2.9
1125-1b_23.1	17.04	7550	3697	0.51	45.4	1.1	0.1820	3.5	117.0	±1.7
1125-1b_24.1	9.35	7829	2672	0.35	42.9	0.5	0.1224	1.0	134.9	±0.7
1125-1b_25.1	6.05	3591	495	0.14	26.9	1.3	0.0903	0.5	223.7	±2.9
1125-1b_26.1	0.23	556	456	0.85	25.9	0.7	0.0512	1.3	244.0	±1.6
1125-1b_26.2	8.31	3210	986	0.32	28.4	2.0	0.1192	0.7	204.5	±4.0
1125-1b_27.1	0.61	971	1528	1.63	27.9	1.8	0.0575	0.9	225.2	±4.0
1125-1b_28.1	42.35	8406	3859	0.47	28.5	2.2	0.3945	0.1	126.6	±2.8
1125-1b_29.1	1.57	5004	958	0.20	32.1	3.3	0.0600	2.5	195.2	±6.4
1125-1b_29.2	0.28	165	102	0.64	24.9	0.9	0.0510	2.4	253.9	±2.3
1125-1b_30.1	29.86	8147	3226	0.41	36.1	1.1	0.2850	1.0	124.2	±1.5
0619-2_81.1	0.36	6163	1162	0.19	24.6	0.9	0.0543	0.4	255.7	±2.2
0619-2_81.2	5.18	3523	1270	0.37	27.9	1.0	0.0938	2.6	215.3	±2.3
0619-2_82.1	6.31	8656	1721	0.21	48.1	1.0	0.1029	1.2	123.7	±1.3
0619-2_83.1	10.62	7514	1533	0.21	26.1	2.3	0.1402	4.9	216.3	±5.3

0619-2_84.1	12.80	8157	2291	0.29	37.2	1.1	0.1469	6.3	149.8	±2.5
0619-2_85.1	23.52	10315	5719	0.57	50.4	1.1	0.2572	1.0	95.3	±1.1
0619-2_86.1	9.80	7915	1283	0.17	38.1	1.0	0.1261	1.8	150.9	±1.6
0619-2_87.1	2.62	9773	1124	0.12	42.8	1.9	0.0722	0.5	144.7	±2.7
0619-2_88.1	1.80	1879	449	0.25	27.6	1.1	0.0659	0.9	225.2	±2.4
0619-2_89.1	6.75	5657	2112	0.39	44.0	1.8	0.1071	0.9	134.4	±2.5
0619-2_90.1	22.22	7002	2866	0.42	37.4	1.9	0.2261	3.3	132.7	±3.0
0619-2_91.1	0.32	1486	124	0.09	24.5	1.1	0.0536	1.0	257.0	±2.8
0619-2_92.1	1.10	4209	715	0.18	24.2	1.1	0.0585	1.5	258.5	±2.8
0619-2_93.1	12.04	4540	708	0.16	26.1	1.1	0.1512	0.5	213.0	±2.3
0619-2_94.1	9.21	4428	1473	0.34	38.3	1.1	0.1229	6.3	150.8	±2.3
0619-2_95.1	2.36	7685	1267	0.17	40.9	1.1	0.0705	0.5	151.7	±1.6
0619-2_96.1	0.10	6742	750	0.11	23.7	1.1	0.0524	0.5	265.8	±2.8
0619-2_97.1	8.84	2729	707	0.27	24.4	1.1	0.1225	1.6	235.8	±2.6
0619-2_98.1	0.47	3561	536	0.16	27.5	1.1	0.0539	0.7	229.0	±2.5
0619-2_99.1	0.83	3750	349	0.10	25.5	1.1	0.0579	0.7	245.5	±2.6
0619-2_100.1	19.80	7110	1421	0.21	30.6	1.2	0.2030	4.9	167.2	±3.3
0619-2_100.2	7.11	7073	1236	0.18	39.9	1.1	0.1062	1.2	148.4	±1.7
0619-2_101.1	25.85	16862	4640	0.28	52.3	1.1	0.2516	4.3	91.0	±1.9
0619-2_101.2	0.45	970	455	0.48	24.9	1.1	0.0538	1.3	252.6	±2.8
0619-2_102.1	1.41	4991	1005	0.21	29.3	1.1	0.0621	2.5	213.1	±2.4
0619-2_1.3	0.65	6555	1802	0.28	31.1	1.1	0.0568	0.6	202.3	±2.2

***Onjeongri granodiorite***

0423-3-4.1	2.36	204	140	0.71	76.4	4.2	0.0496	5.1	83.6	±3.5
0423-3-5.1	1.11	228	148	0.67	80.3	1.7	0.0500	5.0	79.5	±1.4
0423-3-6.1	0.73	341	192	0.58	76.1	2.2	0.0495	3.9	84.0	±1.8
0423-3-7.1	0.71	121	74	0.63	75.7	1.9	0.0479	7.2	84.6	±1.6
0423-3-8.1	–	251	219	0.90	78.8	2.2	0.0518	4.6	80.9	±1.8
0423-3-9.1	–	178	112	0.65	75.1	2.7	0.0473	5.7	85.3	±2.3
0423-3-10.1	–	1204	81	0.07	3.3	1.7	0.1121	0.3	1834.2	±5.4 <sup>†</sup>
0423-3-10.2	0.61	123	79	0.66	79.3	2.5	0.0524	6.2	80.3	±2.0
0423-3-11.1	1.64	260	217	0.86	76.3	1.7	0.0498	4.6	83.7	±1.5
0423-3-12.1	–	266	166	0.64	74.9	2.2	0.0481	4.6	85.5	±1.9
0423-3-13.1	0.28	299	183	0.63	78.4	2.1	0.0471	4.3	81.7	±1.7
0423-3-14.1	1.51	282	200	0.73	75.2	1.7	0.0486	4.4	85.0	±1.4
0423-3-15.1	0.48	1190	2419	2.10	75.4	1.7	0.0475	2.0	85.0	±1.4
0423-3-15.2	0.54	1837	1800	1.01	74.3	1.8	0.0581	4.3	85.0	±1.6
0423-3-16.1	–	164	103	0.65	70.3	1.8	0.0451	6.2	91.3	±1.7

1. Common lead fractions based on <sup>204</sup>Pb counts.

2. Measured data uncorrected for common lead. Errors are at 1σ level.

3. <sup>206</sup>Pb/<sup>238</sup>U ages corrected by assuming <sup>206</sup>Pb/<sup>238</sup>U-<sup>207</sup>Pb/<sup>235</sup>U age-concordance.

† <sup>204</sup>Pb corrected <sup>207</sup>Pb/<sup>206</sup>Pb age for older than 1000 Ma.

–: not detected