**Table S3**. LA-ICPMS Lu-Hf isotopic data of zircon from the NPIC granites.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Spot | Sample Name | 176Yb/177Hf | 1 | 176Lu/177Hf | 1 | 176Hf/177Hf | 1 | εHf (0) | εHf (t) | TDMI  (Ma) | fs | TDMII  (av.CC) |
| 1013A095 | NP-RAPG-01-2 | 0.16516 | 0.00076 | 0.00398 | 0.00002 | 0.28263 | 0.00000 | -5.0 | 10.8 | 954.4 | -0.88 | 1021.8 |
| 1013A096 | NP-RAPG-01-3 | 0.11461 | 0.00206 | 0.00241 | 0.00003 | 0.28262 | 0.00002 | -5.3 | 11.3 | 927.0 | -0.93 | 989.5 |
| 1013A099 | NP-RAPG-01-5 | 0.12796 | 0.00091 | 0.00262 | 0.00002 | 0.28268 | 0.00001 | -3.3 | 13.2 | 848.3 | -0.92 | 868.4 |
| 1013A100 | NP-RAPG-01-6 | 0.12217 | 0.00094 | 0.00316 | 0.00002 | 0.28257 | 0.00002 | -7.2 | 9.0 | 1025.4 | -0.90 | 1133.6 |
| 1013A112 | NP-RAPG-01-15 | 0.10336 | 0.00127 | 0.00234 | 0.00002 | 0.28263 | 0.00001 | -5.1 | 11.5 | 917.6 | -0.93 | 975.4 |
| 1013A113 | NP-RAPG-01-16 | 0.13638 | 0.00086 | 0.00344 | 0.00003 | 0.28262 | 0.00001 | -5.4 | 10.7 | 958.8 | -0.90 | 1031.8 |
| 1013A116 | NP-RAPG-01-18 | 0.07657 | 0.00085 | 0.00171 | 0.00002 | 0.28260 | 0.00001 | -6.2 | 10.8 | 947.4 | -0.95 | 1024.9 |
| 1013A118 | NP-RAPG-01-20 | 0.09142 | 0.00108 | 0.00213 | 0.00001 | 0.28254 | 0.00001 | -8.2 | 8.6 | 1037.4 | -0.94 | 1161.5 |
| 1013A123 | NP-RAPG-01-23 | 0.08013 | 0.00079 | 0.00185 | 0.00003 | 0.28256 | 0.00001 | -7.6 | 9.3 | 1006.7 | -0.94 | 1116.5 |
| 1013A124 | NP-RAPG-01-24 | 0.06342 | 0.00075 | 0.00135 | 0.00002 | 0.28258 | 0.00001 | -6.9 | 10.3 | 963.9 | -0.96 | 1053.1 |
| 1013A195 | NP-RAGG-01-12 | 0.14096 | 0.00121 | 0.00305 | 0.00001 | 0.28262 | 0.00002 | -5.3 | 11.0 | 943.6 | -0.91 | 1010.2 |
| 1013A200 | NP-RAGG-01-16 | 0.19272 | 0.00354 | 0.00469 | 0.00008 | 0.28263 | 0.00002 | -5.1 | 10.3 | 978.8 | -0.86 | 1051.6 |
| 1013A204 | NP-RAGG-01-18 | 0.16025 | 0.00148 | 0.00318 | 0.00004 | 0.28264 | 0.00002 | -4.5 | 11.7 | 913.6 | -0.90 | 964.6 |
| 1013A209 | NP-RAGG-01-22 | 0.10241 | 0.00098 | 0.00240 | 0.00001 | 0.28265 | 0.00001 | -4.4 | 12.2 | 890.0 | -0.93 | 931.7 |
| 1013A213 | NP-RAGG-01-25 | 0.09878 | 0.00046 | 0.00210 | 0.00001 | 0.28261 | 0.00001 | -5.9 | 10.9 | 943.5 | -0.94 | 1015.5 |
| 1013A007 | NP-PINK-01-01 | 0.12109 | 0.00084 | 0.00229 | 0.00001 | 0.28274 | 0.00002 | -1.1 | 14.0 | 752.8 | -0.93 | 761.9 |
| 1013A009 | NP-PINK-01-03 | 0.12114 | 0.00092 | 0.00238 | 0.00001 | 0.28264 | 0.00002 | -4.7 | 10.3 | 903.6 | -0.93 | 684.3 |
| 1013A013 | NP-PINK-01-06 | 0.10160 | 0.00030 | 0.00201 | 0.00000 | 0.28257 | 0.00002 | -7.0 | 8.3 | 986.9 | -0.94 | 1125.3 |
| 1013A014 | NP-PINK-01-07 | 0.10657 | 0.00058 | 0.00202 | 0.00001 | 0.28273 | 0.00002 | -1.5 | 13.8 | 761.6 | -0.94 | 775.7 |
| 1013A015 | NP-PINK-01-08 | 0.16067 | 0.00041 | 0.00322 | 0.00001 | 0.28267 | 0.00002 | -3.5 | 11.1 | 874.2 | -0.90 | 943.3 |
| 1013A017 | NP-PINK-01-09 | 0.21086 | 0.00575 | 0.00372 | 0.00009 | 0.28272 | 0.00002 | -1.8 | 12.7 | 811.3 | -0.89 | 847.4 |
| 1013A020 | NP-PINK-01-12 | 0.13525 | 0.00125 | 0.00256 | 0.00002 | 0.28258 | 0.00002 | -6.8 | 8.2 | 993.6 | -0.92 | 1129.5 |
| 1013A024 | NP-PINK-01-14 | 0.27365 | 0.00107 | 0.00493 | 0.00003 | 0.28265 | 0.00002 | -4.4 | 9.4 | 957.5 | -0.85 | 1052.1 |
| 1013A025 | NP-PINK-01-15 | 0.15630 | 0.00134 | 0.00342 | 0.00004 | 0.28258 | 0.00001 | -6.7 | 7.8 | 1014.7 | -0.90 | 1151.5 |
| 1013A026 | NP-PINK-01-16 | 0.20804 | 0.00032 | 0.00421 | 0.00001 | 0.28274 | 0.00002 | -1.0 | 13.2 | 786.3 | -0.87 | 809.3 |
| 1013A050 | NP-GG-01-01 | 0.12194 | 0.00073 | 0.00228 | 0.00000 | 0.28264 | 0.00002 | -4.6 | 11.0 | 893.5 | -0.93 | 968.3 |
| 1013A051 | NP-GG-01-02 | 0.13630 | 0.00113 | 0.00273 | 0.00001 | 0.28272 | 0.00002 | -2.0 | 13.3 | 797.8 | -0.92 | 820.0 |
| 1013A057 | NP-GG-01-06 | 0.16354 | 0.00067 | 0.00309 | 0.00000 | 0.28271 | 0.00002 | -2.1 | 13.0 | 810.2 | -0.91 | 838.1 |
| 1013A058 | NP-GG-01-07 | 0.12208 | 0.00037 | 0.00235 | 0.00000 | 0.28270 | 0.00002 | -2.7 | 12.8 | 818.9 | -0.93 | 853.2 |
| 1013A061 | NP-GG-01-09 | 0.21551 | 0.00056 | 0.00413 | 0.00001 | 0.28273 | 0.00002 | -1.4 | 13.2 | 803.0 | -0.88 | 825.0 |
| 1013A062 | NP-GG-01-10 | 0.17076 | 0.00166 | 0.00324 | 0.00003 | 0.28267 | 0.00002 | -3.7 | 11.3 | 881.8 | -0.90 | 945.1 |
| 1013A063 | NP-GG-01-11 | 0.20181 | 0.00334 | 0.00378 | 0.00006 | 0.28271 | 0.00002 | -2.3 | 12.5 | 834.0 | -0.89 | 871.6 |
| 1013A064 | NP-GG-01-12 | 0.16905 | 0.00097 | 0.00319 | 0.00001 | 0.28268 | 0.00002 | -3.1 | 12.0 | 854.6 | -0.90 | 904.5 |
| 1013A065 | NP-GG-01-15 | 0.09848 | 0.00031 | 0.00188 | 0.00001 | 0.28262 | 0.00002 | -5.5 | 10.2 | 922.5 | -0.94 | 1015.8 |
| 1013A069 | NP-GG-01-16 | 0.13776 | 0.00125 | 0.00255 | 0.00001 | 0.28273 | 0.00002 | -1.3 | 14.1 | 766.1 | -0.92 | 771.9 |
| 1013A073 | NP-GG-01-18 | 0.19428 | 0.00116 | 0.00376 | 0.00001 | 0.28272 | 0.00002 | -1.9 | 12.9 | 815.3 | -0.89 | 844.0 |