J value: 0.016891 ± 0.000044

Integrated Age: 189.36 ± 1.57 Ma

Initial 40/36: 366.67 ± 35.21 (MSWD = 1.05, isochron between 0.50 and 2.00)

Correlation Age: 185.39 ± 0.99 Ma (95.3% of ^{39}Ar, steps marked by >) MSWD: 0.656

Plateau Age: 187.69 ± 0.73 Ma (82.2% of 39Ar, steps marked by <) Mod. Err. 1.55

Power	^{36}Ar/^{40}Ar	^{39}Ar/^{40}Ar	r	Ca/K	%^{40}Ar*	%^{39}Ar	^{40}Ar*/^{39}K	Age
1.90	0.003033 ± 0.000353	0.022929 ± 0.000742	0.008	12.829	89.56	0.30	4.52±4.56	132.8 ± 129.2
2.40	0.002027± 0.000171	0.061206 ± 0.000699	0.011	12.358	59.79	2.04	6.55 0.83	189.3 ± 22.8
2.80	0.001764 ± 0.000147	0.071438 ± 0.000849	0.007	9.833	52.00	2.33	6.70 0.62	193.5 ± 16.9
3.20>	0.001381± 0.000125	0.082460 ± 0.000845	0.009	7.376	40.71	3.05	7.18 0.46	206.4 ± 12.4
3.60>	0.000748 ± 0.000139	0.108498 ± 0.001016	0.003	10.559	21.99	3.02	7.18 0.39	206.6 ± 10.5
4.00>	0.000432± 0.000081	0.129322 ± 0.000948	0.002	16.896	12.62	7.05	6.75 0.19	194.9 ± 5.3
< 4.10>	0.000730± 0.000544	0.115146 ± 0.002206	-0.000	11.988	21.42	0.96	6.82 1.40	196.6 ± 38.4
< 4.40>	0.000177 ± 0.000045	0.144837 ± 0.000723	0.002	20.133	5.08	14.74	6.55 0.10	189.4 ± 2.7
< 4.60>	0.000130 ± 0.000044	0.147859 ± 0.000716	0.001	20.688	3.70	16.10	6.51 0.09	188.3 ± 2.6
< 4.80>	0.000167 ± 0.000057	0.146047 ± 0.000721	0.000	21.054	4.78	13.68	6.52 0.12	188.4 ± 3.3
< 5.00>	0.000352 ± 0.000136	0.140206 ± 0.001214	0.001	20.747	10.22	5.52	6.40 0.29	185.2 ± 8.0
< 5.30>	0.000156 ± 0.000042	0.148001 ± 0.000658	0.002	21.489	4.48	17.92	6.45 0.09	186.6 ± 2.5
< 5.60>	0.000221 ± 0.000062	0.145409 ± 0.000864	0.002	27.287	6.38	13.30	6.44 0.13	186.2 ± 3.6

Power	^{40}Ar	^{39}Ar	^{38}Ar	^{37}Ar	^{36}Ar	Blank ^{40}Ar	Atmos 40/36
1.90	44.865 ± 0.248	1.033 ± 0.033	0.082 ± 0.021	7.207±0.250	0.138 ± 0.016	6.669	291.806
2.40	115.214 ± 0.380	7.072 ± 0.076	0.236 ± 0.027	47.532 ± 0.611	0.246 ± 0.020	6.736	291.806
2.80	112.982 ± 0.308	8.084 ± 0.093	0.219 ± 0.023	43.274 ± 0.514	0.211 ± 0.017	6.754	291.806
3.20>	128.601 ± 0.377	10.608 ± 0.103	0.378 ± 0.027	42.634 ± 0.526	0.189 ± 0.016	6.657	291.806
3.60>	96.559 ± 0.329	10.485 ± 0.089	1.075 ± 0.042	60.248 ± 0.614	0.089 ± 0.013	6.674	291.806
4.00>	188.944 ± 0.416	24.498 ± 0.169	4.679 ± 0.077	224.725 ± 1.534	0.144 ± 0.015	6.739	291.806
< 4.10>	28.811 ± 0.245	3.321 ± 0.054	0.509 ± 0.033	21.657 ± 0.388	0.027 ± 0.016	6.756	291.806
< 4.40>	352.195 ± 0.680	51.183 ± 0.232	10.713 ± 0.123	558.766 ± 3.333	0.218 ± 0.016	6.753	291.806
< 4.60>	376.955 ± 0.622	55.931 ± 0.251	11.611 ± 0.124	627.304 ± 3.718	0.224 ± 0.017	6.660	291.806
< 4.80>	324.018 ± 0.634	47.497 ± 0.211	9.714 ± 0.146	542.046 ± 3.272	0.205 ± 0.018	6.754	291.806
< 5.00>	136.279 ± 0.428	19.179 ± 0.152	3.853 ± 0.072	215.708 ± 1.536	0.108 ± 0.018	6.790	291.806
< 5.30>	418.918 ± 0.634	62.236 ± 0.256	12.370 ± 0.133	724.818 ± 4.254	0.268 ± 0.018	6.728	291.806
< 5.60>	315.747 ± 0.626	46.193 ± 0.254	9.195 ± 0.110	681.605 ± 4.270	0.260 ± 0.019	7.036	291.806

Table 1ap: ^{40}Ar/^{39}Ar results of sample T0. First line: Can irradiation J value. Second line: total gas age (integrated age). Third through fifth line: correlation (multi-point isochron) and plateau ages, with corresponding volume of ^{39}Ar used in selected analysis steps. Remaining data table corresponds to Ar and K isotope measurements and age calculations for individual steps. %^{40}Ar=x.x% of released gas composed of radiogenic ^{40}Ar, %^{39}Ar=proportion total ^{39}Ar released, Atmos40/36=atmospheric ^{40}Ar/^{36}Ar during course of experiment.

J = 0.00042668 ± 0.0000093

Integrated age: 179 ± 9 Ma

Initial 40/36: 292.00 ± 10 (MSWD = 1.1)

Correlation age (isochron age, steps B-O): 182 ± 10 Ma

Plateau age (steps C-O): 184 ± 5 Ma

Step ID	Temperature	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	^{39}ArK (x 10^{-16} mol)	K/Ca	$^{40}Ar^{*}$ (%)	^{39}Ar (%)	Age (Ma)	±1s (Ma)
B	500	613	17.17243	1.643486	0.03	0.0297	21.0	3.5	97.6	25.17
C	600	351	5.412219	0.4308	0.04	0.0943	63.9	5.3	165.6	15.56
D	650	734	5.949677	17,255	0.03	0.0858	30.6	3.5	165.5	24.90
E	700	258	3.608555	0.1503	0.02	0.1414	82.9	2.8	158.3	29.64
F	750	221	2.417764	0.0002	0.02	0.2110	100.1	2.1	163.2	39.54
G	800	248	5.190655	0.0783	0.01	0.0983	90.8	1.5	165.9	56.39
H	850	329	3.134982	0.5478	0.01	0.1627	50.8	1.0	124.4	88.37
I	900	336	4.233211	0.3438	0.01	0.1205	69.9	1.5	172.7	57.93
J	950	295	6.140134	0.1631	0.03	0.0831	83.8	3.5	181.4	24.65
K	1000	269	9.485056	0.0562	0.23	0.0538	94.1	28.1	185.9	3.29
L	1050	1634.418	9.22974	47	0.34	0.0553	15.7	40.9	188.3	16.25
M	1100	594.9427	9.015016	12	0.01	0.0566	40.3	0.8	176.6	240.55
N	1150	260.1745	8.747064	0.1077	0.02	0.0583	88.0	2.3	169.2	87.16
O	1200	257.7023	9.37519	0.0890	0.03	0.0544	90.1	3.3	171.5	62.07

Table 2ap: $^{40}Ar/^{39}Ar$ results of sample T1-A. The first 5 lines are the same that Table 1. Explanation: Isotopic ratios corrected for blank, radioactive decay, mass discrimination, and interferring reactions. Individual analyses show analytical error only; plateau and total gas age errors include error in J and irradiation parameters (all at one sigma). n= number of heating steps. $^{39}Ar/K$ is the amount of ^{39}ArK (moles) released for each single analysis (heating step). K/Ca = molar ratio calculated from reactor produced ^{39}ArK and $^{37}ArCa$.

J = 0.001536 ± 0.15%

Integrated age: 180.3 ± 0.7 Ma

Initial 40/36: 281 ± 29 (MSWD = 0.08)

Correlation age (isochron age, steps 15-17): 182.8 ± 2.5 Ma

Plateau age (steps 17 to 17): 181.6 ± 0.7 Ma

step	T (C)	t (min.)	^{36}Ar	^{37}Ar	^{38}Ar	^{39}Ar	^{40}Ar	%40Ar*	% ^{39}Ar rlsd	Ca/K	$^{40}Ar^{*}/^{39}ArK$	Age (My)
1	850	12	2.221	2.630	0.626	9.639	1280.89	48.7617594	7.600	1.6638293500	64.798	171.177
2	940	12	0.142	1.062	0.102	1.713	161.551	74.0261589	1.3	3.782858672	69.813	183.773
3	980	12	0.082	1.035	0.102	1.129	98.746	75.4612845	0.9	5.5966557274	66.001	174.207
4	1000	12	0.071	1.093	0.099	0.931	86.127	75.6400432	0.700	7.1705335063	69.975	184.177
5	1020	12	0.079	2.496	0.165	1.357	116.634	79.9848243	1.1	11.247611155	68.747	181.102
6	1040	12	0.13	6.769	0.395	2.464	205.514	81.3078428	1.9	16.826060503	67.816	178.768
7	1060	12	0.378	41.322	2.223	11.366	892.547	87.4853649	8.9	22.302907416	68.700	180.986
8	1070	12	0.200	22.265	1.207	6.451	501.510	88.2155889	5.1	21.166083162	68.580	180.684
9	1080	12	0.146	15.192	0.793	4.557	353.139	87.7829976	3.6	20.440404348	68.026	179.296
10	1090	12	0.212	24.980	1.249	6.465	500.422	87.4813657	5.1	23.713135341	67.715	178.514
11	1100	12	0.239	31.276	1.488	7.851	608.601	88.3955991	6.2	24.453687946	68.523	180.542
12	1110	12	0.230	23.400	1.120	6.053	484.373	85.9684582	4.8	23.725304119	68.794	181.220
13	1120	12	0.137	11.937	0.601	3.344	267.454	84.8633784	2.6	21.896039377	67.874	178.913
14	1140	12	0.210	28.573	1.196	7.822	600.193	89.6608258	6.2	22.409866921	68.798	181.231
15	1170	12	0.583	96.619	4.771	24.144	1838.46	90.6293039	19	24.565494072	69.010	181.762
16	1220	12	0.747	114.844	5.680	27.600	2128.49	89.6293382	21.7	25.550248764	69.121	182.041
17	1400	12	0.266	17.156	0.859	4.152	363.018	78.3473547	3.3	25.370676033	68.501	180.485

step	$^{36}Ar/^{40}Ar$	$^{36}Ar/^{40}Ar$ err	$^{39}Ar/^{40}Ar$	$^{39}Ar/^{40}Ar$err	R^2
1	0.001733951	0.455	0.007525236	0.459251316	0.018
2	0.000878979	3.419	0.010603463	0.446773943	0.000
3	0.000830413	3.723	0.011433375	0.435825072	0.072
4	0.000824364	15.901	0.010809618	0.515224314	0.001
5	0.000677333	4.125	0.011634686	0.443608952	0.109
6	0.00063256	1.362	0.011989451	0.474474451	0.001
7	0.000423507	0.629	0.012734343	0.431206385	0.091
8	0.000398796	0.688	0.012863153	0.494623715	0.279
9	0.000413435	1.179	0.012904267	0.623402601	0.184
10	0.000423642	0.867	0.012919096	0.568989257	0.269
11	0.000392704	0.645	0.012900077	0.454426808	0.717
12	0.000474841	0.850	0.012496568	0.455930496	0.196
13	0.000512238	2.975	0.012503085	0.531943743	0.144
14	0.000349887	1.393	0.013032475	0.453879701	0.193
15	0.000317113	0.655	0.013132731	0.431047788	0.000
16	0.000350953	0.556	0.012966939	0.435832591	0.129
17	0.000732746	1.843	0.011437449	0.584529052	0.042

Table 3ap: $^{40}Ar/^{39}Ar$ results of sample T1-N. The first 5 lines are the same that Table 1. Explanation: isotope beams in mV, rlsd = released, error in age includes J error, all errors 1 sigma (36Ar through 40Ar are measured beam intensities, corrected for decay for the age calculations). 4 amu discrimination = 1.0565 ± 0.43%, 40/39K = 0.01738 ± 67.07%, 36/37Ca = 0.0002157 ± 8.78%, 39/37Ca = 0.0006702 ± 1.60%