**Supp. Table 4:** Zircon Lu–Hf isotopic data for the Nanwenhe gneissic granites (MD003-2, MLP156-Q21, and MLP133-Q14).

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample: MD003-2** | | | | | | | | | |
| **spot** | **Age/Ma** | **176Yb/177Hf** | **176Lu/177Hf** | **176Hf/177Hf** | **±2σ** | **fLu/Hf** | **εHf(t)** | **TDM /Ma** | **TDMC/Ma** |
| 1 | 418 | 0.050 | 0.002 | 0.283 | 1.625E-05 | -0.951 | 4.740 | 854.874 | 1104.247 |
| 2 | 543 | 0.029 | 0.001 | 0.282 | 3.149E-05 | -0.972 | -3.282 | 1271.334 | 1708.669 |
| 3 | 416 | 0.049 | 0.002 | 0.283 | 1.625E-05 | -0.954 | 8.228 | 711.433 | 881.003 |
| 4 | 418 | 0.043 | 0.001 | 0.283 | 1.625E-05 | -0.957 | 7.898 | 725.346 | 903.285 |
| 5 | 418 | 0.053 | 0.002 | 0.283 | 1.818E-05 | -0.950 | 5.549 | 822.126 | 1052.696 |
| 6 | 419 | 0.075 | 0.002 | 0.282 | 1.625E-05 | -0.928 | -1.730 | 1131.562 | 1515.617 |
| 7 | 416 | 0.053 | 0.002 | 0.283 | 2.126E-05 | -0.952 | 5.815 | 809.939 | 1034.924 |
| 8 | 419 | 0.040 | 0.001 | 0.283 | 1.625E-05 | -0.963 | 6.692 | 773.123 | 981.261 |
| 9 | 460 | 0.045 | 0.001 | 0.283 | 2.079E-05 | -0.959 | 7.909 | 760.442 | 935.159 |
| 10 | 420 | 0.035 | 0.001 | 0.283 | 1.740E-05 | -0.968 | 5.497 | 820.259 | 1058.189 |
| 11 | 420 | 0.089 | 0.003 | 0.283 | 2.539E-05 | -0.919 | 0.935 | 1028.248 | 1347.783 |
| 12 | 420 | 0.069 | 0.002 | 0.283 | 1.763E-05 | -0.939 | 4.538 | 870.207 | 1119.225 |
| 13 | 420 | 0.038 | 0.001 | 0.283 | 1.631E-05 | -0.966 | 7.246 | 750.861 | 946.476 |
| 14 | 460 | 0.067 | 0.002 | 0.283 | 1.555E-05 | -0.940 | 5.987 | 844.389 | 1057.611 |
| 15 | 461 | 0.066 | 0.002 | 0.283 | 1.555E-05 | -0.941 | 5.055 | 882.287 | 1117.183 |
| 16 | 461 | 0.048 | 0.001 | 0.283 | 1.555E-05 | -0.957 | 7.599 | 773.847 | 955.265 |
| 17 | 461 | 0.057 | 0.002 | 0.283 | 2.081E-05 | -0.950 | 8.472 | 740.494 | 899.764 |
| 18 | 461 | 0.051 | 0.002 | 0.283 | 1.898E-05 | -0.954 | 7.149 | 793.097 | 984.228 |
| 19 | 462 | 0.045 | 0.001 | 0.283 | 1.505E-05 | -0.961 | 7.653 | 772.196 | 953.157 |
| 20 | 420 | 0.046 | 0.001 | 0.283 | 1.785E-05 | -0.960 | 6.424 | 785.699 | 998.887 |
| **Sample: MLP156-Q21** | | | | | | | | | |
| 1 | 447 | 0.089 | 0.002 | 0.282 | 3.70E-05 | -0.949 | -10.523 | 1496.376 | 2093.699 |
| 2 | 432 | 0.080 | 0.002 | 0.282 | 3.20E-05 | -0.953 | -6.238 | 1308.530 | 1812.226 |
| 3 | 433 | 0.083 | 0.001 | 0.282 | 3.60E-05 | -0.955 | -6.372 | 1313.194 | 1821.446 |
| 4 | 438 | 0.064 | 0.001 | 0.282 | 4.70E-05 | -0.963 | -5.513 | 1277.340 | 1771.050 |
| 5 | 439 | 0.114 | 0.002 | 0.282 | 5.60E-05 | -0.936 | -7.205 | 1367.720 | 1878.370 |
| 6 | 436 | 0.083 | 0.002 | 0.282 | 3.30E-05 | -0.951 | -7.589 | 1367.432 | 1900.525 |
| 7 | 429 | 0.063 | 0.001 | 0.282 | 3.50E-05 | -0.963 | -6.176 | 1295.906 | 1806.165 |
| 8 | 452 | 0.140 | 0.003 | 0.282 | 6.50E-05 | -0.921 | -8.374 | 1439.432 | 1961.765 |
| 9 | 431 | 0.072 | 0.001 | 0.282 | 3.30E-05 | -0.957 | -5.761 | 1285.796 | 1781.371 |
| 10 | 441 | 0.097 | 0.002 | 0.282 | 3.30E-05 | -0.946 | -5.414 | 1288.475 | 1766.867 |
| 11 | 621 | 0.070 | 0.001 | 0.282 | 3.30E-05 | -0.960 | -5.109 | 1418.028 | 1883.944 |
| 12 | 448 | 0.125 | 0.002 | 0.282 | 6.70E-05 | -0.929 | -6.300 | 1343.665 | 1827.975 |
| 13 | 429 | 0.109 | 0.002 | 0.282 | 4.50E-05 | -0.939 | -6.613 | 1332.597 | 1833.514 |
| 14 | 430 | 0.103 | 0.002 | 0.282 | 4.20E-05 | -0.941 | -4.749 | 1255.732 | 1716.476 |
| **Sample: MLP133-Q14** | | | | | | | | | |
| 1 | 425 | 0.069 | 0.001 | 0.283 | 3.00E-05 | -0.968 | 5.985 | 804.761 | 1031.089 |
| 2 | 422 | 0.090 | 0.001 | 0.283 | 4.30E-05 | -0.958 | 10.686 | 615.674 | 728.408 |
| 3 | 412 | 0.048 | 0.001 | 0.283 | 2.90E-05 | -0.970 | -0.225 | 1040.214 | 1416.358 |
| 4 | 419 | 0.065 | 0.001 | 0.283 | 3.50E-05 | -0.970 | 2.436 | 940.295 | 1252.558 |
| 5 | 426 | 0.049 | 0.001 | 0.283 | 2.70E-05 | -0.977 | 1.622 | 975.597 | 1309.703 |
| 6 | 414 | 0.050 | 0.001 | 0.282 | 2.70E-05 | -0.972 | -9.457 | 1405.326 | 2002.075 |
| 7 | 422 | 0.081 | 0.001 | 0.282 | 4.20E-05 | -0.960 | -8.688 | 1392.257 | 1959.426 |
| 8 | 428 | 0.054 | 0.001 | 0.282 | 2.90E-05 | -0.974 | -3.610 | 1185.761 | 1643.133 |
| 9 | 625 | 0.063 | 0.001 | 0.282 | 3.70E-05 | -0.964 | -6.299 | 1465.825 | 1961.944 |
| 10 | 418 | 0.071 | 0.001 | 0.282 | 3.60E-05 | -0.963 | -2.681 | 1147.189 | 1576.633 |
| 11 | 416 | 0.083 | 0.001 | 0.282 | 2.90E-05 | -0.958 | -4.455 | 1220.157 | 1687.448 |
| 12 | 415 | 0.047 | 0.001 | 0.282 | 3.00E-05 | -0.976 | -5.701 | 1255.461 | 1765.633 |
| 13 | 539 | 0.106 | 0.002 | 0.282 | 4.10E-05 | -0.935 | -12.247 | 1656.765 | 2270.789 |