

Table S1

Zircon U-Pb data of the metatexite, diatexite and biotite monzogranite from Fuhuling in Yunkai region.

| Spot | Th(ppm) | U(ppm) | Th/U | ²⁰⁷ Pb/ ²⁰⁶ Pb | | ²⁰⁷ Pb/ ²³⁵ U | | ²⁰⁶ Pb/ ²³⁸ U | | ²⁰⁷ Pb/ ²⁰⁶ Pb | | ²⁰⁷ Pb/ ²³⁵ U | | ²⁰⁶ Pb/ ²³⁸ U | | Disc. ^b |
|-----------------|---------|--------|--------|--------------------------------------|---------|-------------------------------------|---------|-------------------------------------|---------|--------------------------------------|-----|-------------------------------------|----|-------------------------------------|----|--------------------|
| | | | | Ratios | 1σ | Ratios | 1σ | Ratios | 1σ | Ages(Ma) | 1σ | Ages(Ma) | 1σ | Ages(Ma) | 1σ | |
| SPM Metatexite | | | | | | | | | | | | | | | | |
| 1r ^a | 223 | 1628 | 0.14 | 0.05878 | 0.00185 | 0.57949 | 0.01817 | 0.07126 | 0.00071 | 567 | 70 | 464 | 12 | 444 | 4 | 5% |
| 2c | 311 | 693 | 0.45 | 0.07577 | 0.00212 | 1.75184 | 0.04863 | 0.16694 | 0.00163 | 1100 | 56 | 1028 | 18 | 995 | 9 | 3% |
| 3c | 267 | 1560 | 0.17 | 0.07803 | 0.00193 | 1.80065 | 0.05035 | 0.16626 | 0.00270 | 1148 | 49 | 1046 | 18 | 991 | 15 | 5% |
| 4r | 1189 | 4528 | 0.26 | 0.05132 | 0.00154 | 0.27196 | 0.00824 | 0.03858 | 0.00057 | 254 | 70 | 244 | 7 | 244 | 4 | 1% |
| 5r | 384 | 742 | 0.52 | 0.06266 | 0.00257 | 0.63310 | 0.02561 | 0.07292 | 0.00081 | 698 | 89 | 498 | 16 | 454 | 5 | 10% |
| 6r | 595 | 1007 | 0.59 | 0.05515 | 0.00288 | 0.53185 | 0.02149 | 0.07092 | 0.00079 | 417 | 117 | 433 | 14 | 442 | 5 | 2% |
| 7r | 845 | 1156 | 0.73 | 0.05177 | 0.00174 | 0.50195 | 0.01634 | 0.07032 | 0.00064 | 276 | 78 | 413 | 11 | 438 | 4 | 6% |
| 8c | 149 | 867 | 0.17 | 0.06714 | 0.00190 | 1.44322 | 0.04035 | 0.15520 | 0.00132 | 843 | 58 | 907 | 17 | 930 | 7 | 2% |
| 9r | 509 | 878 | 0.58 | 0.05914 | 0.00243 | 0.58266 | 0.02185 | 0.07218 | 0.00090 | 572 | 91 | 466 | 14 | 449 | 5 | 4% |
| 10r | 618 | 1402 | 0.44 | 0.05791 | 0.00220 | 0.57431 | 0.02081 | 0.07163 | 0.00091 | 528 | 83 | 461 | 13 | 446 | 5 | 3% |
| 11r | 496 | 1120 | 0.44 | 0.06050 | 0.00411 | 0.58466 | 0.03323 | 0.07061 | 0.00084 | 620 | 142 | 467 | 21 | 440 | 5 | 6% |
| 12r | 448 | 817 | 0.55 | 0.05410 | 0.00218 | 0.53397 | 0.02217 | 0.07097 | 0.00083 | 376 | 91 | 434 | 15 | 442 | 5 | 2% |
| 13r | 702 | 1122 | 0.63 | 0.05735 | 0.00199 | 0.55604 | 0.01855 | 0.07054 | 0.00075 | 506 | 81 | 449 | 12 | 439 | 5 | 2% |
| 14r | 391 | 773 | 0.51 | 0.06316 | 0.00302 | 0.61384 | 0.02767 | 0.07136 | 0.00104 | 722 | 102 | 486 | 17 | 444 | 6 | 9% |
| 15r | 425 | 803 | 0.53 | 0.06131 | 0.00271 | 0.60107 | 0.02707 | 0.07091 | 0.00092 | 650 | 94 | 478 | 17 | 442 | 6 | 8% |
| 16r | 480 | 814 | 0.59 | 0.05742 | 0.00242 | 0.55919 | 0.02361 | 0.07037 | 0.00077 | 509 | 93 | 451 | 15 | 438 | 5 | 3% |
| 17r | 182 | 359 | 0.51 | 0.08061 | 0.00285 | 1.83868 | 0.06430 | 0.16557 | 0.00173 | 1213 | 69 | 1059 | 23 | 988 | 10 | 7% |
| 18r | 610 | 882 | 0.69 | 0.05959 | 0.00227 | 0.58000 | 0.02196 | 0.07054 | 0.00067 | 589 | 114 | 464 | 14 | 439 | 4 | 6% |
| 19r | 713 | 1185 | 0.60 | 0.05849 | 0.00234 | 0.57359 | 0.02264 | 0.07138 | 0.00081 | 550 | 89 | 460 | 15 | 444 | 5 | 4% |
| 20r | 1411 | 1675 | 0.84 | 0.05643 | 0.00227 | 0.30127 | 0.01229 | 0.03866 | 0.00043 | 478 | 95 | 267 | 10 | 245 | 3 | 9% |
| 21c | 305 | 494 | 0.62 | 0.05831 | 0.00441 | 0.69792 | 0.07441 | 0.09254 | 0.00238 | 543 | 165 | 538 | 45 | 571 | 14 | 6% |
| 22c | 72 | 1603 | 0.045 | 0.08291 | 0.01673 | 1.64294 | 0.16003 | 0.16663 | 0.00330 | 1278 | 402 | 987 | 61 | 994 | 18 | 1% |
| 23c | 500 | 637 | 0.79 | 0.07892 | 0.00249 | 1.96307 | 0.06171 | 0.18053 | 0.00181 | 1170 | 63 | 1103 | 21 | 1070 | 10 | 3% |
| 24c | 296 | 1842 | 0.16 | 0.07294 | 0.00508 | 1.16300 | 0.05374 | 0.12167 | 0.00218 | 1013 | 141 | 783 | 25 | 740 | 13 | 6% |
| 25r | 628 | 1059 | 0.59 | 0.05569 | 0.00189 | 0.53950 | 0.01800 | 0.07045 | 0.00071 | 439 | 81 | 438 | 12 | 439 | 4 | 1% |
| 26r | 364 | 607 | 0.60 | 0.05990 | 0.00256 | 0.56944 | 0.02340 | 0.06967 | 0.00073 | 598 | 97 | 458 | 15 | 434 | 4 | 6% |
| 27r | 389 | 1284 | 0.30 | 0.05548 | 0.00174 | 0.55492 | 0.01740 | 0.07249 | 0.00071 | 432 | 69 | 448 | 11 | 451 | 4 | 1% |
| 28r | 356 | 788 | 0.45 | 0.05497 | 0.00223 | 0.53642 | 0.02092 | 0.07117 | 0.00073 | 409 | 91 | 436 | 14 | 443 | 4 | 2% |
| 29r | 201 | 635 | 0.32 | 0.06091 | 0.00269 | 0.59466 | 0.02579 | 0.07070 | 0.00087 | 635 | 94 | 474 | 16 | 440 | 5 | 8% |
| 30r | 464 | 833 | 0.56 | 0.05324 | 0.00172 | 0.52416 | 0.01744 | 0.07110 | 0.00072 | 339 | 72 | 428 | 12 | 443 | 4 | 3% |
| 31r | 1115 | 1147 | 0.97 | 0.04883 | 0.00200 | 0.25521 | 0.01039 | 0.03790 | 0.00035 | 139 | 94 | 231 | 8 | 240 | 2 | 4% |
| 32c | 1092 | 1569 | 0.70 | 0.06380 | 0.00159 | 1.06287 | 0.03684 | 0.11823 | 0.00246 | 744 | 54 | 735 | 18 | 720 | 14 | 2% |
| 33r | 444 | 756 | 0.59 | 0.05485 | 0.00203 | 0.54042 | 0.01936 | 0.07128 | 0.00070 | 406 | 83 | 439 | 13 | 444 | 4 | 1% |
| 34c | 501 | 336 | 1.49 | 0.05202 | 0.00423 | 0.63970 | 0.05589 | 0.08957 | 0.00136 | 287 | 187 | 502 | 35 | 553 | 8 | 9% |
| 35c | 472 | 995 | 0.47 | 0.04993 | 0.00204 | 0.47986 | 0.02005 | 0.06998 | 0.00079 | 191 | 92 | 398 | 14 | 436 | 5 | 9% |
| 36c | 930 | 1382 | 0.67 | 0.06236 | 0.00224 | 1.17795 | 0.04686 | 0.13633 | 0.00127 | 687 | 76 | 790 | 22 | 824 | 7 | 4% |
| 37r | 202 | 819 | 0.25 | 0.05047 | 0.00201 | 0.48554 | 0.02018 | 0.06999 | 0.00070 | 217 | 93 | 402 | 14 | 436 | 4 | 8% |
| 38r | 2 | 251 | 0.0068 | 0.05883 | 0.00553 | 0.29277 | 0.02567 | 0.03759 | 0.00070 | 561 | 206 | 261 | 20 | 238 | 4 | 10% |
| 39r | 400 | 691 | 0.58 | 0.05183 | 0.00253 | 0.50224 | 0.02689 | 0.07059 | 0.00093 | 280 | 113 | 413 | 18 | 440 | 6 | 6% |
| FHM Metatexite | | | | | | | | | | | | | | | | |
| 1c | 4366 | 4674 | 0.93 | 0.06547 | 0.00263 | 0.87329 | 0.04157 | 0.09506 | 0.00097 | 791 | 85 | 637 | 23 | 585 | 6 | 9% |
| 2c | 2054 | 1256 | 1.63 | 0.06398 | 0.00167 | 1.15850 | 0.03090 | 0.13097 | 0.00117 | 743 | 56 | 781 | 15 | 793 | 7 | 2% |
| 3r | 419 | 742 | 0.56 | 0.05640 | 0.00483 | 0.53508 | 0.05049 | 0.06961 | 0.00223 | 478 | 195 | 435 | 33 | 434 | 13 | 1% |

Table S1 (Continued)

| Spot | Th(ppm) | U(ppm) | Th/U | ²⁰⁷ Pb/ ²⁰⁶ Pb | | ²⁰⁷ Pb/ ²³⁵ U | | ²⁰⁶ Pb/ ²³⁸ U | | ²⁰⁷ Pb/ ²⁰⁶ Pb | | ²⁰⁷ Pb/ ²³⁵ U | | ²⁰⁶ Pb/ ²³⁸ U | | Disc. ^b |
|----------------|---------|--------|-------|--------------------------------------|---------|-------------------------------------|---------|-------------------------------------|---------|--------------------------------------|-----|-------------------------------------|----|-------------------------------------|----|--------------------|
| | | | | Ratios | 1σ | Ratios | 1σ | Ratios | 1σ | Ages(Ma) | 1σ | Ages(Ma) | 1σ | Ages(Ma) | 1σ | |
| 4r | 224 | 1468 | 0.15 | 0.05913 | 0.00189 | 0.58794 | 0.02475 | 0.07061 | 0.00179 | 572 | 69 | 470 | 16 | 440 | 11 | 7% |
| 5c | 284 | 2689 | 0.11 | 0.06851 | 0.00173 | 1.17669 | 0.03234 | 0.12425 | 0.00147 | 883 | 84 | 790 | 15 | 755 | 8 | 5% |
| 6c | 120 | 3311 | 0.036 | 0.06844 | 0.00138 | 1.14422 | 0.02547 | 0.12062 | 0.00140 | 883 | 43 | 775 | 12 | 734 | 8 | 6% |
| 7c | 132 | 352 | 0.38 | 0.16186 | 0.00315 | 10.11620 | 0.21977 | 0.45201 | 0.00606 | 2475 | 33 | 2445 | 20 | 2404 | 27 | 2% |
| 8c | 1356 | 1366 | 0.99 | 0.07038 | 0.00148 | 1.63682 | 0.03717 | 0.16745 | 0.00179 | 939 | 44 | 984 | 14 | 998 | 10 | 1% |
| 9c | 107 | 1015 | 0.11 | 0.06290 | 0.00169 | 0.89589 | 0.02402 | 0.10260 | 0.00079 | 706 | 53 | 650 | 13 | 630 | 5 | 3% |
| 10c | 392 | 2157 | 0.18 | 0.06781 | 0.00167 | 1.13764 | 0.03332 | 0.12027 | 0.00197 | 863 | 56 | 771 | 16 | 732 | 11 | 5% |
| 11c | 118 | 1926 | 0.061 | 0.06269 | 0.00151 | 1.06238 | 0.02833 | 0.12219 | 0.00191 | 698 | 47 | 735 | 14 | 743 | 11 | 1% |
| 12c | 143 | 663 | 0.22 | 0.15576 | 0.00311 | 9.70273 | 0.19965 | 0.44778 | 0.00410 | 2410 | 34 | 2407 | 19 | 2385 | 18 | 1% |
| 13r | 965 | 10664 | 0.091 | 0.05671 | 0.00406 | 0.56935 | 0.03633 | 0.07203 | 0.00062 | 480 | 155 | 458 | 24 | 448 | 4 | 2% |
| 14c | 534 | 2298 | 0.23 | 0.07942 | 0.00204 | 2.12030 | 0.11148 | 0.17807 | 0.00727 | 1183 | 50 | 1155 | 36 | 1056 | 40 | 9% |
| 15r | 272 | 2176 | 0.12 | 0.05855 | 0.00137 | 0.58138 | 0.02233 | 0.07038 | 0.00199 | 550 | 56 | 465 | 14 | 438 | 12 | 6% |
| 16c | 769 | 925 | 0.83 | 0.06544 | 0.00201 | 1.28990 | 0.03994 | 0.14271 | 0.00158 | 787 | 64 | 841 | 18 | 860 | 9 | 2% |
| 17c | 97 | 2721 | 0.036 | 0.08659 | 0.00192 | 2.84689 | 0.12411 | 0.22414 | 0.00745 | 1352 | 43 | 1368 | 33 | 1304 | 39 | 5% |
| 18c | 314 | 278 | 1.13 | 0.06208 | 0.00311 | 1.13928 | 0.05472 | 0.13471 | 0.00166 | 676 | 112 | 772 | 26 | 815 | 9 | 5% |
| 19c | 276 | 3093 | 0.09 | 0.06309 | 0.00139 | 0.95310 | 0.02133 | 0.10883 | 0.00082 | 722 | 51 | 680 | 11 | 666 | 5 | 2% |
| 20c | 257 | 453 | 0.57 | 0.06470 | 0.00680 | 0.98122 | 0.10243 | 0.11234 | 0.00151 | 765 | 224 | 694 | 52 | 686 | 9 | 1% |
| 21c | 515 | 1585 | 0.33 | 0.07113 | 0.00202 | 1.64897 | 0.05426 | 0.16690 | 0.00299 | 961 | 58 | 989 | 21 | 995 | 17 | 1% |
| 22c | 387 | 1532 | 0.25 | 0.07165 | 0.00213 | 1.66236 | 0.05004 | 0.16708 | 0.00173 | 976 | 61 | 994 | 19 | 996 | 10 | 1% |
| 23c | 177 | 383 | 0.46 | 0.06903 | 0.00247 | 1.59945 | 0.05825 | 0.16750 | 0.00232 | 900 | 69 | 970 | 23 | 998 | 13 | 3% |
| 24c | 2732 | 5294 | 0.52 | 0.06560 | 0.00153 | 1.18793 | 0.02798 | 0.13033 | 0.00108 | 794 | 50 | 795 | 13 | 790 | 6 | 1% |
| 25r | 111 | 1060 | 0.10 | 0.05688 | 0.00190 | 0.55963 | 0.02654 | 0.06934 | 0.00217 | 487 | 77 | 451 | 17 | 432 | 13 | 4% |
| 26c | 550 | 2924 | 0.19 | 0.08108 | 0.00190 | 2.18590 | 0.05345 | 0.19369 | 0.00210 | 1233 | 50 | 1177 | 17 | 1141 | 11 | 3% |
| 27c | 114 | 4079 | 0.028 | 0.06914 | 0.00178 | 1.48968 | 0.03623 | 0.15508 | 0.00095 | 902 | 53 | 926 | 15 | 929 | 5 | 1% |
| 28r | 60 | 849 | 0.070 | 0.06153 | 0.00260 | 0.60944 | 0.03304 | 0.07068 | 0.00243 | 657 | 91 | 483 | 21 | 440 | 15 | 10% |
| 29c | 87 | 307 | 0.28 | 0.07307 | 0.00324 | 1.56443 | 0.06805 | 0.15694 | 0.00223 | 1017 | 90 | 956 | 27 | 940 | 12 | 2% |
| 30r | 203 | 1222 | 0.17 | 0.05800 | 0.00186 | 0.56035 | 0.02083 | 0.06946 | 0.00132 | 532 | 70 | 452 | 14 | 433 | 8 | 4% |
| 31c | 1155 | 3782 | 0.31 | 0.06236 | 0.00141 | 0.88113 | 0.01966 | 0.10181 | 0.00076 | 687 | 53 | 642 | 11 | 625 | 4 | 3% |
| 32c | 471 | 1542 | 0.31 | 0.09485 | 0.00223 | 2.85029 | 0.09336 | 0.21304 | 0.00439 | 1525 | 44 | 1369 | 25 | 1245 | 23 | 10% |
| 33c | 655 | 604 | 1.09 | 0.1621 | 0.0031 | 10.0321 | 0.2206 | 0.4444 | 0.0056 | 2480 | 32 | 2438 | 20 | 2370 | 25 | 3% |
| 34c | 653 | 1458 | 0.45 | 0.0769 | 0.0025 | 1.7512 | 0.0694 | 0.1655 | 0.0042 | 1120 | 65 | 1028 | 26 | 987 | 23 | 4% |
| 35c | 184 | 1435 | 0.13 | 0.0820 | 0.0021 | 1.9298 | 0.0595 | 0.1675 | 0.0024 | 1256 | 50 | 1091 | 21 | 998 | 14 | 9% |
| SPMG Diatexite | | | | | | | | | | | | | | | | |
| 1r | 293 | 998 | 0.29 | 0.05157 | 0.00194 | 0.50084 | 0.01846 | 0.07044 | 0.00070 | 265 | 87 | 412 | 12 | 439 | 4 | 6% |
| 2r | 441 | 1910 | 0.23 | 0.05228 | 0.00191 | 0.50332 | 0.01830 | 0.07018 | 0.00088 | 298 | 88 | 414 | 12 | 437 | 5 | 5% |
| 3h | 178 | 1738 | 0.10 | 0.05452 | 0.00176 | 0.53226 | 0.01781 | 0.07016 | 0.00067 | 391 | 74 | 433 | 12 | 437 | 4 | 1% |
| 4h | 133 | 2883 | 0.046 | 0.05484 | 0.00153 | 0.53164 | 0.01490 | 0.06982 | 0.00065 | 406 | 68 | 433 | 10 | 435 | 4 | 1% |
| 5r | 165 | 913 | 0.18 | 0.05678 | 0.00318 | 0.55554 | 0.02923 | 0.07222 | 0.00104 | 483 | 129 | 449 | 19 | 450 | 6 | 1% |
| 6r | 154 | 1055 | 0.15 | 0.05642 | 0.00231 | 0.54302 | 0.02179 | 0.06979 | 0.00086 | 478 | 95 | 440 | 14 | 435 | 5 | 1% |
| 7r | 324 | 1044 | 0.31 | 0.05838 | 0.00223 | 0.55786 | 0.02042 | 0.06934 | 0.00072 | 543 | 88 | 450 | 13 | 432 | 4 | 4% |
| 8r | 94 | 2542 | 0.037 | 0.05440 | 0.00186 | 0.52271 | 0.01739 | 0.06939 | 0.00062 | 387 | 76 | 427 | 12 | 432 | 4 | 1% |
| 9r | 209 | 1235 | 0.17 | 0.05421 | 0.00180 | 0.52651 | 0.01728 | 0.07010 | 0.00069 | 389 | 76 | 429 | 11 | 437 | 4 | 2% |
| 10r | 221 | 1243 | 0.18 | 0.05566 | 0.00210 | 0.53989 | 0.02032 | 0.06977 | 0.00071 | 439 | 83 | 438 | 13 | 435 | 4 | 1% |
| 11r | 146 | 1854 | 0.079 | 0.05655 | 0.00205 | 0.54916 | 0.02007 | 0.06989 | 0.00081 | 476 | 81 | 444 | 13 | 435 | 5 | 2% |
| 12r | 235 | 1485 | 0.16 | 0.05507 | 0.00182 | 0.54672 | 0.01767 | 0.07131 | 0.00068 | 417 | 74 | 443 | 12 | 444 | 4 | 1% |
| 13r | 295 | 1015 | 0.29 | 0.05837 | 0.00245 | 0.56531 | 0.02249 | 0.06996 | 0.00075 | 543 | 91 | 455 | 15 | 436 | 5 | 4% |
| 14r | 159 | 1904 | 0.083 | 0.05656 | 0.00188 | 0.54745 | 0.01700 | 0.06953 | 0.00066 | 476 | 74 | 443 | 11 | 433 | 4 | 2% |

Table S1 (Continued)

| Spot | Th(ppm) | U(ppm) | Th/U | ²⁰⁷ Pb/ ²⁰⁶ Pb | | ²⁰⁷ Pb/ ²³⁵ U | | ²⁰⁶ Pb/ ²³⁸ U | | ²⁰⁷ Pb/ ²⁰⁶ Pb | | ²⁰⁷ Pb/ ²³⁵ U | | ²⁰⁶ Pb/ ²³⁸ U | | Disc. ^b |
|----------------|---------|--------|-------|--------------------------------------|---------|-------------------------------------|---------|-------------------------------------|---------|--------------------------------------|-----|-------------------------------------|----|-------------------------------------|----|--------------------|
| | | | | Ratios | 1σ | Ratios | 1σ | Ratios | 1σ | Ages(Ma) | 1σ | Ages(Ma) | 1σ | Ages(Ma) | 1σ | |
| 15r | 49 | 2141 | 0.023 | 0.04990 | 0.00188 | 0.26493 | 0.00964 | 0.03796 | 0.00041 | 191 | 87 | 239 | 8 | 240 | 3 | 1% |
| 16h | 128 | 2876 | 0.045 | 0.05475 | 0.00183 | 0.53374 | 0.01627 | 0.06968 | 0.00073 | 467 | 76 | 434 | 11 | 434 | 4 | 1% |
| 17r | 340 | 1369 | 0.25 | 0.05335 | 0.00236 | 0.50871 | 0.02112 | 0.06804 | 0.00087 | 343 | 100 | 418 | 14 | 424 | 5 | 1% |
| 18h | 183 | 1980 | 0.093 | 0.05998 | 0.00211 | 0.58412 | 0.01932 | 0.06957 | 0.00078 | 611 | 76 | 467 | 12 | 434 | 5 | 8% |
| 19r | 159 | 2835 | 0.056 | 0.05542 | 0.00173 | 0.54031 | 0.01569 | 0.06987 | 0.00077 | 428 | 66 | 439 | 10 | 435 | 5 | 1% |
| 20r | 129 | 4290 | 0.030 | 0.05410 | 0.00151 | 0.52638 | 0.01439 | 0.06987 | 0.00093 | 376 | 63 | 429 | 10 | 435 | 6 | 1% |
| 21r | 169 | 3356 | 0.050 | 0.05434 | 0.00147 | 0.52653 | 0.01367 | 0.06954 | 0.00066 | 383 | 66 | 430 | 9 | 433 | 4 | 1% |
| 22h | 170 | 3057 | 0.055 | 0.05770 | 0.00165 | 0.55466 | 0.01536 | 0.06934 | 0.00074 | 517 | 68 | 448 | 10 | 432 | 4 | 4% |
| 23h | 121 | 2985 | 0.041 | 0.05559 | 0.00155 | 0.54057 | 0.01539 | 0.07008 | 0.00076 | 435 | 63 | 439 | 10 | 437 | 5 | 1% |
| 24r | 194 | 4235 | 0.046 | 0.05615 | 0.00142 | 0.54779 | 0.01435 | 0.07032 | 0.00070 | 457 | 28 | 444 | 9 | 438 | 4 | 1% |
| 25r | 225 | 809 | 0.28 | 0.05625 | 0.00218 | 0.54506 | 0.02135 | 0.06996 | 0.00076 | 461 | 87 | 442 | 14 | 436 | 5 | 1% |
| 26r | 114 | 2920 | 0.039 | 0.05848 | 0.00163 | 0.56270 | 0.01610 | 0.06955 | 0.00077 | 546 | 61 | 453 | 10 | 433 | 5 | 5% |
| 27h | 466 | 1363 | 0.34 | 0.06104 | 0.00238 | 0.58581 | 0.02258 | 0.07004 | 0.00099 | 640 | 85 | 468 | 14 | 436 | 6 | 7% |
| 28h | 320 | 2054 | 0.16 | 0.06237 | 0.00220 | 0.61285 | 0.02134 | 0.07122 | 0.00082 | 687 | 76 | 485 | 13 | 443 | 5 | 9% |
| 29c | 369 | 1511 | 0.24 | 0.06721 | 0.00221 | 0.91522 | 0.03316 | 0.09707 | 0.00138 | 844 | 73 | 660 | 18 | 597 | 8 | 10% |
| 30r | 202 | 578 | 0.35 | 0.06204 | 0.00336 | 0.59326 | 0.02819 | 0.07059 | 0.00086 | 676 | 117 | 473 | 18 | 440 | 5 | 8% |
| 31r | 134 | 2799 | 0.048 | 0.06142 | 0.00226 | 0.60786 | 0.02126 | 0.07146 | 0.00058 | 654 | 80 | 482 | 13 | 445 | 3 | 8% |
| 32r | 183 | 1687 | 0.11 | 0.05952 | 0.00223 | 0.58688 | 0.02107 | 0.07086 | 0.00055 | 587 | 81 | 469 | 13 | 441 | 3 | 6% |
| 33r | 172 | 1289 | 0.13 | 0.06128 | 0.00236 | 0.61873 | 0.02176 | 0.07291 | 0.00080 | 650 | 83 | 489 | 14 | 454 | 5 | 8% |
| 34r | 1318 | 3657 | 0.36 | 0.05426 | 0.00142 | 0.52711 | 0.01356 | 0.06953 | 0.00072 | 389 | 59 | 430 | 9 | 433 | 4 | 1% |
| 35h | 147 | 2716 | 0.054 | 0.06069 | 0.00220 | 0.60469 | 0.01963 | 0.07192 | 0.00063 | 628 | 80 | 480 | 12 | 448 | 4 | 7% |
| 36c | 214 | 850 | 0.25 | 0.06131 | 0.00226 | 0.79994 | 0.03376 | 0.09303 | 0.00148 | 650 | 80 | 597 | 19 | 573 | 9 | 4% |
| 37c | 287 | 2873 | 0.10 | 0.06471 | 0.00135 | 0.93979 | 0.01924 | 0.10417 | 0.00069 | 765 | 44 | 673 | 10 | 639 | 4 | 5% |
| 38r | 163 | 968 | 0.17 | 0.06129 | 0.00334 | 0.61764 | 0.03572 | 0.07224 | 0.00062 | 650 | 117 | 488 | 22 | 450 | 4 | 9% |
| FHMG Diatexite | | | | | | | | | | | | | | | | |
| 1r | 348 | 2537 | 0.14 | 0.05769 | 0.00172 | 0.55956 | 0.01780 | 0.07033 | 0.00104 | 517 | 67 | 451 | 12 | 438 | 6 | 3% |
| 2r | 275 | 934 | 0.29 | 0.05739 | 0.00208 | 0.55580 | 0.02003 | 0.07008 | 0.00070 | 506 | 75 | 449 | 13 | 437 | 4 | 3% |
| 3r | 4015 | 2095 | 1.92 | 0.05268 | 0.00210 | 0.26937 | 0.01055 | 0.03715 | 0.00041 | 322 | 123 | 242 | 8 | 235 | 3 | 3% |
| 4h | 157 | 431 | 0.37 | 0.05144 | 0.00278 | 0.50167 | 0.02686 | 0.07109 | 0.00092 | 261 | 129 | 413 | 18 | 443 | 6 | 7% |
| 5r | 154 | 558 | 0.28 | 0.05612 | 0.00230 | 0.54078 | 0.02090 | 0.07049 | 0.00077 | 457 | 91 | 439 | 14 | 439 | 5 | 1% |
| 6h | 891 | 1125 | 0.79 | 0.05697 | 0.00257 | 0.29279 | 0.01284 | 0.03728 | 0.00041 | 500 | 100 | 261 | 10 | 236 | 3 | 11% |
| 7r | 67 | 136 | 0.49 | 0.05848 | 0.00930 | 0.27433 | 0.04471 | 0.03829 | 0.00106 | 546 | 347 | 246 | 36 | 242 | 7 | 2% |
| 8c | 603 | 1189 | 0.51 | 0.07769 | 0.00191 | 1.84537 | 0.06802 | 0.16735 | 0.00418 | 1139 | 44 | 1062 | 24 | 997 | 23 | 6% |
| 9r | 230 | 2161 | 0.11 | 0.05195 | 0.00170 | 0.27206 | 0.00870 | 0.03786 | 0.00032 | 283 | 81 | 244 | 7 | 240 | 2 | 2% |
| 10r | 392 | 792 | 0.50 | 0.05550 | 0.00242 | 0.53982 | 0.02157 | 0.07149 | 0.00083 | 432 | 98 | 438 | 14 | 445 | 5 | 2% |
| 11r | 732 | 2487 | 0.29 | 0.05534 | 0.00188 | 0.53394 | 0.01643 | 0.06953 | 0.00057 | 433 | 78 | 434 | 11 | 433 | 3 | 1% |
| 12h | 214 | 1204 | 0.18 | 0.05571 | 0.00185 | 0.55015 | 0.02020 | 0.07142 | 0.00113 | 443 | 79 | 445 | 13 | 445 | 7 | 1% |
| 13r | 675 | 1990 | 0.34 | 0.05737 | 0.00156 | 0.56368 | 0.01526 | 0.07108 | 0.00074 | 506 | 55 | 454 | 10 | 443 | 4 | 3% |
| 14c | 158 | 298 | 0.53 | 0.09372 | 0.00895 | 1.95183 | 0.09140 | 0.16760 | 0.00246 | 1503 | 181 | 1099 | 31 | 999 | 14 | 10% |
| 15r | 982 | 2691 | 0.37 | 0.06079 | 0.00212 | 0.60377 | 0.01970 | 0.07191 | 0.00059 | 632 | 76 | 480 | 12 | 448 | 4 | 7% |
| 16h | 244 | 446 | 0.55 | 0.05476 | 0.00292 | 0.51741 | 0.02691 | 0.06910 | 0.00083 | 467 | 119 | 423 | 18 | 431 | 5 | 2% |
| 17c | 506 | 812 | 0.62 | 0.08964 | 0.00225 | 2.49853 | 0.08603 | 0.19784 | 0.00445 | 1418 | 48 | 1272 | 25 | 1164 | 24 | 9% |
| 18c | 458 | 1240 | 0.37 | 0.07223 | 0.00203 | 1.28307 | 0.04827 | 0.12640 | 0.00306 | 992 | 25 | 838 | 21 | 767 | 17 | 9% |
| 19h | 614 | 1187 | 0.52 | 0.05628 | 0.00294 | 0.29599 | 0.01472 | 0.03834 | 0.00041 | 465 | 117 | 263 | 12 | 243 | 3 | 9% |
| 20r | 248 | 606 | 0.41 | 0.05290 | 0.00230 | 0.51384 | 0.02300 | 0.07033 | 0.00108 | 324 | 94 | 421 | 15 | 438 | 7 | 4% |
| 21r | 404 | 583 | 0.69 | 0.06126 | 0.00264 | 0.58965 | 0.02366 | 0.07043 | 0.00084 | 650 | 93 | 471 | 15 | 439 | 5 | 7% |
| 22r | 2603 | 2075 | 1.25 | 0.05072 | 0.00169 | 0.26659 | 0.00870 | 0.03804 | 0.00042 | 228 | 76 | 240 | 7 | 241 | 3 | 1% |

Table S1 (Continued)

| Spot | Th(ppm) | U(ppm) | Th/U | ²⁰⁷ Pb/ ²⁰⁶ Pb | | ²⁰⁷ Pb/ ²³⁵ U | | ²⁰⁶ Pb/ ²³⁸ U | | ²⁰⁷ Pb/ ²⁰⁶ Pb | | ²⁰⁷ Pb/ ²³⁵ U | | ²⁰⁶ Pb/ ²³⁸ U | | Disc. ^b |
|--------------------------|---------|--------|------|--------------------------------------|---------|-------------------------------------|---------|-------------------------------------|---------|--------------------------------------|-----|-------------------------------------|----|-------------------------------------|----|--------------------|
| | | | | Ratios | 1σ | Ratios | 1σ | Ratios | 1σ | Ages(Ma) | 1σ | Ages(Ma) | 1σ | Ages(Ma) | 1σ | |
| 23c | 291 | 460 | 0.63 | 0.06174 | 0.00295 | 1.04089 | 0.04893 | 0.11990 | 0.00157 | 665 | 99 | 724 | 24 | 730 | 9 | 1% |
| 24r | 1824 | 1520 | 1.20 | 0.05256 | 0.00175 | 0.50561 | 0.01661 | 0.06954 | 0.00081 | 309 | 76 | 415 | 11 | 433 | 5 | 4% |
| DG2 Biotite monzogranite | | | | | | | | | | | | | | | | |
| 1m | 424 | 1877 | 0.23 | 0.05158 | 0.00168 | 0.26859 | 0.00918 | 0.03742 | 0.00046 | 333 | 74 | 242 | 7 | 237 | 3 | 2% |
| 2m | 700 | 352 | 1.99 | 0.05342 | 0.00570 | 0.26604 | 0.02684 | 0.03705 | 0.00072 | 346 | 243 | 240 | 22 | 235 | 4 | 2% |
| 3c | 156 | 607 | 0.26 | 0.06128 | 0.00274 | 0.58550 | 0.02541 | 0.06946 | 0.00110 | 650 | 96 | 468 | 16 | 433 | 7 | 8% |
| 4m | 521 | 1271 | 0.41 | 0.05299 | 0.00314 | 0.27286 | 0.01777 | 0.03688 | 0.00060 | 328 | 135 | 245 | 14 | 233 | 4 | 5% |
| 5c | 486 | 753 | 0.64 | 0.05333 | 0.00273 | 0.54117 | 0.03980 | 0.07130 | 0.00333 | 343 | 110 | 439 | 26 | 444 | 20 | 1% |
| 6c | 145 | 1166 | 0.12 | 0.06612 | 0.00267 | 1.06071 | 0.06593 | 0.10947 | 0.00483 | 809 | 84 | 734 | 32 | 670 | 28 | 10% |
| 7m | 901 | 822 | 1.10 | 0.05428 | 0.00309 | 0.27569 | 0.01474 | 0.03716 | 0.00051 | 383 | 128 | 247 | 12 | 235 | 3 | 5% |
| 8m | 623 | 673 | 0.93 | 0.05056 | 0.00301 | 0.25509 | 0.01461 | 0.03689 | 0.00051 | 220 | 139 | 231 | 12 | 233 | 3 | 1% |
| 9m | 570 | 1377 | 0.41 | 0.05992 | 0.00194 | 0.60843 | 0.02324 | 0.07213 | 0.00154 | 611 | 103 | 483 | 15 | 449 | 9 | 7% |
| 10m | 666 | 1220 | 0.55 | 0.05193 | 0.00692 | 0.28974 | 0.03794 | 0.03870 | 0.00112 | 283 | 278 | 258 | 30 | 245 | 7 | 6% |
| 11c | 304 | 676 | 0.45 | 0.05308 | 0.00576 | 0.46670 | 0.03869 | 0.06677 | 0.00139 | 332 | 248 | 389 | 27 | 417 | 8 | 7% |
| 12m | 1381 | 917 | 1.51 | 0.05523 | 0.00277 | 0.28796 | 0.01470 | 0.03746 | 0.00051 | 420 | 111 | 257 | 12 | 237 | 3 | 8% |
| 13c | 169 | 389 | 0.43 | 0.05424 | 0.00304 | 0.52111 | 0.02788 | 0.07019 | 0.00092 | 389 | 126 | 426 | 19 | 437 | 6 | 3% |
| 14c | 286 | 548 | 0.52 | 0.05962 | 0.00309 | 0.58087 | 0.02817 | 0.07139 | 0.00092 | 591 | 113 | 465 | 18 | 445 | 6 | 5% |
| 15c | 310 | 1068 | 0.29 | 0.05499 | 0.00224 | 0.49319 | 0.02142 | 0.06621 | 0.00140 | 413 | 93 | 407 | 15 | 413 | 8 | 1% |
| 16c | 492 | 736 | 0.67 | 0.05473 | 0.00247 | 0.52790 | 0.02390 | 0.07004 | 0.00089 | 467 | 100 | 430 | 16 | 436 | 5 | 1% |
| 17c | 217 | 996 | 0.22 | 0.06166 | 0.00212 | 1.01357 | 0.04064 | 0.11788 | 0.00240 | 661 | 79 | 711 | 20 | 718 | 14 | 1% |
| 18c | 1309 | 1309 | 1.00 | 0.05622 | 0.00182 | 0.54519 | 0.01748 | 0.06982 | 0.00062 | 461 | 72 | 442 | 11 | 435 | 4 | 2% |
| 19m | 232 | 1763 | 0.13 | 0.04662 | 0.00175 | 0.23886 | 0.00874 | 0.03714 | 0.00038 | 32 | 85 | 217 | 7 | 235 | 2 | 7% |
| 20m | 1095 | 479 | 2.29 | 0.05494 | 0.00498 | 0.27593 | 0.02403 | 0.03704 | 0.00058 | 409 | 208 | 247 | 19 | 234 | 4 | 6% |
| 21m | 508 | 289 | 1.76 | 0.05733 | 0.00502 | 0.31540 | 0.02834 | 0.03990 | 0.00077 | 506 | 194 | 278 | 22 | 252 | 5 | 10% |
| 22m | 599 | 602 | 0.99 | 0.05073 | 0.00589 | 0.24428 | 0.02485 | 0.03748 | 0.00070 | 228 | 248 | 222 | 20 | 237 | 4 | 6% |
| 23m | 753 | 356 | 2.11 | 0.04985 | 0.00461 | 0.25643 | 0.02369 | 0.03710 | 0.00064 | 187 | 204 | 232 | 19 | 235 | 4 | 1% |
| 24m | 324 | 894 | 0.36 | 0.05243 | 0.00547 | 0.26506 | 0.02800 | 0.03737 | 0.00075 | 306 | 236 | 239 | 22 | 236 | 5 | 1% |
| 25m | 621 | 1393 | 0.45 | 0.05131 | 0.00195 | 0.26407 | 0.00995 | 0.03728 | 0.00041 | 254 | 87 | 238 | 8 | 236 | 3 | 1% |
| 26m | 969 | 796 | 1.22 | 0.05617 | 0.00398 | 0.28444 | 0.02269 | 0.03740 | 0.00076 | 457 | 157 | 254 | 18 | 237 | 5 | 7% |
| 27m | 1367 | 908 | 1.51 | 0.05444 | 0.00283 | 0.28206 | 0.01432 | 0.03738 | 0.00052 | 391 | 84 | 252 | 11 | 237 | 3 | 7% |
| 28c | 340 | 575 | 0.59 | 0.05888 | 0.00282 | 0.98159 | 0.04279 | 0.12174 | 0.00127 | 561 | 106 | 694 | 22 | 741 | 7 | 6% |
| 29m | 867 | 329 | 2.64 | 0.04889 | 0.00436 | 0.24745 | 0.02228 | 0.03731 | 0.00067 | 143 | 196 | 225 | 18 | 236 | 4 | 5% |
| DG3 Biotite monzogranite | | | | | | | | | | | | | | | | |
| 1m | 710 | 313 | 2.27 | 0.05564 | 0.00540 | 0.28619 | 0.02658 | 0.03779 | 0.00074 | 439 | 217 | 256 | 21 | 239 | 5 | 7% |
| 2m | 1288 | 608 | 2.12 | 0.05700 | 0.00474 | 0.29135 | 0.02279 | 0.03741 | 0.00053 | 500 | 183 | 260 | 18 | 237 | 3 | 10% |
| 3m | 934 | 536 | 1.74 | 0.05804 | 0.00508 | 0.31544 | 0.02602 | 0.04032 | 0.00064 | 532 | 197 | 278 | 20 | 255 | 4 | 9% |
| 4m | 1476 | 696 | 2.12 | 0.05659 | 0.00404 | 0.28502 | 0.01977 | 0.03702 | 0.00056 | 476 | 158 | 255 | 16 | 234 | 3 | 9% |
| 5m | 2455 | 1330 | 1.85 | 0.05417 | 0.00292 | 0.27999 | 0.01529 | 0.03755 | 0.00049 | 389 | 122 | 251 | 12 | 238 | 3 | 5% |
| 6m | 809 | 464 | 1.74 | 0.05593 | 0.00441 | 0.28075 | 0.02180 | 0.03717 | 0.00058 | 450 | 176 | 251 | 17 | 235 | 4 | 7% |
| 7c | 664 | 1087 | 0.61 | 0.05315 | 0.00236 | 0.51275 | 0.02206 | 0.07009 | 0.00067 | 345 | 100 | 420 | 15 | 437 | 4 | 4% |
| 8m | 873 | 311 | 2.81 | 0.05870 | 0.00662 | 0.29102 | 0.03377 | 0.03769 | 0.00090 | 567 | 242 | 259 | 27 | 238 | 6 | 9% |
| 9c | 165 | 531 | 0.31 | 0.05817 | 0.00290 | 0.56695 | 0.02676 | 0.07110 | 0.00098 | 600 | 105 | 456 | 17 | 443 | 6 | 3% |
| 10m | 663 | 1164 | 0.57 | 0.05041 | 0.00246 | 0.26562 | 0.01326 | 0.03805 | 0.00054 | 213 | 113 | 239 | 11 | 241 | 3 | 1% |
| 11m | 1112 | 742 | 1.50 | 0.05317 | 0.00308 | 0.27262 | 0.01465 | 0.03792 | 0.00052 | 345 | 131 | 245 | 12 | 240 | 3 | 2% |
| 12m | 852 | 313 | 2.72 | 0.05108 | 0.00514 | 0.25836 | 0.02648 | 0.03756 | 0.00070 | 243 | 218 | 233 | 21 | 238 | 4 | 2% |
| 13m | 1149 | 514 | 2.23 | 0.05739 | 0.00477 | 0.29990 | 0.02495 | 0.03854 | 0.00061 | 506 | 179 | 266 | 19 | 244 | 4 | 9% |
| 14m | 2454 | 1098 | 2.23 | 0.05595 | 0.00245 | 0.29405 | 0.01321 | 0.03790 | 0.00043 | 450 | 98 | 262 | 10 | 240 | 3 | 9% |

Table S1 (*Continued*)

| Spot | Th(ppm) | U(ppm) | Th/U | ²⁰⁷ Pb/ ²⁰⁶ Pb | | ²⁰⁷ Pb/ ²³⁵ U | | ²⁰⁶ Pb/ ²³⁸ U | | ²⁰⁷ Pb/ ²⁰⁶ Pb | | ²⁰⁷ Pb/ ²³⁵ U | | ²⁰⁶ Pb/ ²³⁸ U | | Disc. ^b |
|------------|-------------|-------------|-------------|--------------------------------------|----------------|-------------------------------------|----------------|-------------------------------------|----------------|--------------------------------------|------------|-------------------------------------|-----------|-------------------------------------|----------|--------------------|
| | | | | Ratios | 1σ | Ratios | 1σ | Ratios | 1σ | Ages(Ma) | 1σ | Ages(Ma) | 1σ | Ages(Ma) | 1σ | |
| 15m | 1500 | 698 | 2.15 | 0.05082 | 0.00297 | 0.26574 | 0.01572 | 0.03821 | 0.00058 | 232 | 131 | 239 | 13 | 242 | 4 | 1% |
| 16m | 887 | 503 | 1.76 | 0.05298 | 0.00394 | 0.27598 | 0.02016 | 0.03740 | 0.00057 | 328 | 168 | 247 | 16 | 237 | 4 | 5% |
| 17m | 1062 | 1105 | 0.96 | 0.05152 | 0.00300 | 0.28314 | 0.01733 | 0.03930 | 0.00058 | 265 | 133 | 253 | 14 | 248 | 4 | 2% |
| 18c | 1027 | 1209 | 0.85 | 0.07723 | 0.00265 | 1.81365 | 0.06140 | 0.16916 | 0.00165 | 1128 | 69 | 1050 | 22 | 1007 | 9 | 4% |
| <i>19m</i> | <i>1097</i> | <i>1158</i> | <i>0.95</i> | <i>0.05390</i> | <i>0.00317</i> | <i>0.29517</i> | <i>0.02059</i> | <i>0.03871</i> | <i>0.00055</i> | <i>369</i> | <i>133</i> | <i>263</i> | <i>16</i> | <i>245</i> | <i>3</i> | <i>7%</i> |

^a c, inherited cores; r, metamorphic rims; h, homogeneous zircons; m, magmatic zircons.

^b Disc., means discordant degree defined as $\{ (^{207}\text{Pb}/^{235}\text{U age})/(^{206}\text{Pb}/^{238}\text{U age}) - 1 \} \times 100$.

^c Italics represent analyses spots outside the discordance range