

APPENDIX 1

⁴⁰Ar/³⁹Ar analytical data from step-heating experiments

| Parczew IG 7 [Run ID# 2061-02 (J = 0.0034203 ± 3.500000e-6)]: | | | | | | | | | | | | | | | |
|---|----------|----------|------------------------------------|---------------------------------|------------------------------------|----------------------|-------------|----------|---------------------|-----------|--------------|------------|----------|----------|----------|
| Step | Ca/K | Cl/K | ³⁶ Ar/ ³⁹ Ar | % ³⁶ Ar(Ca) | ⁴⁰ Ar/ ³⁹ Ar | Mol ³⁹ Ar | % Step | Cum. % | % ⁴⁰ Ar* | Age [Ma] | ±Age [Ma] | | | | |
| A. | 2.9817 | 0.002 | 0.029524 | 1.2 | 55.87991 | 0.1435 | 1.6 | 1.6 | 86.6 | 315.53151 | 1.5234 | | | | |
| B. | 2.8591 | 0.00111 | 0.022069 | 1.5 | 59.95871 | 0.1515 | 1.7 | 3.3 | 90.3 | 336.53848 | 1.4428 | | | | |
| C. | 2.8066 | 0.00123 | 0.015504 | 2.1 | 60.43434 | 0.2158 | 2.4 | 5.7 | 93.1 | 338.97224 | 1.0791 | | | | |
| D. | 2.5513 | 0.00064 | 0.011284 | 2.6 | 61.35777 | 0.3143 | 3.5 | 9.2 | 95 | 343.68806 | 0.8943 | | | | |
| E. | 2.2400 | 0.00045 | 0.007455 | 3.5 | 61.4861 | 0.4058 | 4.5 | 13.7 | 96.7 | 344.34244 | 0.6858 | | | | |
| F. | 1.7902 | 0.00072 | 0.005819 | 3.6 | 61.57389 | 0.5596 | 6.2 | 19.9 | 97.4 | 344.78997 | 0.65 | | | | |
| • G. | 1.8353 | 0.00105 | 0.003809 | 5.6 | 62.22091 | 0.7524 | 8.4 | 28.3 | 98.3 | 348.08482 | 0.4586 | | | | |
| • H. | 1.9447 | 0.00098 | 0.002963 | 7.6 | 62.20318 | 0.6024 | 6.7 | 35 | 98.7 | 347.99463 | 0.6004 | | | | |
| • I. | 2.0231 | 0.0008 | 0.003079 | 7.6 | 62.34392 | 0.7729 | 8.6 | 43.6 | 98.7 | 348.71059 | 0.5341 | | | | |
| • J. | 2.1572 | 0.0003 | 0.002007 | 12.5 | 62.38374 | 0.7471 | 8.3 | 51.9 | 99.2 | 348.91307 | 0.5452 | | | | |
| • K. | 2.1965 | 0.0005 | 0.001445 | 17.7 | 62.28997 | 0.9269 | 10.3 | 62.2 | 99.4 | 348.43618 | 0.4840 | | | | |
| • L. | 2.4089 | 0.00033 | 0.001461 | 19.2 | 62.10361 | 0.9131 | 10.2 | 72.4 | 99.4 | 347.48794 | 0.4475 | | | | |
| • M. | 2.5671 | 0.00036 | 0.001328 | 22.5 | 61.89583 | 0.6767 | 7.5 | 79.9 | 99.5 | 346.43013 | 0.5021 | | | | |
| • N. | 2.2779 | 0.00096 | 0.001754 | 15.1 | 62.0402 | 0.6232 | 6.9 | 86.9 | 99.3 | 347.1652 | 0.5025 | | | | |
| • O. | 2.4955 | 0.00067 | 0.000966 | 30.1 | 61.81314 | 0.6778 | 7.5 | 94.4 | 99.7 | 346.00903 | 0.5227 | | | | |
| • P. | 3.1051 | 0.00036 | 0.001851 | 19.5 | 61.63611 | 0.503 | 5.6 | 100 | 99.3 | 345.10705 | 0.5264 | | | | |
| Integral age = | | | | | | | | | | 346.2 | 0.8 | | | | |
| (•)Plateau age = | | | | MSWD = 1.1, ρ = 0.35, steps G-L | | | 52.5 | | | | 348.2 | 0.8 | | | |
| Parczew IG 9 (Run ID# 2054-02 (J = 0.0033615 ± 3.600000e-6)): | | | | | | | | | | | | | | | |
| A. | B. | C. | D. | E. | F. | G. | H. | • I. | • J. | • K. | • L. | • M. | • N. | O. | P. |
| 4.6584 | 4.2147 | 3.3068 | 2.9293 | 2.8332 | 2.6930 | 2.7485 | 2.8718 | 2.8860 | 3.2705 | 3.2789 | 3.6343 | 3.8804 | 4.60803 | 5.80636 | 6.2101 |
| 0.00895 | 0.00214 | 0.00126 | 0.00012 | 0.00006 | 0.00006 | 0.00019 | 0.00055 | 0.00001 | 0.00004 | 0.00048 | 0.00061 | 0.00126 | 0.00271 | 0.00176 | 0.0041 |
| 0.097917 | 0.053293 | 0.031182 | 0.021915 | 0.016376 | 0.010977 | 0.007064 | 0.004214 | 0.003213 | 0.002456 | 0.002144 | 0.002146 | 0.002156 | 0.002183 | 0.001514 | 0.000911 |
| 0.6 | 0.9 | 1.2 | 1.6 | 2.0 | 2.9 | 4.5 | 7.9 | 10.5 | 15.5 | 17.8 | 19.7 | 21 | 24.6 | 44.6 | 79.3 |
| 50.22776 | 59.33828 | 62.40035 | 64.25763 | 63.92175 | 63.94547 | 63.17807 | 62.26119 | 61.66558 | 61.36161 | 61.5012 | 61.32801 | 61.35683 | 61.25655 | 61.86354 | 60.70012 |
| 0.2251 | 0.3047 | 0.4208 | 0.6731 | 0.8019 | 1.3296 | 2.2503 | 2.4888 | 2.2792 | 2.9248 | 2.1775 | 1.4782 | 1.2534 | 0.9999 | 0.3992 | 0.1944 |
| 1.1 | 1.5 | 2.1 | 3.3 | 4.0 | 6.6 | 11.1 | 12.3 | 11.3 | 14.5 | 10.8 | 7.3 | 6.2 | 4.9 | 2.0 | 1.0 |
| 1.1 | 2.6 | 4.7 | 8.0 | 12.0 | 18.6 | 29.7 | 42.0 | 53.3 | 67.8 | 78.6 | 85.9 | 92.1 | 97.1 | 99.0 | 100.0 |
| 63.5 | 79.2 | 87.3 | 91 | 93.1 | 95.3 | 96.9 | 98.2 | 98.6 | 99 | 99.2 | 99.2 | 99.2 | 99.2 | 99.6 | 99.9 |
| 281.4583 | 328.1186 | 343.5342 | 352.8206 | 351.1447 | 351.2631 | 347.4286 | 342.8364 | 339.847 | 338.3195 | 339.0211 | 338.1506 | 338.2955 | 337.7913 | 340.8412 | 334.9909 |
| 1.5472 | 1.2209 | 0.7987 | 0.6297 | 0.5936 | 0.4083 | 0.4835 | 0.3597 | 0.6343 | 0.3903 | 0.3342 | 0.382 | 0.3931 | 0.54617 | 0.73708 | 1.09693 |
| Integral age = | | | | | | | | | | 341.3 | 0.8 | | | | |
| (•)Plateau age = | | | | MSWD = 2, ρ = 0.08, steps I-N | | | 55 | | | | 338.5 | 0.7 | | | |