**Supplementary table 5** Dating results of 40Ar-39Ar plateau ages for muscovite from meta-sedimentary rocks of the Wuguan Complex

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Temp(℃) | 40Ar/39Ar | 36Ar/39Ar | 37Ar/39Ar | 40Ar\*/39Ark | 39Ar(×10-8ccSTP) | 39Ar (%) | 40Ar\* | Age (Ma) | Error (1σ, Ma) |
| Sample XS004, Wt=0.0237g, J=0.001663 |
| 750 | 146.442 | 0.276 | 0.127 | 64.986 | 0.031 | 0.39 | 45.10 | 185.13 | 4.65 |
| 850 | 119.196 | 0.122 | 0.071 | 83.068 | 0.143 | 1.82 | 70.08 | 233.43 | 3.23 |
| 930 | 103.860 | 0.051 | 0.005 | 88.743 | 0.379 | 4.84 | 85.63 | 248.33 | 3.32 |
| 980 | 94.490 | 0.021 | 0.019 | 88.426 | 0.649 | 8.28 | 93.66 | 247.50 | 3.29 |
| 1020 | 94.773 | 0.023 | 0.006 | 88.114 | 1.595 | 20.35 | 93.07 | 246.68 | 3.27 |
| 1060 | 89.997 | 0.008 | 0.009 | 87.697 | 1.217 | 15.52 | 97.48 | 245.59 | 3.25 |
| 1100 | 92.368 | 0.015 | 0.007 | 87.794 | 0.707 | 9.02 | 95.11 | 245.85 | 3.27 |
| 1140 | 97.215 | 0.031 | 0.010 | 88.115 | 0.407 | 5.19 | 90.76 | 246.69 | 3.28 |
| 1180 | 97.569 | 0.032 | 0.026 | 87.984 | 0.536 | 6.84 | 90.30 | 246.35 | 3.28 |
| 1220 | 92.606 | 0.016 | 0.011 | 87.988 | 0.976 | 12.45 | 95.08 | 246.36 | 3.26 |
| 1260 | 90.209 | 0.007 | 0.012 | 88.002 | 1.113 | 14.20 | 97.58 | 246.39 | 2.31 |
| 1300 | 180.966 | 0.293 | 0.792 | 94.491 | 0.012 | 0.15 | 52.81 | 263.29 | 19.25 |
| 1350 | 610.128 | 1.667 | 0.894 | 117.648 | 0.002 | 0.03 | 20.32 | 322.35 | 210.52 |
| 1400 | 611.194 | 0.248 | 0.000 | 537.770 | 0.072 | 0.92 | 88.14 | 1152.50 | 8.52 |
| Sample XS27, Wt=0.0306g, J=0.001659 |
| 750 | 278.977 | 0.670 | 0.075 | 80.944 | 0.025 | 0.23 | 29.94 | 227.31 | 9.57 |
| 850 | 29.895 | 0.083 | 0.088 | 5.478 | 0.113 | 1.03 | 19.39 | 16.32 | 0.51 |
| 930 | 100.151 | 0.037 | 0.006 | 89.295 | 0.419 | 3.82 | 89.30 | 249.21 | 4.14 |
| 980 | 93.064 | 0.015 | 0.012 | 88.499 | 1.374 | 12.55 | 95.16 | 247.14 | 3.27 |
| 1020 | 89.470 | 0.004 | 0.009 | 88.343 | 3.179 | 29.03 | 98.76 | 246.73 | 3.27 |
| 1060 | 89.779 | 0.005 | 0.002 | 88.189 | 2.013 | 18.39 | 98.25 | 246.33 | 3.28 |
| 1100 | 91.432 | 0.012 | 0.010 | 87.794 | 0.626 | 5.72 | 96.07 | 245.29 | 3.31 |
| 1140 | 93.146 | 0.017 | 0.019 | 88.021 | 0.436 | 3.98 | 94.57 | 245.89 | 3.27 |
| 1180 | 90.738 | 0.008 | 0.010 | 88.397 | 1.194 | 10.91 | 97.45 | 246.87 | 3.27 |
| 1220 | 89.711 | 0.004 | 0.000 | 88.416 | 1.160 | 10.59 | 98.58 | 246.92 | 3.27 |
| 1260 | 90.930 | 0.009 | 0.062 | 88.181 | 0.305 | 2.79 | 97.01 | 246.30 | 2.42 |
| 1300 | 103.357 | 0.043 | 0.075 | 90.602 | 0.062 | 0.57 | 87.81 | 252.61 | 3.30 |
| 1350 | 130.889 | 0.137 | 0.146 | 90.394 | 0.028 | 0.25 | 69.46 | 252.07 | 7.59 |
| 1400 | 161.298 | 0.256 | 0.000 | 85.617 | 0.016 | 0.15 | 53.69 | 239.60 | 2.24 |
| Sample XN8, Wt=0.0156g, J=0.001655 |
| 750 | 150.672 | 0.282 | 0.233 | 67.449 | 0.012 | 0.23 | 45.48 | 190.91 | 12.25 |
| 850 | 193.975 | 0.356 | 0.030 | 88.904 | 0.071 | 1.33 | 46.54 | 247.63 | 3.79 |
| 930 | 117.676 | 0.087 | 0.041 | 91.933 | 0.272 | 5.11 | 78.41 | 255.50 | 3.42 |
| 980 | 103.395 | 0.042 | 0.015 | 90.880 | 0.979 | 18.40 | 88.05 | 252.77 | 3.34 |
| 1020 | 93.065 | 0.013 | 0.013 | 89.178 | 1.180 | 22.18 | 95.88 | 248.35 | 3.29 |
| 1060 | 92.701 | 0.012 | 0.005 | 89.123 | 0.701 | 13.16 | 96.19 | 248.20 | 3.29 |
| 1100 | 98.052 | 0.031 | 0.032 | 88.891 | 0.292 | 5.50 | 90.78 | 247.60 | 3.32 |
| 1140 | 100.322 | 0.037 | 0.007 | 89.480 | 0.329 | 6.17 | 89.33 | 249.13 | 3.31 |
| 1180 | 95.934 | 0.023 | 0.025 | 89.236 | 0.564 | 10.59 | 93.11 | 248.50 | 3.29 |
| 1220 | 94.413 | 0.018 | 0.003 | 89.180 | 0.613 | 11.51 | 94.53 | 248.35 | 3.30 |
| 1260 | 94.051 | 0.018 | 0.208 | 88.879 | 0.288 | 5.42 | 94.56 | 247.57 | 2.35 |
| 1300 | 165.853 | 0.265 | 0.006 | 87.468 | 0.014 | 0.27 | 53.36 | 243.89 | 16.67 |
| 1350 | 385.064 | 0.917 | 1.221 | 114.283 | 0.005 | 0.09 | 30.57 | 312.50 | 71.45 |
| 1400 | 824.742 | 2.615 | 0.000 | 51.930 | 0.002 | 0.05 | 7.52 | 148.74 | 1.43 |