Table 4-4 Zircon LA-ICP-MS U-Pb analytical data of the early Paleozoic TTGs in the Yunkai domian

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| spot | Th | U | Th/U | Isotopic ratios | | | | | |  | Isotopic ages (Ma) | | | | | | Conc. |
| ppm | | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ |  | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ | % |
| GDX03-3(Hb-bearing tonalite) | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 01 | 480 | 767 | 0.63 | 0.0561 | 0.0016 | 0.5408 | 0.0150 | 0.0700 | 0.0010 |  | 455 | 37 | 439 | 10 | 436 | 6 | 100.7 |
| 02 | 650 | 1164 | 0.56 | 0.0559 | 0.0014 | 0.5538 | 0.0143 | 0.0719 | 0.0011 |  | 448 | 32 | 447 | 9 | 447 | 6 | 100.0 |
| 03 | 265 | 1074 | 0.25 | 0.0560 | 0.0014 | 0.5581 | 0.0139 | 0.0723 | 0.0010 |  | 453 | 31 | 450 | 9 | 450 | 6 | 100.0 |
| 04 | 250 | 1163 | 0.21 | 0.0556 | 0.0014 | 0.5361 | 0.0141 | 0.0699 | 0.0011 |  | 438 | 33 | 436 | 9 | 436 | 6 | 100.0 |
| 05.1 | 700 | 1260 | 0.56 | 0.0557 | 0.0015 | 0.5452 | 0.0147 | 0.0710 | 0.0011 |  | 442 | 34 | 442 | 10 | 442 | 6 | 100.0 |
| 05.2 | 232 | 1356 | 0.17 | 0.0526 | 0.0013 | 0.3567 | 0.0096 | 0.0492 | 0.0008 |  | 310 | 34 | 310 | 7 | 310 | 5 | 100.0 |
| 06 | 1053 | 1147 | 0.92 | 0.0559 | 0.0011 | 0.5516 | 0.0115 | 0.0716 | 0.0010 |  | 447 | 24 | 446 | 8 | 446 | 6 | 100.0 |
| 07 | 208 | 1129 | 0.18 | 0.0559 | 0.0016 | 0.5518 | 0.0159 | 0.0716 | 0.0011 |  | 448 | 37 | 446 | 10 | 446 | 7 | 100.0 |
| 08 | 886 | 1177 | 0.75 | 0.0557 | 0.0012 | 0.5438 | 0.0117 | 0.0708 | 0.0010 |  | 441 | 25 | 441 | 8 | 441 | 6 | 100.0 |
| 09 | 77 | 922 | 0.08 | 0.0555 | 0.0030 | 0.5290 | 0.0279 | 0.0691 | 0.0014 |  | 434 | 81 | 431 | 19 | 431 | 9 | 100.0 |
| 10 | 581 | 1041 | 0.56 | 0.0561 | 0.0015 | 0.5630 | 0.0147 | 0.0728 | 0.0010 |  | 455 | 33 | 453 | 10 | 453 | 6 | 100.0 |
| 11 | 272 | 1508 | 0.18 | 0.0559 | 0.0018 | 0.5562 | 0.0179 | 0.0722 | 0.0012 |  | 447 | 43 | 449 | 12 | 449 | 7 | 100.0 |
| 12 | 142 | 756 | 0.19 | 0.0551 | 0.0016 | 0.5040 | 0.0146 | 0.0664 | 0.0010 |  | 416 | 38 | 414 | 10 | 414 | 6 | 100.0 |
| 13 | 540 | 962 | 0.56 | 0.0559 | 0.0018 | 0.5536 | 0.0174 | 0.0719 | 0.0011 |  | 448 | 43 | 447 | 11 | 447 | 7 | 100.0 |
| 14 | 191 | 1347 | 0.14 | 0.0560 | 0.0015 | 0.5551 | 0.0154 | 0.0719 | 0.0011 |  | 452 | 36 | 448 | 10 | 448 | 6 | 100.0 |
| 15 | 720 | 1031 | 0.70 | 0.0557 | 0.0013 | 0.5443 | 0.0129 | 0.0708 | 0.0010 |  | 442 | 29 | 441 | 8 | 441 | 6 | 100.0 |
| 16 | 1003 | 1020 | 0.98 | 0.0558 | 0.0012 | 0.5477 | 0.0118 | 0.0712 | 0.0010 |  | 444 | 25 | 443 | 8 | 443 | 6 | 100.0 |
| 17 | 730 | 1031 | 0.71 | 0.0558 | 0.0014 | 0.5430 | 0.0140 | 0.0706 | 0.0010 |  | 443 | 33 | 440 | 9 | 440 | 6 | 100.0 |
| 18 | 1985 | 1297 | 1.53 | 0.0559 | 0.0011 | 0.5554 | 0.0115 | 0.0720 | 0.0010 |  | 450 | 23 | 449 | 8 | 448 | 6 | 100.2 |
| 19 | 1028 | 1044 | 0.98 | 0.0559 | 0.0012 | 0.5553 | 0.0125 | 0.0720 | 0.0010 |  | 449 | 26 | 448 | 8 | 448 | 6 | 100.0 |
| 20 | 288 | 888 | 0.32 | 0.0558 | 0.0015 | 0.5483 | 0.0147 | 0.0713 | 0.0010 |  | 444 | 35 | 444 | 10 | 444 | 6 | 100.0 |
| 21 | 634 | 1288 | 0.49 | 0.0559 | 0.0014 | 0.5504 | 0.0139 | 0.0714 | 0.0011 |  | 449 | 31 | 445 | 9 | 445 | 6 | 100.0 |
| 22 | 100 | 1101 | 0.09 | 0.0560 | 0.0022 | 0.5651 | 0.0224 | 0.0732 | 0.0013 |  | 453 | 56 | 455 | 15 | 455 | 8 | 100.0 |
| 23 | 962 | 965 | 1.00 | 0.0557 | 0.0019 | 0.5479 | 0.0190 | 0.0713 | 0.0011 |  | 442 | 49 | 444 | 12 | 444 | 7 | 100.0 |
| 24 | 2074 | 1825 | 1.14 | 0.0561 | 0.0041 | 0.5628 | 0.0406 | 0.0730 | 0.0019 |  | 457 | 115 | 453 | 26 | 454 | 11 | 99.8 |
| 25 | 428 | 412 | 1.04 | 0.0558 | 0.0014 | 0.5450 | 0.0138 | 0.0709 | 0.0010 |  | 442 | 31 | 442 | 9 | 442 | 6 | 100.0 |
| 26 | 976 | 1092 | 0.89 | 0.0559 | 0.0016 | 0.5554 | 0.0158 | 0.0720 | 0.0011 |  | 449 | 37 | 448 | 10 | 448 | 6 | 100.0 |
| 27 | 496 | 896 | 0.55 | 0.0560 | 0.0019 | 0.5565 | 0.0184 | 0.0722 | 0.0012 |  | 450 | 45 | 449 | 12 | 449 | 7 | 100.0 |
| 28.1 | 671 | 904 | 0.74 | 0.0548 | 0.0012 | 0.4903 | 0.0114 | 0.0648 | 0.0009 |  | 405 | 29 | 405 | 8 | 405 | 5 | 100.0 |
| 28.2 | 204 | 1143 | 0.18 | 0.0511 | 0.0018 | 0.2755 | 0.0095 | 0.0391 | 0.0006 |  | 246 | 52 | 247 | 8 | 247 | 4 | 100.0 |
| 29.1 | 76 | 448 | 0.17 | 0.0557 | 0.0013 | 0.5411 | 0.0127 | 0.0705 | 0.0010 |  | 440 | 29 | 439 | 8 | 439 | 6 | 100.0 |
| 29.2 | 260 | 3742 | 0.07 | 0.0508 | 0.0007 | 0.2591 | 0.0041 | 0.0369 | 0.0005 |  | 233 | 17 | 234 | 3 | 234 | 3 | 100.0 |
| 30 | 307 | 3483 | 0.09 | 0.0511 | 0.0010 | 0.2687 | 0.0056 | 0.0382 | 0.0005 |  | 244 | 25 | 242 | 4 | 241 | 3 | 100.4 |
| 31 | 183 | 3548 | 0.05 | 0.0511 | 0.0008 | 0.2724 | 0.0046 | 0.0386 | 0.0005 |  | 244 | 18 | 245 | 4 | 244 | 3 | 100.4 |
| 32 | 203 | 2761 | 0.07 | 0.0509 | 0.0009 | 0.2616 | 0.0048 | 0.0373 | 0.0005 |  | 235 | 21 | 236 | 4 | 236 | 3 | 100.0 |
| 33 | 465 | 4541 | 0.10 | 0.0510 | 0.0008 | 0.2691 | 0.0046 | 0.0382 | 0.0005 |  | 243 | 19 | 242 | 4 | 242 | 3 | 100.0 |
| 34.1 | 837 | 1112 | 0.75 | 0.0560 | 0.0022 | 0.5528 | 0.0215 | 0.0717 | 0.0013 |  | 451 | 55 | 447 | 14 | 446 | 8 | 100.2 |
| 34.2 | 279 | 3287 | 0.08 | 0.0512 | 0.0009 | 0.2781 | 0.0055 | 0.0394 | 0.0005 |  | 250 | 22 | 249 | 4 | 249 | 3 | 100.0 |
| 35.1 | 435 | 714 | 0.61 | 0.0562 | 0.0046 | 0.5499 | 0.0443 | 0.0710 | 0.0020 |  | 461 | 130 | 445 | 29 | 442 | 12 | 100.7 |
| 35.2 | 144 | 2377 | 0.06 | 0.0508 | 0.0013 | 0.2564 | 0.0067 | 0.0366 | 0.0005 |  | 233 | 35 | 232 | 5 | 232 | 3 | 100.0 |
| 36 | 110 | 1888 | 0.06 | 0.0511 | 0.0012 | 0.2773 | 0.0068 | 0.0393 | 0.0006 |  | 247 | 31 | 248 | 5 | 249 | 3 | 99.6 |
| 1# | 147 | 2848 | 0.05 | 0.0523 | 0.0012 | 0.2816 | 0.0063 | 0.0389 | 0.0003 |  | 298 | 36 | 252 | 5 | 246 | 2 | 102.4 |
| 2# | 113 | 2878 | 0.04 | 0.0529 | 0.0012 | 0.2846 | 0.0059 | 0.0390 | 0.0003 |  | 324 | 52 | 254 | 5 | 247 | 2 | 102.8 |
| 3# | 82.5 | 2244 | 0.04 | 0.0519 | 0.0011 | 0.2769 | 0.0059 | 0.0386 | 0.0003 |  | 280 | 35 | 248 | 5 | 244 | 2 | 101.6 |
| 4# | 180 | 4317 | 0.04 | 0.0527 | 0.0012 | 0.2818 | 0.0061 | 0.0386 | 0.0003 |  | 314 | 34 | 252 | 5 | 244 | 2 | 103.3 |
| 5# | 59.2 | 1245 | 0.05 | 0.0525 | 0.0014 | 0.2856 | 0.0072 | 0.0394 | 0.0003 |  | 305 | 42 | 255 | 6 | 249 | 2 | 102.4 |
| 6# | 399 | 5003 | 0.08 | 0.0544 | 0.0012 | 0.2945 | 0.0062 | 0.0393 | 0.0003 |  | 386 | 52 | 262 | 5 | 248 | 2 | 105.6 |
| 7# | 93.2 | 1975 | 0.05 | 0.0512 | 0.0013 | 0.2706 | 0.0067 | 0.0382 | 0.0003 |  | 248 | 43 | 243 | 5 | 242 | 2 | 100.4 |

Table 4-4(Continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| spot | Th | U | Th/U | Isotopic ratios | | | | | |  | Isotopic ages (Ma) | | | | | | Conc. |
| ppm | | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ |  | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ | % |
| GD18-2(Hb-bearing tonalite) | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 01 | 215 | 377 | 0.57 | 0.0556 | 0.0016 | 0.5355 | 0.0158 | 0.0699 | 0.0011 |  | 434 | 38 | 435 | 10 | 436 | 7 | 99.8 |
| 02 | 148 | 317 | 0.47 | 0.0557 | 0.0015 | 0.5421 | 0.0148 | 0.0706 | 0.0010 |  | 440 | 35 | 440 | 10 | 440 | 6 | 100.0 |
| 03 | 139 | 191 | 0.73 | 0.0558 | 0.0048 | 0.5373 | 0.0450 | 0.0699 | 0.0020 |  | 444 | 136 | 437 | 30 | 435 | 12 | 100.5 |
| 04 | 104 | 337 | 0.31 | 0.0575 | 0.0015 | 0.6539 | 0.0175 | 0.0825 | 0.0012 |  | 511 | 34 | 511 | 11 | 511 | 7 | 100.0 |
| 05 | 700 | 693 | 1.01 | 0.0558 | 0.0012 | 0.5476 | 0.0121 | 0.0712 | 0.0010 |  | 444 | 26 | 443 | 8 | 443 | 6 | 100.0 |
| 06 | 86 | 117 | 0.74 | 0.0558 | 0.0022 | 0.5453 | 0.0214 | 0.0709 | 0.0012 |  | 444 | 57 | 442 | 14 | 442 | 7 | 100.0 |
| 07 | 146 | 316 | 0.46 | 0.0558 | 0.0024 | 0.5392 | 0.0227 | 0.0701 | 0.0013 |  | 444 | 62 | 438 | 15 | 437 | 8 | 100.2 |
| 08 | 154 | 224 | 0.69 | 0.0564 | 0.0026 | 0.5855 | 0.0263 | 0.0753 | 0.0014 |  | 469 | 66 | 468 | 17 | 468 | 8 | 100.0 |
| 09 | 85 | 203 | 0.42 | 0.0562 | 0.0020 | 0.5680 | 0.0203 | 0.0734 | 0.0012 |  | 459 | 50 | 457 | 13 | 456 | 7 | 100.2 |
| 10 | 236 | 280 | 0.84 | 0.0561 | 0.0036 | 0.5577 | 0.0351 | 0.0722 | 0.0016 |  | 455 | 100 | 450 | 23 | 450 | 10 | 100.0 |
| 11.1 | 64 | 109 | 0.59 | 0.0726 | 0.0020 | 1.6882 | 0.0469 | 0.1686 | 0.0026 |  | 1004 | 32 | 1004 | 18 | 1005 | 14 | 99.9 |
| 11.2 | 120 | 176 | 0.68 | 0.0566 | 0.0028 | 0.5976 | 0.0293 | 0.0766 | 0.0014 |  | 477 | 75 | 476 | 19 | 476 | 9 | 100.0 |
| 12.1 | 390 | 427 | 0.91 | 0.1596 | 0.0041 | 10.172 | 0.2707 | 0.4625 | 0.0072 |  | 2451 | 25 | 2451 | 25 | 2451 | 32 | 100.0 |
| 12.2 | 39.3 | 150 | 0.26 | 0.0559 | 0.0047 | 0.5612 | 0.0459 | 0.0728 | 0.0020 |  | 447 | 133 | 452 | 30 | 453 | 12 | 99.8 |
| 13 | 57.8 | 113 | 0.51 | 0.0568 | 0.0020 | 0.6093 | 0.0213 | 0.0779 | 0.0013 |  | 483 | 48 | 483 | 13 | 483 | 8 | 100.0 |
| 14 | 47.1 | 152 | 0.31 | 0.0558 | 0.0022 | 0.5438 | 0.0216 | 0.0707 | 0.0012 |  | 444 | 58 | 441 | 14 | 440 | 7 | 100.2 |
| 15 | 222 | 463 | 0.48 | 0.0557 | 0.0015 | 0.5442 | 0.0146 | 0.0708 | 0.0011 |  | 442 | 34 | 441 | 10 | 441 | 6 | 100.0 |
| 16.1 | 72 | 138 | 0.52 | 0.0942 | 0.0021 | 2.0694 | 0.0474 | 0.1593 | 0.0024 |  | 1513 | 22 | 1139 | 16 | 953 | 13 | 119.5 |
| 16.2 | 172 | 326 | 0.53 | 0.0556 | 0.0014 | 0.5369 | 0.0141 | 0.0700 | 0.0011 |  | 438 | 33 | 436 | 9 | 436 | 6 | 100.0 |
| 17 | 263 | 378 | 0.70 | 0.0559 | 0.0017 | 0.5517 | 0.0163 | 0.0716 | 0.0011 |  | 447 | 40 | 446 | 11 | 446 | 6 | 100.0 |
| 18 | 80 | 162 | 0.49 | 0.0558 | 0.0029 | 0.5428 | 0.0276 | 0.0706 | 0.0014 |  | 444 | 79 | 440 | 18 | 440 | 8 | 100.0 |
| 19 | 246 | 525 | 0.47 | 0.0560 | 0.0013 | 0.5607 | 0.0131 | 0.0726 | 0.0011 |  | 452 | 27 | 452 | 9 | 452 | 6 | 100.0 |
| 20 | 252 | 261 | 0.97 | 0.0557 | 0.0019 | 0.5390 | 0.0179 | 0.0703 | 0.0011 |  | 438 | 46 | 438 | 12 | 438 | 7 | 100.0 |
| 21.1 | 114 | 159 | 0.72 | 0.0702 | 0.0026 | 1.5102 | 0.0559 | 0.1561 | 0.0028 |  | 933 | 47 | 935 | 23 | 935 | 15 | 100.0 |
| 21.2 | 178 | 457 | 0.39 | 0.0559 | 0.0027 | 0.5572 | 0.0269 | 0.0723 | 0.0015 |  | 450 | 71 | 450 | 18 | 450 | 9 | 100.0 |
| 22 | 363 | 498 | 0.73 | 0.0564 | 0.0014 | 0.5822 | 0.0149 | 0.0749 | 0.0011 |  | 468 | 32 | 466 | 10 | 465 | 7 | 100.2 |
| 23 | 212 | 313 | 0.68 | 0.0559 | 0.0015 | 0.5525 | 0.0152 | 0.0717 | 0.0011 |  | 448 | 35 | 447 | 10 | 446 | 6 | 100.2 |
| 24 | 142 | 330 | 0.43 | 0.0564 | 0.0014 | 0.5804 | 0.0153 | 0.0747 | 0.0011 |  | 466 | 32 | 465 | 10 | 464 | 7 | 100.2 |
| 25 | 87 | 135 | 0.65 | 0.0582 | 0.0021 | 0.6943 | 0.0245 | 0.0866 | 0.0014 |  | 536 | 48 | 535 | 15 | 535 | 9 | 100.0 |
| 26 | 190 | 223 | 0.86 | 0.1381 | 0.0117 | 7.8280 | 0.6490 | 0.4108 | 0.0139 |  | 2203 | 97 | 2211 | 75 | 2218 | 63 | 99.7 |
| 27 | 224 | 302 | 0.74 | 0.0579 | 0.0039 | 0.6729 | 0.0443 | 0.0842 | 0.0020 |  | 527 | 103 | 522 | 27 | 521 | 12 | 100.2 |
| 28 | 166 | 269 | 0.62 | 0.0561 | 0.0016 | 0.5668 | 0.0159 | 0.0732 | 0.0011 |  | 458 | 36 | 456 | 10 | 455 | 7 | 100.2 |
| 29.1 | 125 | 97 | 1.28 | 0.0870 | 0.0020 | 2.8137 | 0.0672 | 0.2346 | 0.0035 |  | 1359 | 24 | 1359 | 18 | 1359 | 18 | 100.0 |
| 29.2 | 319 | 539 | 0.59 | 0.0559 | 0.0030 | 0.5565 | 0.0296 | 0.0722 | 0.0015 |  | 449 | 81 | 449 | 19 | 449 | 9 | 100.0 |
| 30 | 71 | 115 | 0.62 | 0.0563 | 0.0024 | 0.5690 | 0.0242 | 0.0733 | 0.0014 |  | 463 | 62 | 457 | 16 | 456 | 8 | 100.2 |
| 31 | 364 | 630 | 0.58 | 0.0560 | 0.0009 | 0.5648 | 0.0103 | 0.0731 | 0.0010 |  | 454 | 19 | 455 | 7 | 455 | 6 | 100.0 |
| 32 | 454 | 666 | 0.68 | 0.0561 | 0.0009 | 0.5681 | 0.0104 | 0.0734 | 0.0010 |  | 458 | 19 | 457 | 7 | 456 | 6 | 100.2 |
| 33.1 | 254 | 230 | 1.11 | 0.1106 | 0.0028 | 4.9385 | 0.1248 | 0.3238 | 0.0047 |  | 1810 | 26 | 1809 | 21 | 1808 | 23 | 100.1 |
| 33.2 | 251 | 454 | 0.55 | 0.0561 | 0.0012 | 0.5604 | 0.0124 | 0.0725 | 0.0010 |  | 454 | 26 | 452 | 8 | 451 | 6 | 100.2 |
| 34.1 | 158 | 810 | 0.20 | 0.0705 | 0.0019 | 1.5319 | 0.0416 | 0.1577 | 0.0025 |  | 943 | 31 | 943 | 17 | 944 | 14 | 99.9 |
| 34.2 | 183 | 373 | 0.49 | 0.0560 | 0.0015 | 0.5631 | 0.0148 | 0.0729 | 0.0010 |  | 453 | 34 | 454 | 10 | 454 | 6 | 100.0 |
| 35 | 268 | 759 | 0.35 | 0.1130 | 0.0021 | 5.1624 | 0.1020 | 0.3315 | 0.0046 |  | 1848 | 17 | 1846 | 17 | 1846 | 22 | 100.0 |
| 36 | 203 | 417 | 0.49 | 0.0556 | 0.0018 | 0.5371 | 0.0172 | 0.0701 | 0.0011 |  | 435 | 44 | 436 | 11 | 437 | 6 | 99.8 |
| 37 | 97 | 141 | 0.69 | 0.0769 | 0.0019 | 2.0085 | 0.0515 | 0.1893 | 0.0030 |  | 1119 | 28 | 1118 | 17 | 1118 | 16 | 100.0 |

Table 4-4(Continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| spot | Th | U | Th/U | Isotopic ratios | | | | | |  | Isotopic ages (Ma) | | | | | | Conc. |
| ppm | | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ |  | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ | % |
| GDX10-1(biotite tonalite) | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 01 | 59 | 101 | 0.58 | 0.0559 | 0.0024 | 0.5510 | 0.0236 | 0.0715 | 0.0013 |  | 449 | 64 | 446 | 15 | 445 | 8 | 100.2 |
| 02 | 128 | 150 | 0.85 | 0.0560 | 0.0037 | 0.5516 | 0.0358 | 0.0714 | 0.0016 |  | 454 | 103 | 446 | 23 | 445 | 10 | 100.2 |
| 03 | 92 | 137 | 0.67 | 0.0561 | 0.0026 | 0.5561 | 0.0250 | 0.0720 | 0.0013 |  | 455 | 67 | 449 | 16 | 448 | 8 | 100.2 |
| 04 | 190 | 224 | 0.85 | 0.0561 | 0.0021 | 0.5560 | 0.0209 | 0.0720 | 0.0012 |  | 454 | 54 | 449 | 14 | 448 | 7 | 100.2 |
| 05 | 60 | 94 | 0.64 | 0.0608 | 0.0031 | 0.8672 | 0.0425 | 0.1035 | 0.0021 |  | 632 | 71 | 634 | 23 | 635 | 12 | 99.8 |
| 06 | 148 | 229 | 0.65 | 0.0558 | 0.0020 | 0.5406 | 0.0195 | 0.0703 | 0.0012 |  | 443 | 51 | 439 | 13 | 438 | 7 | 100.2 |
| 07 | 118 | 216 | 0.55 | 0.0558 | 0.0016 | 0.5498 | 0.0163 | 0.0714 | 0.0011 |  | 445 | 39 | 445 | 11 | 445 | 7 | 100.0 |
| 08 | 308 | 350 | 0.88 | 0.0663 | 0.0013 | 1.2316 | 0.0255 | 0.1348 | 0.0019 |  | 814 | 22 | 815 | 12 | 815 | 11 | 100.0 |
| 09 | 79 | 125 | 0.63 | 0.0557 | 0.0024 | 0.5462 | 0.0227 | 0.0711 | 0.0012 |  | 442 | 61 | 443 | 15 | 443 | 7 | 100.0 |
| 10 | 118 | 206 | 0.57 | 0.0559 | 0.0023 | 0.5530 | 0.0222 | 0.0717 | 0.0012 |  | 450 | 58 | 447 | 15 | 446 | 7 | 100.2 |
| 11 | 306 | 927 | 0.33 | 0.1488 | 0.0079 | 8.9453 | 0.4677 | 0.4360 | 0.0095 |  | 2333 | 60 | 2332 | 48 | 2333 | 43 | 100.0 |
| 12 | 79 | 113 | 0.70 | 0.0559 | 0.0038 | 0.5522 | 0.0367 | 0.0716 | 0.0017 |  | 449 | 106 | 446 | 24 | 446 | 10 | 100.0 |
| 13 | 306 | 331 | 0.92 | 0.0560 | 0.0016 | 0.5577 | 0.0162 | 0.0722 | 0.0011 |  | 452 | 38 | 450 | 11 | 450 | 7 | 100.0 |
| 14 | 46 | 199 | 0.23 | 0.0564 | 0.0015 | 0.5839 | 0.0159 | 0.0751 | 0.0011 |  | 468 | 34 | 467 | 10 | 467 | 7 | 100.0 |
| 15 | 212 | 331 | 0.64 | 0.0561 | 0.0020 | 0.5567 | 0.0195 | 0.0720 | 0.0012 |  | 456 | 49 | 449 | 13 | 448 | 7 | 100.2 |
| 16 | 285 | 383 | 0.74 | 0.0560 | 0.0013 | 0.5588 | 0.0138 | 0.0724 | 0.0011 |  | 452 | 30 | 451 | 9 | 451 | 6 | 100.0 |
| 17 | 188 | 364 | 0.51 | 0.0559 | 0.0015 | 0.5554 | 0.0149 | 0.0721 | 0.0011 |  | 446 | 34 | 449 | 10 | 449 | 6 | 100.0 |
| 18 | 124 | 248 | 0.50 | 0.0561 | 0.0015 | 0.5675 | 0.0155 | 0.0733 | 0.0011 |  | 458 | 34 | 456 | 10 | 456 | 7 | 100.0 |
| 19.1 | 80 | 453 | 0.18 | 0.0971 | 0.0089 | 3.5918 | 0.3251 | 0.2691 | 0.0088 |  | 1570 | 121 | 1548 | 72 | 1536 | 45 | 100.8 |
| 19.2 | 151 | 301 | 0.50 | 0.0562 | 0.0023 | 0.5723 | 0.0232 | 0.0739 | 0.0013 |  | 459 | 60 | 460 | 15 | 460 | 8 | 100.0 |
| 20 | 60.6 | 128 | 0.47 | 0.0560 | 0.0020 | 0.5618 | 0.0200 | 0.0728 | 0.0012 |  | 453 | 50 | 453 | 13 | 453 | 7 | 100.0 |
| 21 | 72.1 | 147 | 0.49 | 0.0563 | 0.0020 | 0.5782 | 0.0206 | 0.0745 | 0.0012 |  | 463 | 50 | 463 | 13 | 463 | 7 | 100.0 |
| 22 | 413 | 490 | 0.84 | 0.0688 | 0.0014 | 1.4066 | 0.0300 | 0.1483 | 0.0021 |  | 892 | 22 | 892 | 13 | 892 | 12 | 100.0 |
| 23 | 72 | 134 | 0.54 | 0.0565 | 0.0014 | 0.5890 | 0.0151 | 0.0756 | 0.0011 |  | 472 | 32 | 470 | 10 | 470 | 6 | 100.0 |
| 24.1 | 132 | 139 | 0.95 | 0.1448 | 0.0140 | 8.5103 | 0.8215 | 0.4265 | 0.0162 |  | 2285 | 114 | 2287 | 88 | 2290 | 73 | 99.9 |
| 24.2 | 56 | 176 | 0.32 | 0.0574 | 0.0022 | 0.6503 | 0.0243 | 0.0822 | 0.0014 |  | 508 | 52 | 509 | 15 | 509 | 8 | 100.0 |
| 25 | 141 | 157 | 0.90 | 0.0665 | 0.0018 | 1.2425 | 0.0332 | 0.1356 | 0.0020 |  | 822 | 31 | 820 | 15 | 820 | 12 | 100.0 |
| 26 | 136 | 284 | 0.48 | 0.0561 | 0.0015 | 0.5654 | 0.0155 | 0.0732 | 0.0010 |  | 455 | 36 | 455 | 10 | 455 | 6 | 100.0 |
| 27 | 118 | 229 | 0.52 | 0.0561 | 0.0015 | 0.5686 | 0.0150 | 0.0734 | 0.0010 |  | 458 | 35 | 457 | 10 | 457 | 6 | 100.0 |
| 28 | 149 | 371 | 0.40 | 0.1001 | 0.0086 | 3.8578 | 0.3255 | 0.2795 | 0.0045 |  | 1626 | 165 | 1605 | 68 | 1589 | 23 | 101.0 |
| 1# | 93.8 | 207 | 0.45 | 0.0566 | 0.0029 | 0.5652 | 0.0278 | 0.0724 | 0.0009 |  | 474 | 88 | 455 | 18 | 450 | 5 | 101.1 |
| 2# | 152 | 337 | 0.45 | 0.0528 | 0.0020 | 0.5349 | 0.0198 | 0.0733 | 0.0007 |  | 319 | 67 | 435 | 13 | 456 | 4 | 95.4 |
| 3# | 237 | 490 | 0.48 | 0.0575 | 0.0018 | 0.5843 | 0.0188 | 0.0732 | 0.0007 |  | 511 | 53 | 467 | 12 | 455 | 4 | 102.6 |
| 4# | 173 | 271 | 0.64 | 0.0567 | 0.0034 | 0.5586 | 0.0320 | 0.0714 | 0.0010 |  | 480 | 103 | 451 | 21 | 445 | 6 | 101.3 |
| 5# | 141 | 273 | 0.51 | 0.0571 | 0.0021 | 0.5652 | 0.0205 | 0.0715 | 0.0008 |  | 497 | 61 | 455 | 13 | 445 | 5 | 102.2 |
| 6# | 322 | 583 | 0.55 | 0.0565 | 0.0016 | 0.5562 | 0.0159 | 0.0710 | 0.0007 |  | 472 | 47 | 449 | 10 | 442 | 4 | 101.6 |
| 7# | 161 | 325 | 0.50 | 0.0585 | 0.0021 | 0.6019 | 0.0208 | 0.0745 | 0.0007 |  | 549 | 59 | 478 | 13 | 463 | 4 | 103.2 |
| 8# | 119 | 204 | 0.58 | 0.0575 | 0.0028 | 0.5706 | 0.0264 | 0.0721 | 0.0009 |  | 512 | 81 | 458 | 17 | 449 | 5 | 102.0 |
| 9# | 129 | 419 | 0.31 | 0.0562 | 0.0081 | 0.5753 | 0.0804 | 0.0736 | 0.0015 |  | 461 | 278 | 461 | 52 | 458 | 9 | 100.7 |
| 10# | 254 | 381 | 0.67 | 0.0556 | 0.0019 | 0.5483 | 0.0183 | 0.0712 | 0.0007 |  | 435 | 56 | 444 | 12 | 443 | 4 | 100.2 |
| GD16-1(biotite tonalite) | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 01 | 63 | 98 | 0.64 | 0.0556 | 0.0026 | 0.5405 | 0.0243 | 0.0705 | 0.0013 |  | 437 | 67 | 439 | 16 | 439 | 8 | 100.0 |
| 02 | 85 | 137 | 0.62 | 0.0559 | 0.0011 | 0.5518 | 0.0115 | 0.0716 | 0.0010 |  | 448 | 23 | 446 | 8 | 446 | 6 | 100.0 |
| 03 | 132 | 222 | 0.60 | 0.0556 | 0.0011 | 0.5377 | 0.0110 | 0.0701 | 0.0010 |  | 437 | 23 | 437 | 7 | 437 | 6 | 100.0 |
| 04 | 252 | 331 | 0.76 | 0.0559 | 0.0010 | 0.5516 | 0.0104 | 0.0716 | 0.0010 |  | 448 | 20 | 446 | 7 | 446 | 6 | 100.0 |
| 05 | 333 | 366 | 0.91 | 0.0559 | 0.0013 | 0.5571 | 0.0135 | 0.0723 | 0.0010 |  | 450 | 29 | 450 | 9 | 450 | 6 | 100.0 |
| 06 | 199 | 188 | 1.06 | 0.0558 | 0.0011 | 0.5493 | 0.0113 | 0.0714 | 0.0010 |  | 445 | 23 | 445 | 7 | 444 | 6 | 100.2 |
| 07 | 276 | 379 | 0.73 | 0.0557 | 0.0009 | 0.5420 | 0.0100 | 0.0706 | 0.0010 |  | 440 | 19 | 440 | 7 | 440 | 6 | 100.0 |

Table 4-4 (Continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| spot | Th | U | Th/U | Isotopic ratios | | | | | |  | Isotopic ages (Ma) | | | | | | Conc. |
| ppm | | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ |  | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ | % |
| GDX16-1(biotite tonalite) | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 08 | 183 | 271 | 0.68 | 0.0560 | 0.0011 | 0.5556 | 0.0120 | 0.0720 | 0.0011 |  | 452 | 23 | 449 | 8 | 448 | 6 | 100.2 |
| 09 | 120 | 191 | 0.63 | 0.0559 | 0.0012 | 0.5544 | 0.0120 | 0.0720 | 0.0010 |  | 447 | 25 | 448 | 8 | 448 | 6 | 100.0 |
| 10 | 202 | 245 | 0.82 | 0.0559 | 0.0012 | 0.5541 | 0.0122 | 0.0719 | 0.0010 |  | 449 | 25 | 448 | 8 | 447 | 6 | 100.2 |
| 11 | 256 | 362 | 0.71 | 0.0559 | 0.0044 | 0.5372 | 0.0411 | 0.0697 | 0.0019 |  | 449 | 121 | 437 | 27 | 434 | 11 | 100.7 |
| 12 | 150 | 220 | 0.68 | 0.0576 | 0.0025 | 0.6567 | 0.0286 | 0.0827 | 0.0016 |  | 514 | 61 | 513 | 17 | 512 | 10 | 100.2 |
| 13 | 192 | 32 | 6.05 | 0.1565 | 0.0048 | 9.7933 | 0.2984 | 0.4541 | 0.0083 |  | 2418 | 28 | 2416 | 28 | 2413 | 37 | 100.1 |
| 14 | 67 | 186 | 0.36 | 0.0560 | 0.0010 | 0.5580 | 0.0109 | 0.0723 | 0.0010 |  | 452 | 21 | 450 | 7 | 450 | 6 | 100.0 |
| 15 | 377 | 501 | 0.75 | 0.0556 | 0.0009 | 0.5343 | 0.0098 | 0.0698 | 0.0010 |  | 435 | 19 | 435 | 7 | 435 | 6 | 100.0 |
| 16 | 192 | 276 | 0.69 | 0.0557 | 0.0010 | 0.5379 | 0.0105 | 0.0701 | 0.0010 |  | 440 | 21 | 437 | 7 | 437 | 6 | 100.0 |
| 17 | 261 | 317 | 0.82 | 0.0557 | 0.0009 | 0.5387 | 0.0097 | 0.0702 | 0.0010 |  | 439 | 19 | 438 | 6 | 437 | 6 | 100.2 |
| 18 | 381 | 403 | 0.95 | 0.0556 | 0.0016 | 0.5345 | 0.0150 | 0.0697 | 0.0011 |  | 436 | 36 | 435 | 10 | 434 | 6 | 100.2 |
| 19 | 406 | 551 | 0.74 | 0.0557 | 0.0012 | 0.5404 | 0.0129 | 0.0703 | 0.0011 |  | 442 | 27 | 439 | 9 | 438 | 7 | 100.2 |
| 20 | 65 | 165 | 0.40 | 0.1153 | 0.0021 | 5.3963 | 0.1067 | 0.3395 | 0.0048 |  | 1885 | 17 | 1884 | 17 | 1884 | 23 | 100.0 |
| 21 | 191 | 232 | 0.82 | 0.0559 | 0.0011 | 0.5500 | 0.0113 | 0.0714 | 0.0010 |  | 447 | 23 | 445 | 7 | 445 | 6 | 100.0 |
| 22 | 154 | 220 | 0.70 | 0.0556 | 0.0017 | 0.5371 | 0.0165 | 0.0700 | 0.0011 |  | 438 | 41 | 436 | 11 | 436 | 7 | 100.0 |
| 23 | 76 | 117 | 0.65 | 0.0558 | 0.0019 | 0.5467 | 0.0182 | 0.0711 | 0.0011 |  | 444 | 46 | 443 | 12 | 443 | 7 | 100.0 |
| 24 | 211 | 299 | 0.71 | 0.0559 | 0.0014 | 0.5519 | 0.0140 | 0.0717 | 0.0011 |  | 447 | 31 | 446 | 9 | 446 | 6 | 100.0 |
| 25 | 304 | 397 | 0.77 | 0.0557 | 0.0009 | 0.5428 | 0.0099 | 0.0707 | 0.0010 |  | 442 | 19 | 440 | 6 | 440 | 6 | 100.0 |
| 26 | 133 | 121 | 1.10 | 0.0557 | 0.0016 | 0.5378 | 0.0159 | 0.0701 | 0.0011 |  | 439 | 39 | 437 | 10 | 437 | 6 | 100.0 |
| 27 | 204 | 232 | 0.88 | 0.0557 | 0.0023 | 0.5396 | 0.0220 | 0.0703 | 0.0012 |  | 442 | 59 | 438 | 15 | 438 | 7 | 100.0 |
| 28 | 116 | 111 | 1.04 | 0.0668 | 0.0018 | 1.2620 | 0.0345 | 0.1371 | 0.0020 |  | 831 | 33 | 829 | 15 | 828 | 11 | 100.1 |
| 29 | 55 | 71 | 0.77 | 0.1145 | 0.0023 | 5.3193 | 0.1074 | 0.3370 | 0.0046 |  | 1872 | 18 | 1872 | 17 | 1872 | 22 | 100.0 |
| 30 | 112 | 294 | 0.38 | 0.0559 | 0.0019 | 0.5442 | 0.0181 | 0.0706 | 0.0011 |  | 447 | 46 | 441 | 12 | 440 | 7 | 100.2 |
| 31 | 195 | 373 | 0.52 | 0.0561 | 0.0026 | 0.5603 | 0.0259 | 0.0724 | 0.0014 |  | 457 | 69 | 452 | 17 | 451 | 8 | 100.2 |
| 32 | 70 | 195 | 0.36 | 0.1356 | 0.0115 | 7.2032 | 0.5900 | 0.3871 | 0.0123 |  | 2172 | 98 | 2137 | 73 | 2109 | 57 | 101.3 |
| 33.1 | 125 | 197 | 0.63 | 0.1034 | 0.0056 | 4.1893 | 0.2189 | 0.2939 | 0.0064 |  | 1686 | 64 | 1672 | 43 | 1661 | 32 | 100.7 |
| 33.2 | 35 | 422 | 0.08 | 0.0560 | 0.0031 | 0.5583 | 0.0306 | 0.0724 | 0.0015 |  | 451 | 84 | 450 | 20 | 450 | 9 | 100.0 |
| GDX09(trondhjemite) | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 01 | 299 | 395 | 0.76 | 0.0558 | 0.0010 | 0.5481 | 0.0107 | 0.0712 | 0.0009 |  | 444 | 22 | 444 | 7 | 443 | 6 | 100.2 |
| 02 | 237 | 287 | 0.83 | 0.0559 | 0.0013 | 0.5520 | 0.0132 | 0.0716 | 0.0010 |  | 448 | 29 | 446 | 9 | 446 | 6 | 100.0 |
| 03 | 41 | 49 | 0.83 | 0.0551 | 0.0045 | 0.5074 | 0.0402 | 0.0668 | 0.0018 |  | 417 | 130 | 417 | 27 | 417 | 11 | 100.0 |
| 04.1 | 338 | 388 | 0.87 | 0.0558 | 0.0013 | 0.5436 | 0.0128 | 0.0707 | 0.0010 |  | 442 | 29 | 441 | 8 | 441 | 6 | 100.0 |
| 05.1 | 300 | 420 | 0.71 | 0.0555 | 0.0013 | 0.5338 | 0.0131 | 0.0697 | 0.0010 |  | 434 | 30 | 434 | 9 | 434 | 6 | 100.0 |
| 06 | 447 | 444 | 1.01 | 0.0562 | 0.0023 | 0.5644 | 0.0224 | 0.0729 | 0.0013 |  | 458 | 57 | 454 | 15 | 454 | 8 | 100.0 |
| 07 | 194 | 477 | 0.41 | 0.0555 | 0.0027 | 0.5307 | 0.0255 | 0.0694 | 0.0014 |  | 432 | 72 | 432 | 17 | 432 | 8 | 100.0 |
| 08 | 348 | 390 | 0.89 | 0.0558 | 0.0013 | 0.5428 | 0.0132 | 0.0706 | 0.0010 |  | 443 | 29 | 440 | 9 | 440 | 6 | 100.0 |
| 09 | 146 | 264 | 0.55 | 0.0557 | 0.0015 | 0.5427 | 0.0146 | 0.0707 | 0.0011 |  | 442 | 34 | 440 | 10 | 440 | 6 | 100.0 |
| 10 | 232 | 186 | 1.24 | 0.0549 | 0.0030 | 0.5004 | 0.0265 | 0.0662 | 0.0013 |  | 408 | 82 | 412 | 18 | 413 | 8 | 99.8 |
| 11 | 100 | 150 | 0.67 | 0.0556 | 0.0017 | 0.5351 | 0.0166 | 0.0698 | 0.0011 |  | 437 | 42 | 435 | 11 | 435 | 7 | 100.0 |
| 12 | 127 | 161 | 0.78 | 0.0559 | 0.0019 | 0.5524 | 0.0190 | 0.0717 | 0.0012 |  | 447 | 48 | 447 | 12 | 447 | 7 | 100.0 |
| 13 | 131 | 240 | 0.55 | 0.0559 | 0.0022 | 0.5526 | 0.0219 | 0.0717 | 0.0013 |  | 450 | 57 | 447 | 14 | 446 | 8 | 100.2 |
| 14 | 227 | 307 | 0.74 | 0.0558 | 0.0030 | 0.5462 | 0.0281 | 0.0710 | 0.0014 |  | 444 | 79 | 442 | 18 | 442 | 8 | 100.0 |
| 15 | 260 | 269 | 0.97 | 0.0560 | 0.0017 | 0.5571 | 0.0168 | 0.0721 | 0.0011 |  | 453 | 41 | 450 | 11 | 449 | 6 | 100.2 |
| 16 | 175 | 234 | 0.75 | 0.0560 | 0.0016 | 0.5591 | 0.0159 | 0.0725 | 0.0011 |  | 451 | 37 | 451 | 10 | 451 | 7 | 100.0 |
| 17 | 343 | 339 | 1.01 | 0.0557 | 0.0025 | 0.5459 | 0.0239 | 0.0711 | 0.0013 |  | 440 | 66 | 442 | 16 | 443 | 8 | 99.8 |

Table 4-4 (Continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| spot | Th | U | Th/U | Isotopic ratios | | | | | |  | Isotopic ages (Ma) | | | | | | Conc. |
| ppm | | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ |  | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ | % |
| GDX09(trondhjemite) | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 | 234 | 225 | 1.04 | 0.0557 | 0.0024 | 0.5385 | 0.0232 | 0.0702 | 0.0013 |  | 438 | 63 | 437 | 15 | 437 | 8 | 100.0 |
| 19 | 239 | 515 | 0.46 | 0.0556 | 0.0017 | 0.5348 | 0.0166 | 0.0698 | 0.0011 |  | 436 | 43 | 435 | 11 | 435 | 6 | 100.0 |
| 20 | 273 | 430 | 0.64 | 0.0562 | 0.0016 | 0.5695 | 0.0165 | 0.0736 | 0.0011 |  | 459 | 38 | 458 | 11 | 458 | 7 | 100.0 |
| 21 | 320 | 402 | 0.80 | 0.0560 | 0.0015 | 0.5541 | 0.0150 | 0.0718 | 0.0011 |  | 450 | 35 | 448 | 10 | 447 | 6 | 100.2 |
| 22 | 103 | 136 | 0.76 | 0.0560 | 0.0018 | 0.5563 | 0.0175 | 0.0721 | 0.0011 |  | 450 | 42 | 449 | 11 | 449 | 7 | 100.0 |
| 23 | 343 | 398 | 0.86 | 0.0560 | 0.0015 | 0.5569 | 0.0151 | 0.0721 | 0.0011 |  | 453 | 35 | 449 | 10 | 449 | 6 | 100.0 |
| 24 | 89 | 145 | 0.61 | 0.0563 | 0.0017 | 0.5772 | 0.0175 | 0.0744 | 0.0012 |  | 465 | 40 | 463 | 11 | 462 | 7 | 100.2 |
| 25 | 26.4 | 48.5 | 0.54 | 0.0558 | 0.0031 | 0.5479 | 0.0294 | 0.0712 | 0.0014 |  | 444 | 84 | 444 | 19 | 444 | 8 | 100.0 |
| 26 | 263 | 336 | 0.78 | 0.0561 | 0.0016 | 0.5672 | 0.0162 | 0.0733 | 0.0011 |  | 458 | 37 | 456 | 10 | 456 | 7 | 100.0 |
| 27 | 375 | 286 | 1.31 | 0.0556 | 0.0027 | 0.5325 | 0.0248 | 0.0695 | 0.0013 |  | 437 | 71 | 433 | 16 | 433 | 8 | 100.0 |
| 28 | 612 | 672 | 0.91 | 0.0557 | 0.0011 | 0.5420 | 0.0110 | 0.0706 | 0.0010 |  | 440 | 23 | 440 | 7 | 440 | 6 | 100.0 |
| 29 | 506 | 578 | 0.87 | 0.0554 | 0.0017 | 0.5293 | 0.0160 | 0.0693 | 0.0011 |  | 429 | 41 | 431 | 11 | 432 | 6 | 99.8 |
| 30 | 437 | 592 | 0.74 | 0.0558 | 0.0011 | 0.5444 | 0.0115 | 0.0708 | 0.0010 |  | 443 | 24 | 441 | 8 | 441 | 6 | 100.0 |
| 31 | 188 | 336 | 0.56 | 0.0558 | 0.0021 | 0.5525 | 0.0207 | 0.0718 | 0.0012 |  | 446 | 54 | 447 | 14 | 447 | 7 | 100.0 |
| 1# | 338 | 458 | 0.74 | 0.0561 | 0.0024 | 0.5535 | 0.0233 | 0.0710 | 0.0010 |  | 457 | 69 | 447 | 15 | 442 | 6 | 101.1 |
| 2.1# | 205 | 433 | 0.47 | 0.0540 | 0.0030 | 0.5299 | 0.0280 | 0.0705 | 0.0009 |  | 370 | 95 | 432 | 19 | 439 | 6 | 98.4 |
| 2.2# | 5.49 | 20.1 | 0.27 | 0.0617 | 0.0164 | 0.5417 | 0.1590 | 0.0696 | 0.0034 |  | 665 | 511 | 440 | 105 | 434 | 21 | 101.4 |
| 3# | 1.64 | 14.0 | 0.12 | 0.1167 | 0.0283 | 0.4464 | 0.0752 | 0.0373 | 0.0023 |  | 1907 | 219 | 375 | 53 | 236 | 14 | 158.9 |
| 4.2# | 146 | 153 | 0.95 | 0.0557 | 0.0069 | 0.5509 | 0.0607 | 0.0715 | 0.0023 |  | 442 | 189 | 446 | 40 | 445 | 14 | 100.2 |
| 5.2# | 3.27 | 23.5 | 0.14 | 0.0646 | 0.0119 | 0.4802 | 0.0785 | 0.0539 | 0.0045 |  | 761 | 411 | 398 | 54 | 339 | 28 | 117.4 |
| 6# | 2.77 | 14.1 | 0.20 | 0.0532 | 0.0101 | 0.4595 | 0.0846 | 0.0626 | 0.0029 |  | 339 | 381 | 384 | 59 | 391 | 18 | 98.2 |
| GD11-4(biotite granodiorite) | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 01 | 1.09 | 567 | 0.00 | 0.0514 | 0.0019 | 0.2805 | 0.0103 | 0.0396 | 0.0007 |  | 260 | 53 | 251 | 8 | 250 | 4 | 100.4 |
| 02 | 254 | 275 | 0.92 | 0.0561 | 0.0033 | 0.5605 | 0.0323 | 0.0725 | 0.0016 |  | 456 | 89 | 452 | 21 | 451 | 9 | 100.2 |
| 03 | 187 | 227 | 0.82 | 0.0557 | 0.0026 | 0.5406 | 0.0250 | 0.0704 | 0.0013 |  | 440 | 70 | 439 | 16 | 439 | 8 | 100.0 |
| 04 | 179 | 1689 | 0.11 | 0.0686 | 0.0014 | 1.3966 | 0.0292 | 0.1476 | 0.0021 |  | 888 | 22 | 887 | 12 | 887 | 12 | 100.0 |
| 05 | 136 | 539 | 0.25 | 0.0582 | 0.0023 | 0.6996 | 0.0278 | 0.0873 | 0.0016 |  | 536 | 55 | 539 | 17 | 539 | 9 | 100.0 |
| 06 | 142 | 444 | 0.32 | 0.0634 | 0.0025 | 1.0333 | 0.0398 | 0.1182 | 0.0020 |  | 723 | 53 | 721 | 20 | 720 | 12 | 100.1 |
| 07 | 145 | 276 | 0.52 | 0.0582 | 0.0015 | 0.6944 | 0.0187 | 0.0866 | 0.0013 |  | 536 | 33 | 535 | 11 | 535 | 8 | 100.0 |
| 08 | 187 | 314 | 0.60 | 0.0560 | 0.0017 | 0.5580 | 0.0170 | 0.0723 | 0.0011 |  | 453 | 40 | 450 | 11 | 450 | 7 | 100.0 |
| 09 | 808 | 2615 | 0.31 | 0.0559 | 0.0009 | 0.5526 | 0.0097 | 0.0717 | 0.0010 |  | 447 | 18 | 447 | 6 | 447 | 6 | 100.0 |
| 10 | 273 | 460 | 0.59 | 0.0561 | 0.0015 | 0.5647 | 0.0151 | 0.0731 | 0.0011 |  | 455 | 34 | 455 | 10 | 455 | 7 | 100.0 |
| 11 | 487 | 843 | 0.58 | 0.0558 | 0.0017 | 0.5471 | 0.0167 | 0.0712 | 0.0011 |  | 442 | 41 | 443 | 11 | 443 | 7 | 100.0 |
| 12 | 395 | 580 | 0.68 | 0.0556 | 0.0020 | 0.5408 | 0.0190 | 0.0705 | 0.0012 |  | 438 | 48 | 439 | 13 | 439 | 7 | 100.0 |
| 13 | 251 | 457 | 0.55 | 0.0559 | 0.0015 | 0.5542 | 0.0147 | 0.0719 | 0.0011 |  | 449 | 33 | 448 | 10 | 448 | 6 | 100.0 |
| 14 | 3.43 | 2392 | 0.00 | 0.0513 | 0.0009 | 0.2829 | 0.0052 | 0.0400 | 0.0005 |  | 254 | 20 | 253 | 4 | 253 | 3 | 100.0 |
| 15 | 299 | 838 | 0.36 | 0.0559 | 0.0012 | 0.5525 | 0.0122 | 0.0717 | 0.0010 |  | 447 | 25 | 447 | 8 | 447 | 6 | 100.0 |
| 16 | 306 | 1204 | 0.25 | 0.0560 | 0.0020 | 0.5526 | 0.0201 | 0.0717 | 0.0013 |  | 451 | 49 | 447 | 13 | 446 | 8 | 100.2 |
| 17 | 192 | 359 | 0.54 | 0.0560 | 0.0021 | 0.5507 | 0.0208 | 0.0714 | 0.0012 |  | 451 | 53 | 445 | 14 | 444 | 7 | 100.2 |
| 18 | 275 | 498 | 0.55 | 0.0551 | 0.0016 | 0.5047 | 0.0151 | 0.0665 | 0.0011 |  | 415 | 39 | 415 | 10 | 415 | 6 | 100.0 |
| 19 | 153 | 333 | 0.46 | 0.0550 | 0.0018 | 0.5011 | 0.0167 | 0.0661 | 0.0011 |  | 412 | 46 | 412 | 11 | 413 | 6 | 99.8 |
| 20 | 104 | 628 | 0.17 | 0.0557 | 0.0021 | 0.5413 | 0.0202 | 0.0705 | 0.0012 |  | 439 | 53 | 439 | 13 | 439 | 7 | 100.0 |
| 21 | 66 | 144 | 0.46 | 0.0557 | 0.0020 | 0.5435 | 0.0198 | 0.0708 | 0.0012 |  | 441 | 52 | 441 | 13 | 441 | 7 | 100.0 |
| 22 | 506 | 1650 | 0.31 | 0.0575 | 0.0013 | 0.6541 | 0.0157 | 0.0825 | 0.0013 |  | 512 | 28 | 511 | 10 | 511 | 7 | 100.0 |

Table 4-4 (Continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| spot | Th | U | Th/U | Isotopic ratios | | | | | |  | Isotopic ages (Ma) | | | | | | Conc. |
| ppm | | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ |  | 207Pb  /206Pb | ±1σ | 207Pb  /235U | ±1σ | 206Pb  /238U | ±1σ | % |
| GD11-4(biotite granodiorite) | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23.1 | 62 | 280 | 0.22 | 0.0506 | 0.0019 | 0.2441 | 0.0090 | 0.0350 | 0.0006 |  | 221 | 56 | 222 | 7 | 222 | 3 | 100.0 |
| 23.2 | 483 | 7284 | 0.07 | 0.0494 | 0.0019 | 0.1650 | 0.0064 | 0.0243 | 0.0004 |  | 169 | 58 | 155 | 6 | 155 | 3 | 100.0 |
| 24 | 2.76 | 2311 | 0.00 | 0.0514 | 0.0019 | 0.2952 | 0.0112 | 0.0416 | 0.0008 |  | 261 | 54 | 263 | 9 | 263 | 5 | 100.0 |
| 25 | 600 | 1675 | 0.36 | 0.0557 | 0.0017 | 0.5422 | 0.0161 | 0.0706 | 0.0010 |  | 442 | 40 | 440 | 11 | 440 | 6 | 100.0 |
| 26 | 829 | 2934 | 0.28 | 0.0562 | 0.0011 | 0.5711 | 0.0115 | 0.0737 | 0.0010 |  | 459 | 23 | 459 | 7 | 459 | 6 | 100.0 |
| 1# | 436 | 1002 | 0.44 | 0.0542 | 0.0015 | 0.5386 | 0.0141 | 0.0717 | 0.0006 |  | 378 | 43 | 438 | 9 | 446 | 4 | 98.2 |
| 2# | 150 | 248 | 0.61 | 0.0572 | 0.0026 | 0.5731 | 0.0244 | 0.0726 | 0.0009 |  | 500 | 73 | 460 | 16 | 452 | 5 | 101.8 |
| 3# | 380 | 614 | 0.62 | 0.0552 | 0.0015 | 0.5605 | 0.0154 | 0.0731 | 0.0006 |  | 419 | 46 | 452 | 10 | 455 | 4 | 99.3 |
| 4# | 3.88 | 2033 | 0.00 | 0.0513 | 0.0013 | 0.2743 | 0.0067 | 0.0384 | 0.0003 |  | 256 | 43 | 246 | 5 | 243 | 2 | 101.2 |
| 5# | 542 | 4142 | 0.13 | 0.0548 | 0.0011 | 0.5463 | 0.0107 | 0.0716 | 0.0006 |  | 405 | 29 | 443 | 7 | 446 | 4 | 99.3 |
| 6# | 389 | 1046 | 0.37 | 0.0568 | 0.0015 | 0.5605 | 0.0148 | 0.0709 | 0.0007 |  | 483 | 40 | 452 | 10 | 442 | 4 | 102.3 |
| 7# | 1028 | 2801 | 0.37 | 0.0533 | 0.0012 | 0.5333 | 0.0114 | 0.0720 | 0.0006 |  | 341 | 33 | 434 | 8 | 448 | 4 | 96.9 |
| 8# | 485 | 1950 | 0.25 | 0.0527 | 0.0011 | 0.5145 | 0.0107 | 0.0703 | 0.0006 |  | 315 | 33 | 421 | 7 | 438 | 3 | 96.1 |
| 9# | 183 | 602 | 0.30 | 0.0571 | 0.0042 | 0.5505 | 0.0379 | 0.0698 | 0.0013 |  | 497 | 120 | 445 | 25 | 435 | 8 | 102.3 |
| 10# | 284 | 1949 | 0.15 | 0.0533 | 0.0012 | 0.5383 | 0.0117 | 0.0727 | 0.0006 |  | 341 | 35 | 437 | 8 | 452 | 4 | 96.7 |
| GD21-1(biotite monzogranite) | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 01 | 131 | 154 | 0.85 | 0.0558 | 0.0013 | 0.5459 | 0.0129 | 0.0710 | 0.0011 |  | 443 | 28 | 442 | 8 | 442 | 6 | 100.0 |
| 02 | 147 | 260 | 0.57 | 0.0555 | 0.0010 | 0.5297 | 0.0108 | 0.0692 | 0.0010 |  | 432 | 22 | 432 | 7 | 432 | 6 | 100.0 |
| 03 | 955 | 666 | 1.43 | 0.0555 | 0.0008 | 0.5292 | 0.0090 | 0.0691 | 0.0010 |  | 432 | 17 | 431 | 6 | 431 | 6 | 100.0 |
| 04.1 | 104 | 797 | 0.13 | 0.0661 | 0.0018 | 1.2105 | 0.0335 | 0.1326 | 0.0023 |  | 809 | 31 | 805 | 15 | 803 | 13 | 100.2 |
| 04.2 | 184 | 237 | 0.78 | 0.0555 | 0.0010 | 0.5315 | 0.0102 | 0.0694 | 0.0010 |  | 434 | 20 | 433 | 7 | 433 | 6 | 100.0 |
| 05 | 324 | 381 | 0.85 | 0.0558 | 0.0011 | 0.5456 | 0.0110 | 0.0710 | 0.0009 |  | 442 | 23 | 442 | 7 | 442 | 6 | 100.0 |
| 06 | 147 | 174 | 0.85 | 0.0561 | 0.0014 | 0.5575 | 0.0142 | 0.0721 | 0.0011 |  | 455 | 31 | 450 | 9 | 449 | 6 | 100.2 |
| 07 | 112 | 124 | 0.90 | 0.0557 | 0.0012 | 0.5424 | 0.0124 | 0.0706 | 0.0010 |  | 442 | 27 | 440 | 8 | 440 | 6 | 100.0 |
| 08 | 255 | 303 | 0.84 | 0.0558 | 0.0017 | 0.5416 | 0.0164 | 0.0704 | 0.0011 |  | 443 | 40 | 439 | 11 | 439 | 7 | 100.0 |
| 09 | 288 | 609 | 0.47 | 0.0557 | 0.0011 | 0.5424 | 0.0120 | 0.0706 | 0.0011 |  | 442 | 24 | 440 | 8 | 440 | 7 | 100.0 |
| 10 | 149 | 197 | 0.76 | 0.0560 | 0.0013 | 0.5578 | 0.0131 | 0.0723 | 0.0010 |  | 450 | 28 | 450 | 9 | 450 | 6 | 100.0 |
| 11 | 252 | 339 | 0.74 | 0.0557 | 0.0010 | 0.5394 | 0.0105 | 0.0703 | 0.0010 |  | 439 | 21 | 438 | 7 | 438 | 6 | 100.0 |
| 12 | 762 | 471 | 1.62 | 0.0557 | 0.0009 | 0.5407 | 0.0099 | 0.0704 | 0.0010 |  | 440 | 19 | 439 | 7 | 439 | 6 | 100.0 |
| 13 | 193 | 218 | 0.88 | 0.0556 | 0.0010 | 0.5335 | 0.0104 | 0.0697 | 0.0010 |  | 434 | 21 | 434 | 7 | 434 | 6 | 100.0 |
| 14 | 234 | 457 | 0.51 | 0.0557 | 0.0008 | 0.5379 | 0.0090 | 0.0701 | 0.0010 |  | 439 | 17 | 437 | 6 | 437 | 6 | 100.0 |
| 15 | 583 | 400 | 1.46 | 0.0556 | 0.0009 | 0.5381 | 0.0093 | 0.0702 | 0.0010 |  | 438 | 18 | 437 | 6 | 437 | 6 | 100.0 |
| 16 | 102 | 121 | 0.84 | 0.0556 | 0.0019 | 0.5356 | 0.0180 | 0.0698 | 0.0011 |  | 438 | 46 | 436 | 12 | 435 | 7 | 100.2 |
| 17 | 315 | 271 | 1.16 | 0.0554 | 0.0018 | 0.5300 | 0.0175 | 0.0694 | 0.0011 |  | 428 | 45 | 432 | 12 | 433 | 7 | 99.8 |
| 18.1 | 205 | 220 | 0.93 | 0.0559 | 0.0010 | 0.5515 | 0.0106 | 0.0715 | 0.0010 |  | 450 | 20 | 446 | 7 | 445 | 6 | 100.2 |
| 18.2 | 8.61 | 32 | 0.27 | 0.0562 | 0.0037 | 0.5610 | 0.0362 | 0.0724 | 0.0017 |  | 461 | 102 | 452 | 24 | 451 | 10 | 100.2 |
| 19 | 127 | 246 | 0.51 | 0.0548 | 0.0019 | 0.5279 | 0.0184 | 0.0698 | 0.0011 |  | 405 | 50 | 430 | 12 | 435 | 7 | 98.9 |
| 20 | 477 | 328 | 1.46 | 0.0556 | 0.0011 | 0.5333 | 0.0111 | 0.0696 | 0.0010 |  | 435 | 23 | 434 | 7 | 434 | 6 | 100.0 |
| 21 | 599 | 586 | 1.02 | 0.0559 | 0.0009 | 0.5555 | 0.0097 | 0.0721 | 0.0010 |  | 449 | 18 | 449 | 6 | 449 | 6 | 100.0 |
| 22 | 215 | 204 | 1.06 | 0.0556 | 0.0027 | 0.5292 | 0.0250 | 0.0691 | 0.0013 |  | 435 | 72 | 431 | 17 | 430 | 8 | 100.2 |
| 23 | 186 | 224 | 0.83 | 0.0561 | 0.0013 | 0.5683 | 0.0133 | 0.0734 | 0.0011 |  | 458 | 28 | 457 | 9 | 457 | 6 | 100.0 |
| 24 | 73 | 163 | 0.44 | 0.0560 | 0.0015 | 0.5609 | 0.0155 | 0.0726 | 0.0011 |  | 454 | 36 | 452 | 10 | 452 | 6 | 100.0 |
| 25 | 572 | 610 | 0.94 | 0.0560 | 0.0016 | 0.5574 | 0.0160 | 0.0722 | 0.0010 |  | 451 | 39 | 450 | 10 | 450 | 6 | 100.0 |
| 26 | 473 | 848 | 0.56 | 0.0557 | 0.0011 | 0.5384 | 0.0113 | 0.0701 | 0.0010 |  | 440 | 24 | 437 | 7 | 437 | 6 | 100.0 |
| 27 | 225 | 207 | 1.08 | 0.0561 | 0.0024 | 0.5654 | 0.0235 | 0.0731 | 0.0012 |  | 458 | 62 | 455 | 15 | 455 | 7 | 100.0 |
| 28 | 428 | 823 | 0.52 | 0.0556 | 0.0010 | 0.5371 | 0.0105 | 0.0701 | 0.0009 |  | 435 | 22 | 437 | 7 | 437 | 6 | 100.0 |