Data Repository Item

Exhumation of the Orocopia Schist and associated rocks of southeastern California: Relative roles of erosion, synsubduction tectonic denudation, and middle Cenozoic extension

Carl E. Jacobson, Marty Grove, Ana Vucic, Jane N. Pedrick, and Kristin A. Ebert

ROCK TYPES OF THE UPPER PLATE OF THE OROCOPIA MOUNTAINS DETACHMENT FAULT

Rocks of the upper plate of the Orocopia Mountains detachment fault have been described in detail by Crowell and Walker (1962) and to lesser degree by Crowell (1962, 1975), Haxel et al. (1988), Jacobson and Dawson (1995), and Robinson and Frost (1996). Crowell and Walker (1962) divided rocks of the upper plate of the OMDF into five lithologic groups: (1) Proterozoic felsic to mafic gneiss (including amphibolite); (2) Proterozoic anorthosite to gabbro/diorite and associated mafic dikes and segregations; (3) Proterozoic syenite to alkali granite; (4) Mesozoic leucogranite (their alaskite) and related intrusives; and (5) other rocks (mostly Cenozoic hypabyssal and volcanic units). These rocks are thought to be offset from equivalent units in the San Gabriel Mountains by the San Andreas fault (Crowell, 1962; Crowell and Walker, 1962). Below we provide descriptions of rocks from groups 1-4 which supplement the observations presented by previous workers.

Gneiss and amphibolite

These are the oldest rocks within the upper plate of the Orocopia Mountains detachment fault and likely correlate with similar units in the eastern Transverse Ranges and San Gabriel Mountains (Ehlig, 1981; Powell, 1981, 1993; Barth et al., 1995). They are most abundant in the leucogranite-gneiss unit. Quartzofeldspathic varieties are characterized by quartz + plagioclase > biotite ± K-feldspar ± hornblende. Amphibolites are composed dominantly of subequal amounts of plagioclase and hornblende. The amphibolites commonly include several percent quartz and biotite, suggestive of a dioritic as opposed to basaltic protolith. Intermediate gneiss shows a complete transition in composition between quartzofeldspathic gneiss and amphibolite. Jacobson and Dawson (1995) stated that epidote was widespread in the gneiss and amphibolite, and locally abundant in the amphibolite. Additional samples collected here confirm that epidote is widespread, but indicate that it generally is not abundant.

Crowell and Walker (1962) reported that quartz in the quartzofeldspathic gneiss is characteristically blue to violet in color, and suggested correlation with the Mendenhall gneiss of Oakeshott (1958) in the

San Gabriel Mountains. According to Barth et al. (1995), the Mendenhall gneiss is part of a larger gneiss terrane that underwent granulite-facies metamorphism in the contact aureole of the San Gabriel anorthosite. Indeed, in this study, we found that blue quartz was common within gneiss associated with anorthosite-syenite, but generally absent from that far-removed from the anorthosite-syenite.

Signs of relatively low-grade retrogression are virtually ubiquitous in the gneiss and amphibolite. Most characteristic is a cloudy appearance of plagioclase resulting from partial sericitization. Strong alteration of biotite to chlorite is also common. Less widespread is the replacement of hornblende by chlorite or actinolite.

The gneiss and amphibolite in the Orocopia Mountains are undated. Based on regional correlations, at least part of the protolith is probably ca. 1700 Ma in age and initial metamorphism likely occurred prior to intrusion of 1680 Ma plutons now typically converted to augen gneiss (Barth et al., 1995).

Anorthosite, gabbro, syenite, and related rocks

Anorthosite and related rocks in southern California were first described in the San Gabriel Mountains (references in Crowell and Walker [1962]). Recognition of similar units in the Orocopia Mountains provided one of the primary lines of evidence for large strike-slip displacement on the San Andreas fault (Crowell, 1962). In the part of the upper plate examined in this study, Crowell and Walker (1962) considered gabbro to diorite (differentiated based on color index as opposed to plagioclase composition) and rock transitional between gabbro/diorite and anorthosite to be abundant. However, we found mesoperthite and/or K-feldspar and biotite to be widespread in such rocks, suggesting that they belong to the jotunite to mangerite part of the anorthosite-syenite suite (e.g., Carter [1980, 1987]). Jotunite, mangerite, syenite, and quartz syenite (including that with blue quartz) together comprise the bulk of anorthosite-syenite unit in the northwest Orocopia Mountains.

Much of the mangerite to jotunite exhibits a particularly distinctive texture characterized by ~0.5 cm clots of biotite (with abundant included opaque and apatite) within a white matrix of feldspar. This is probably the “dappled” rock of Crowell and Walker (1962), which they took to be transitional between gabbro/diorite and anorthosite. The dappled rock ranges from massive to foliated and/or lineated and is present in both the leucogranite-gneiss and anorthosite-syenite units. Within some parts of the anorthosite-syenite suite, the feldspar is largely mesoperthite, although orthoclase or microcline and/or plagioclase are commonly present in addition. In other cases, however, mesoperthite is absent and plagioclase and K-feldspar are present entirely as separate phases.

Amphibolite is common in association with the anorthosite suite. It is distinct from that associated with the gneiss in that quartz is minor to absent, but opaque and apatite occur in amounts up to 10% each. Biotite schist with abundant opaque and apatite is also present.

Biotite within the various rock types of the anorthosite-syenite suite commonly shows only modest replacement by chlorite.

Silver et al. (1963) reported an age of ca. 1200 Ma for the anorthosite-syenite complex. Barth et al. (1995) obtained a similar age of 1190 Ma.

Leucogranite

This rock is equivalent to the “alaskite” of Crowell and Walker (1962). It occurs as small stocks and as dikes cross-cutting older units in the upper plate. Most intrusions lack any ductile fabric, but some dikes exhibit folds with axial planes parallel to foliation in the enclosing country rock. Composition is relatively uniform, consisting of subequal amounts of quartz, plagioclase, and microcline. Biotite content varies from minor to up to ~15%. Texture is equigranular to porphyritic (K-feldspar). Plagioclase is generally moderately sericitized and some grains are partly replaced by coarse flakes of muscovite. Much of the biotite, if not the majority, is altered to chlorite. Quartz is commonly undulose, but in only a few samples does it show a high degree of recrystallization to fine-grained polygonal aggregates.

The leucogranite is a major component of the leucogranite-gneiss unit. It is relatively uncommon within the anorthosite-syenite unit, where it tends to be concentrated along some contacts with the leucogranite-gneiss.

Crowell (1975) assumed a Mesozoic age for the leucogranite. Robinson and Frost (1996) inferred a

79 Ma age based on correlation with a similar unit in the Chocolate Mountains (dating technique not specified). Uranium-lead dating of zircon from the unit performed in this study implies a 76 Ma crystallization age.

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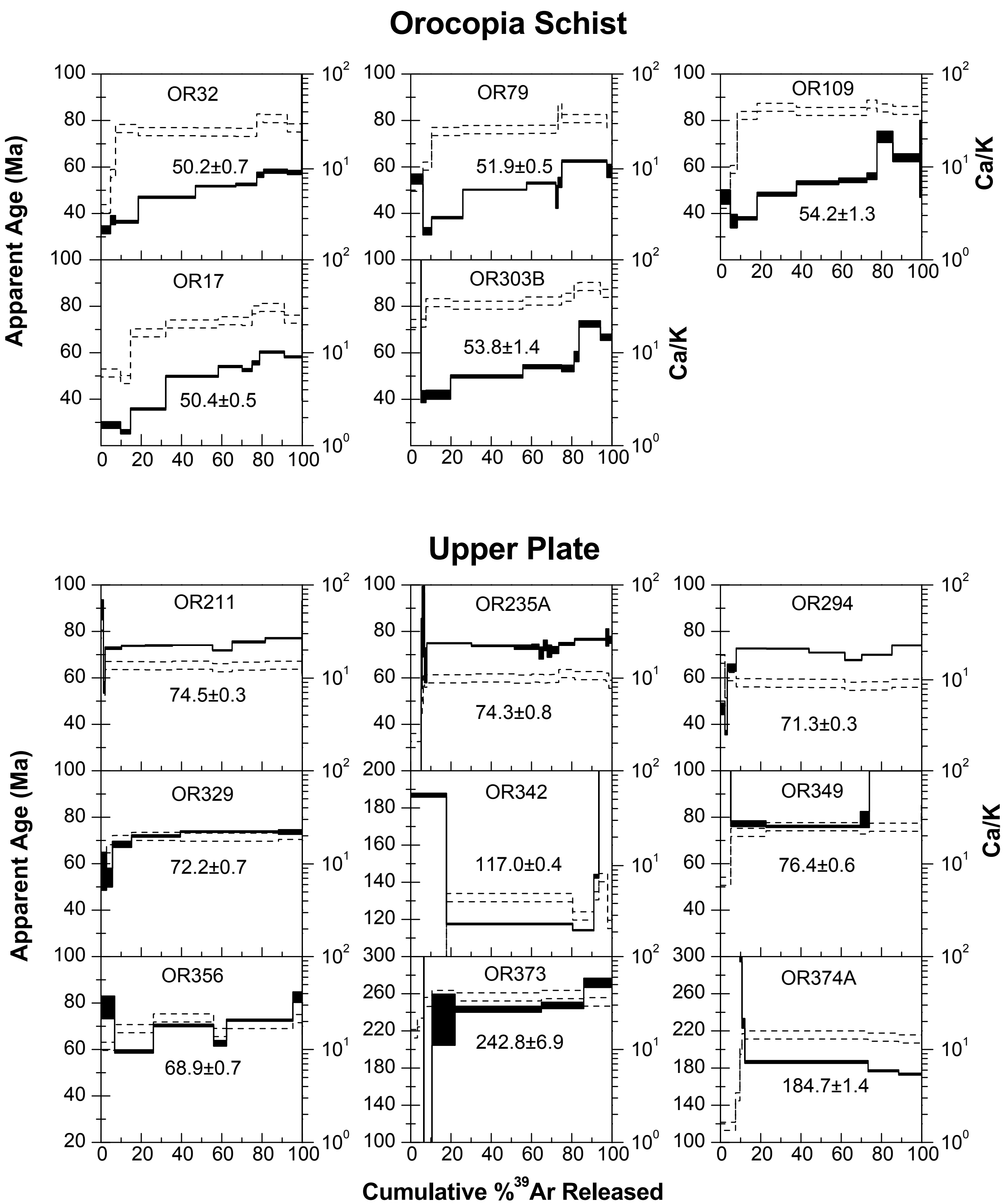
FIGURE CAPTIONS

Figure 1. Incremental argon release spectra (solid pattern) and Ca/K (dashed lines) for all hornblende samples analyzed in the study. Numeric values are total-gas ages (steps released at less than 950 °C are excluded). Errors shown are ± 1σ analytical uncertainties.

Figure 2. Incremental argon release spectra for all biotite and muscovite samples analyzed in the study. Numeric values are total-gas ages. Mylonites indicated by underlining of sample number. Two samples, OR178 and OR230B, are from Jacobson (1990). Errors shown are ± 1σ analytical uncertainties.

Figure 3. Multi-diffusion domain (MDD) model results for all K-feldspar samples. See Lovera et al. (1997) for procedures employed to extract thermal history information under the assumption of monotonic cooling. Top panel: Measured age spectrum and corresponding MDD model fits. Note that we have corrected the initial segment of the age spectrum for Cl-correlated excess ^{40}Ar ($^{40}Ar_E$; see Harrison et al., 1994). Middle panel: Measured Arrhenius parameters and MDD model fits. Bottom panel: Monotonic cooling histories corresponding to best-fit MDD age spectra shown in top panel.

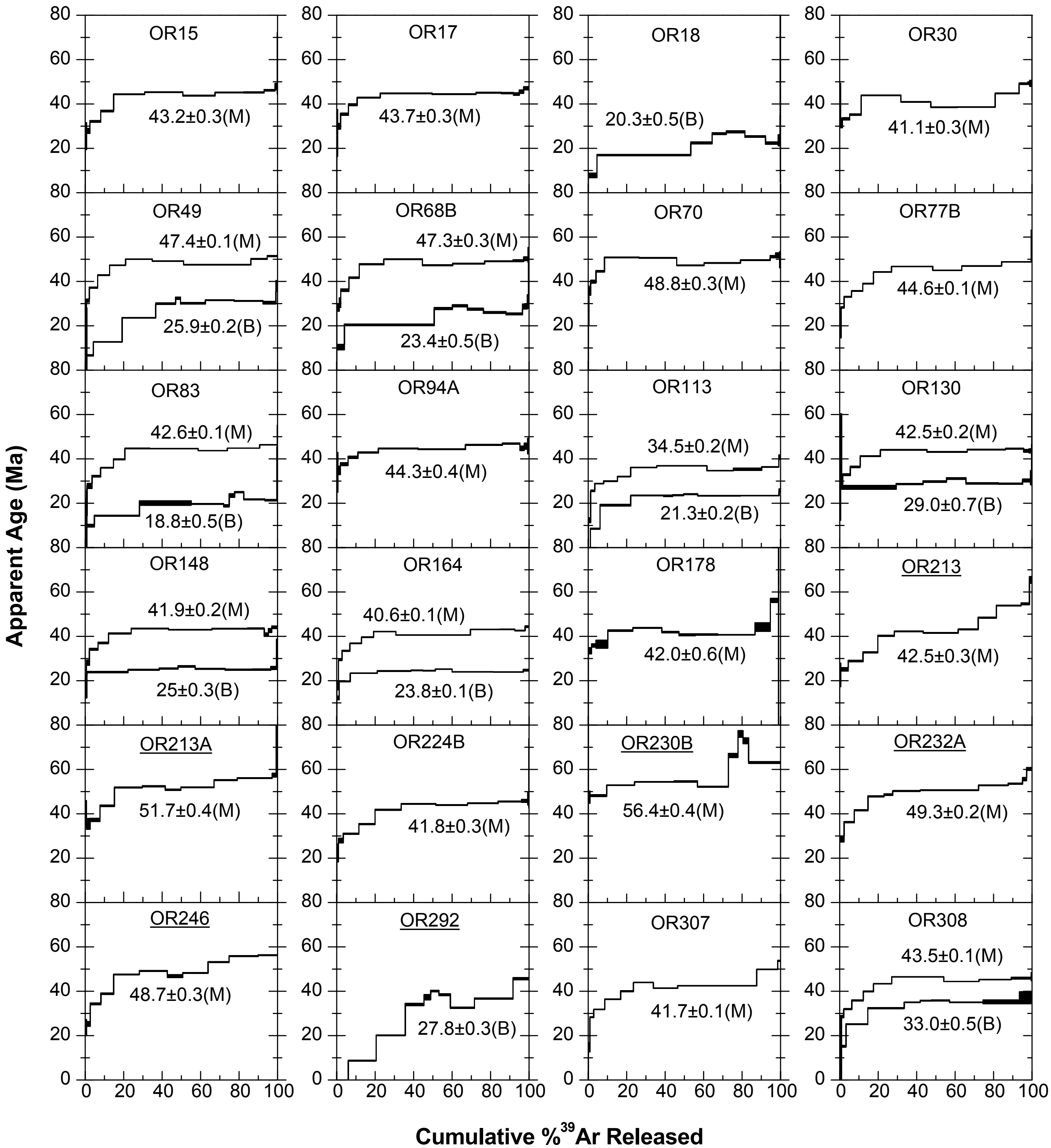
Orocopia Mountains - Hornblende



Data Repository Item - Figure 1

Orocopia Mountains - Biotite(B) and Muscovite(M)

Orocopia Schist



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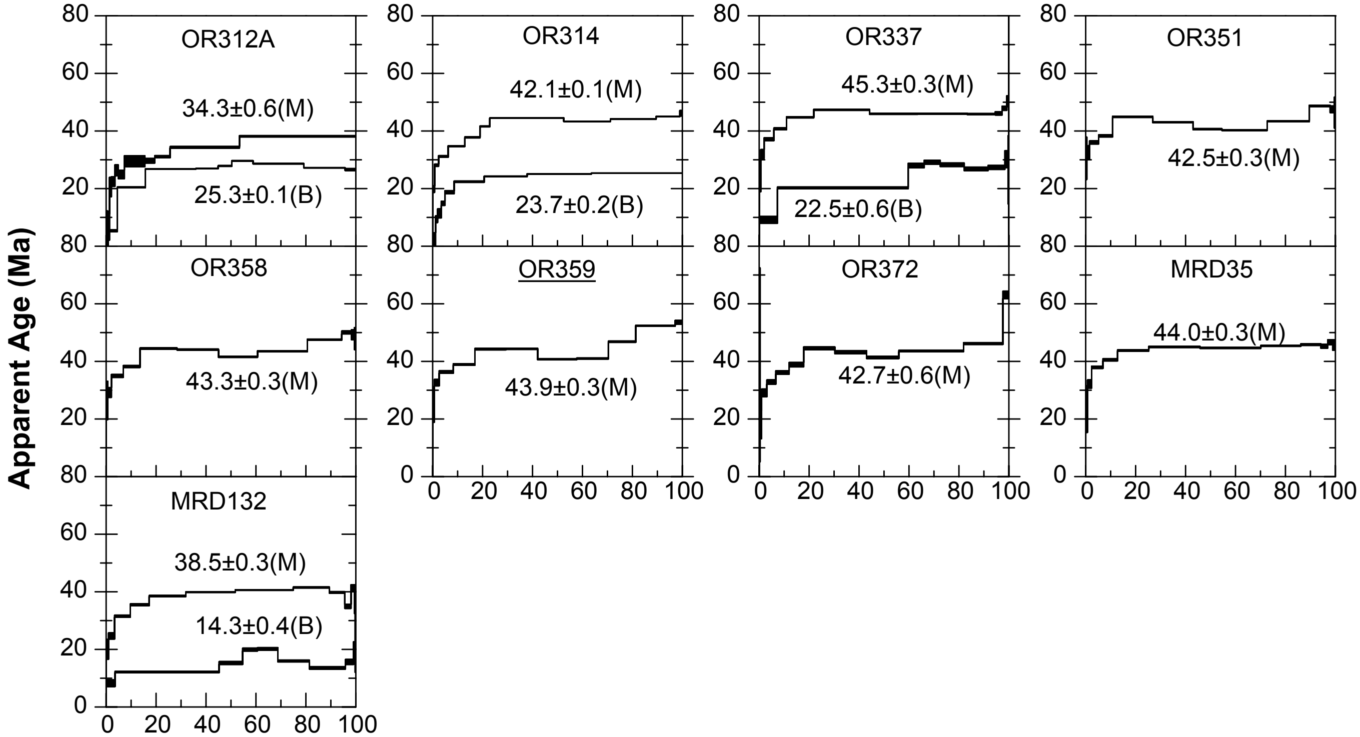
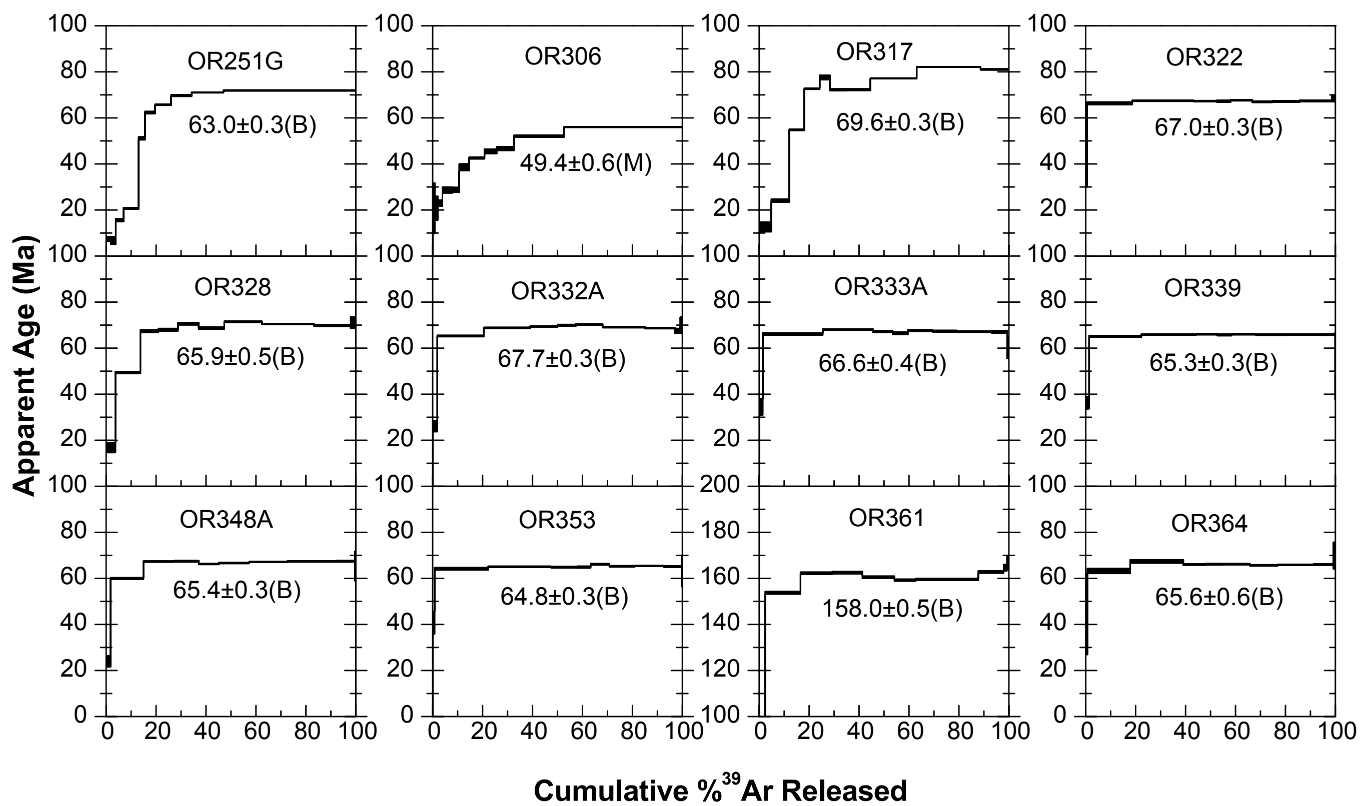
Orocopia Mountains - Biotite(B) and Muscovite(M)

Orocopia Schist



Upper Plate



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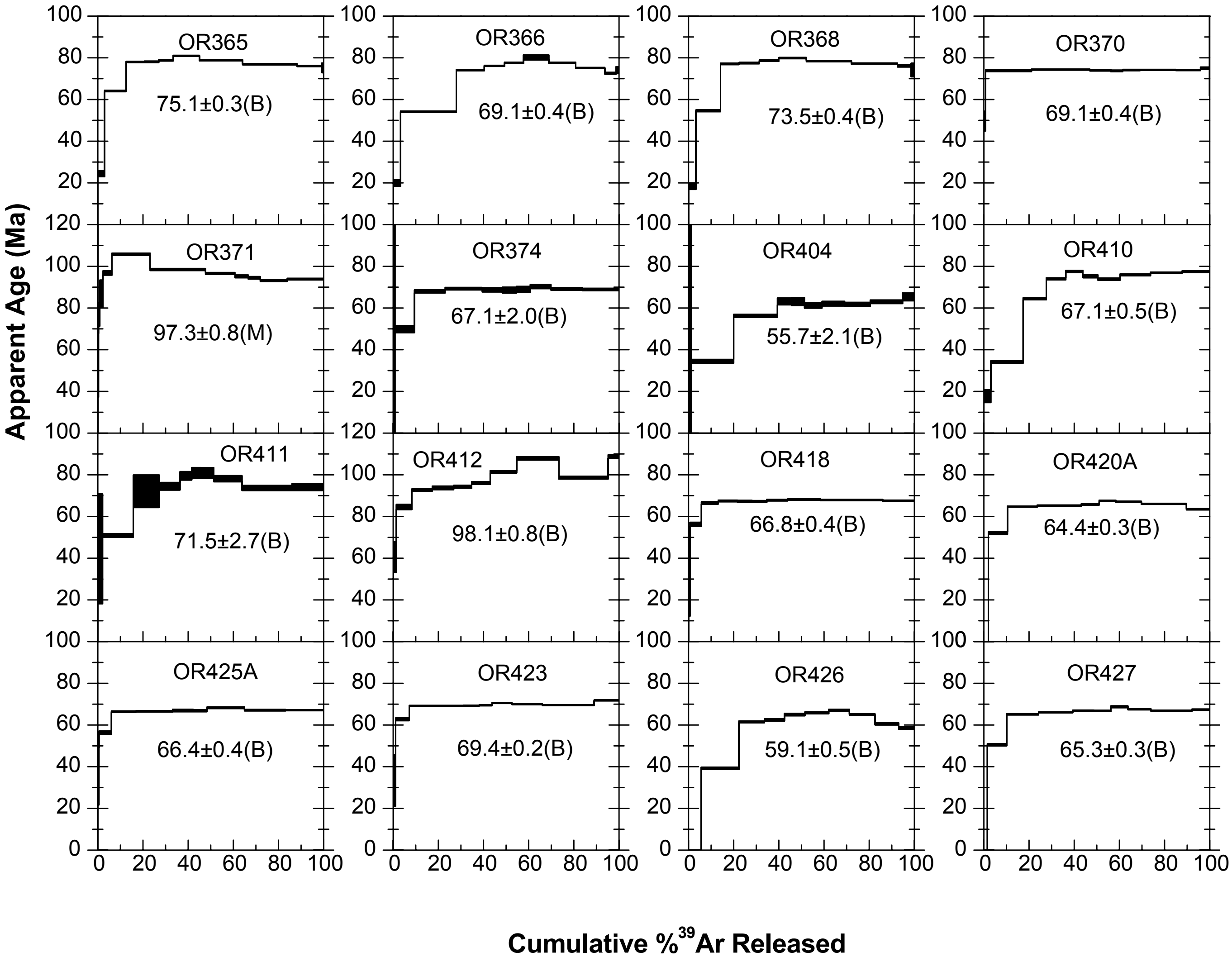
Orocopia Mountains - Biotite(B) and Muscovite(M)

Upper Plate



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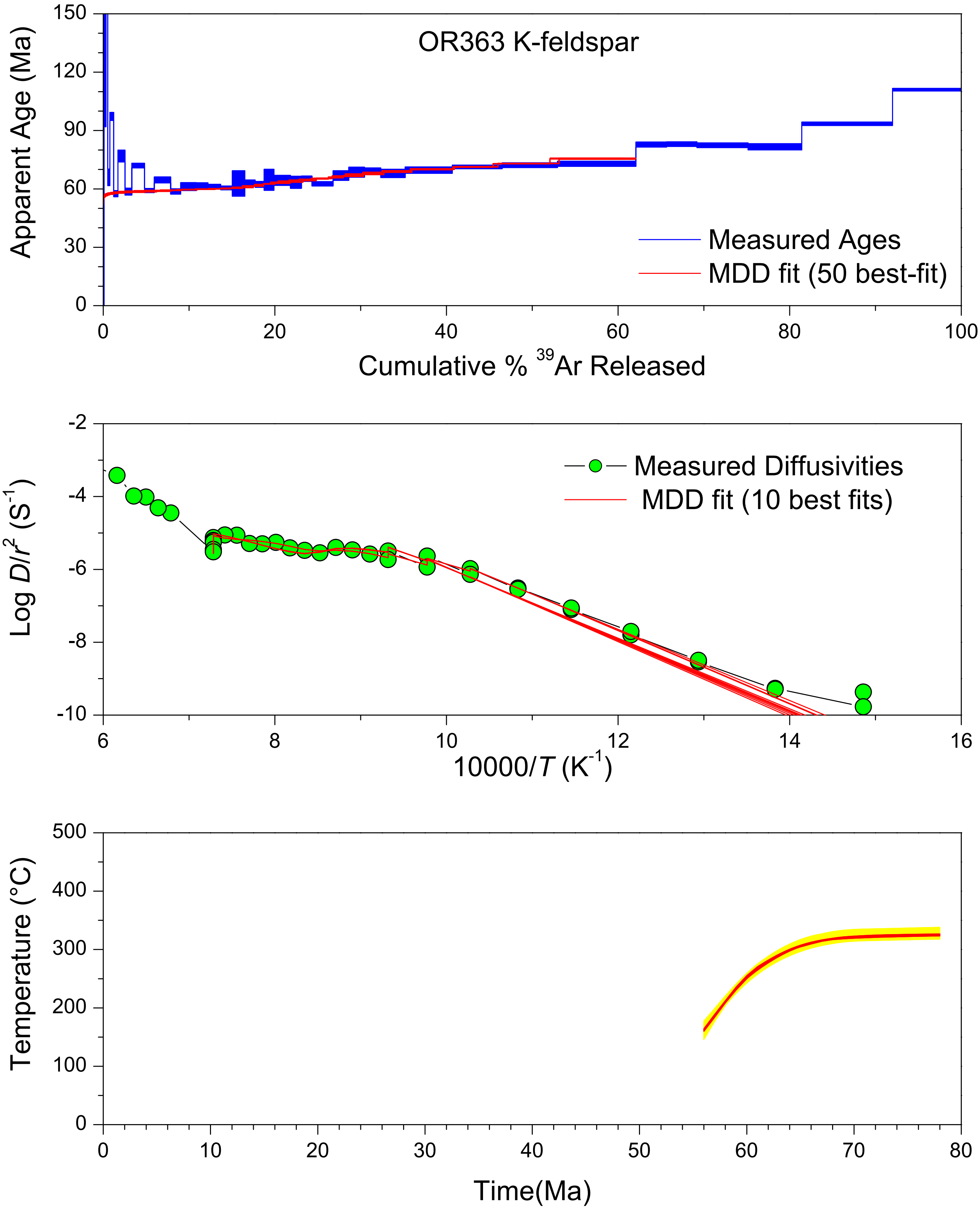

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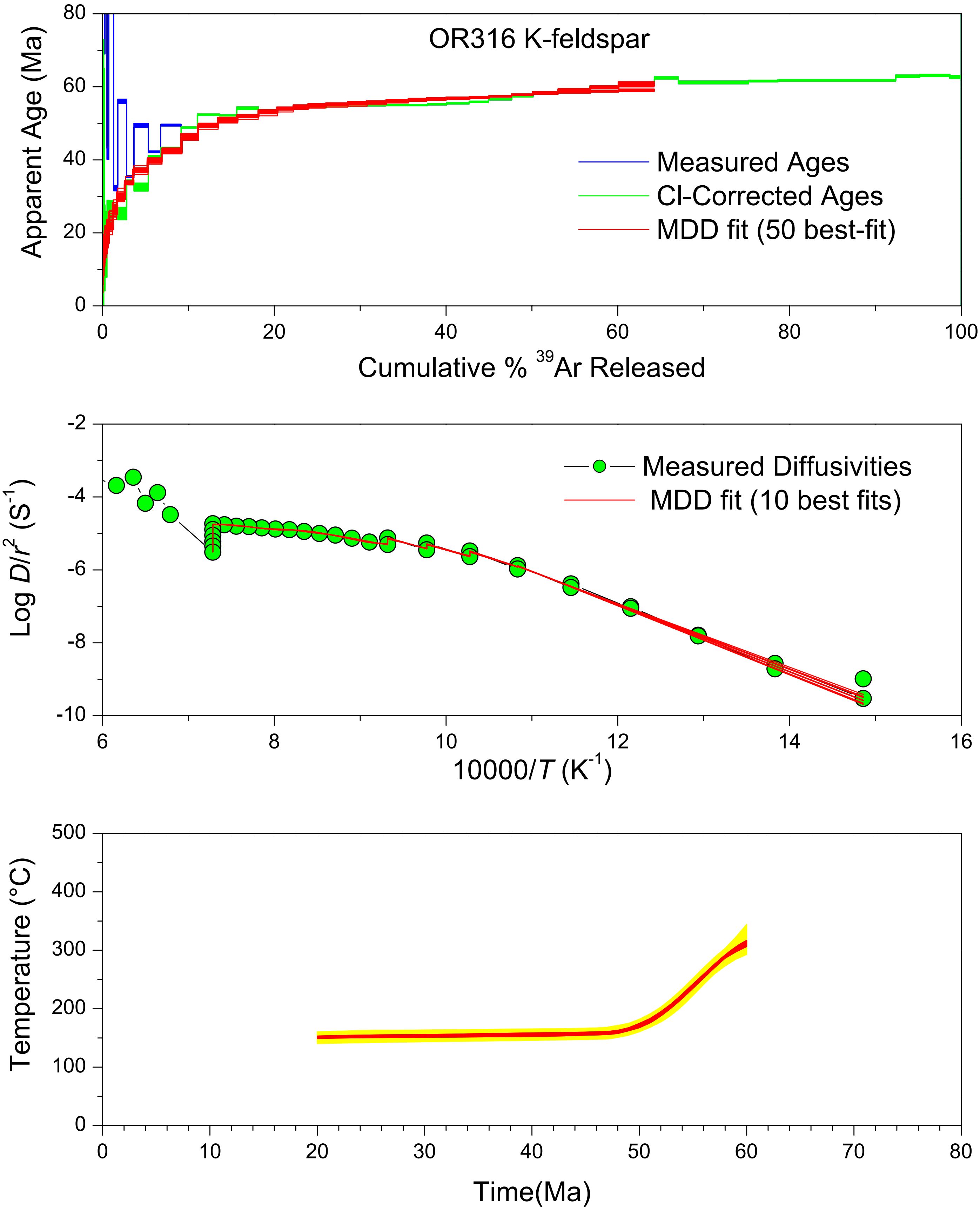

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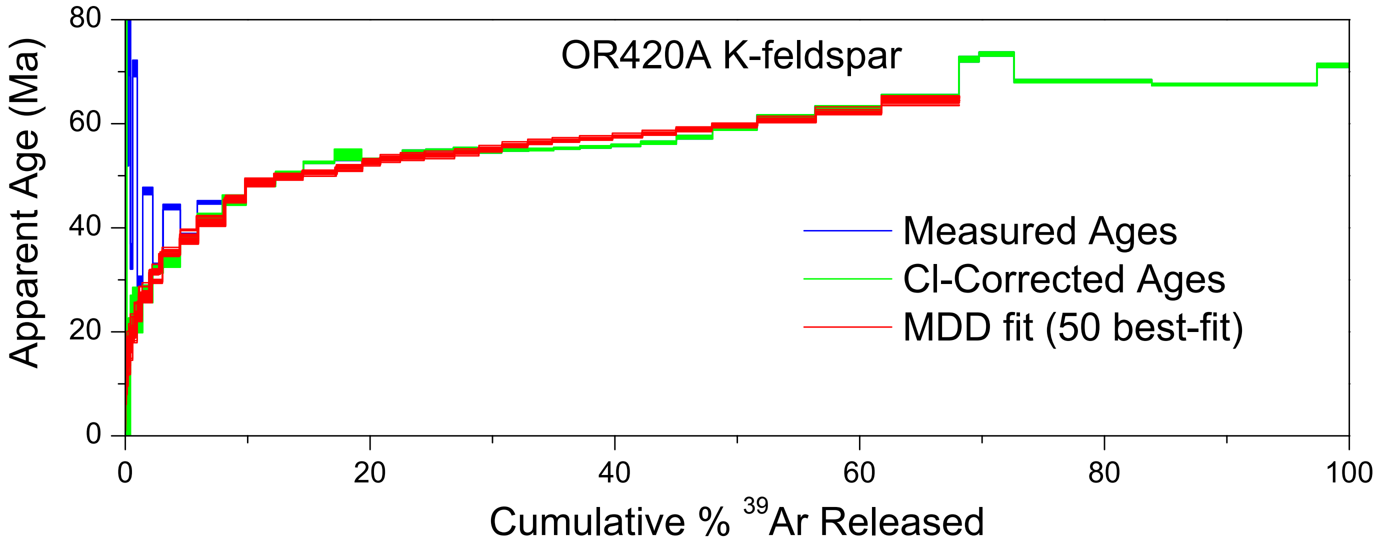

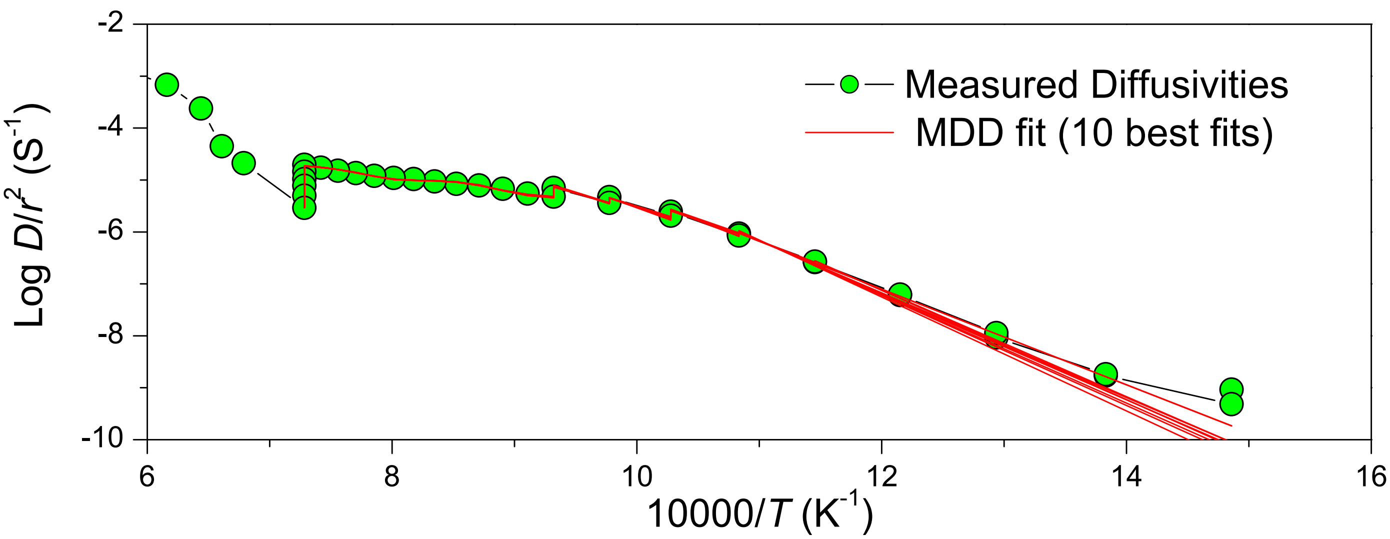

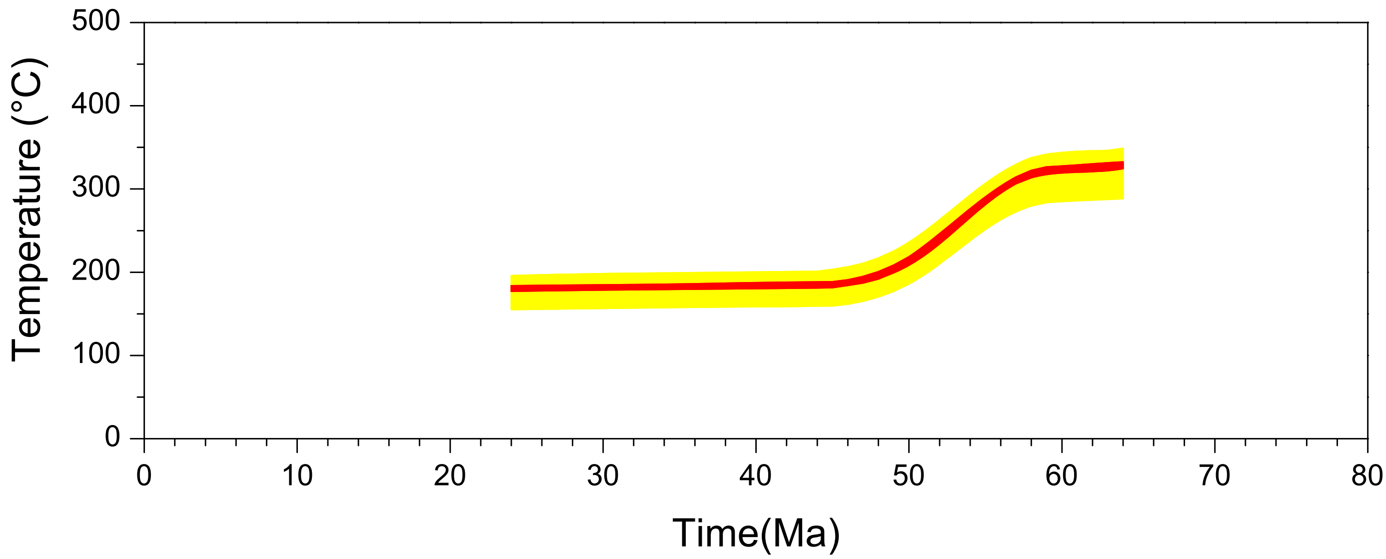

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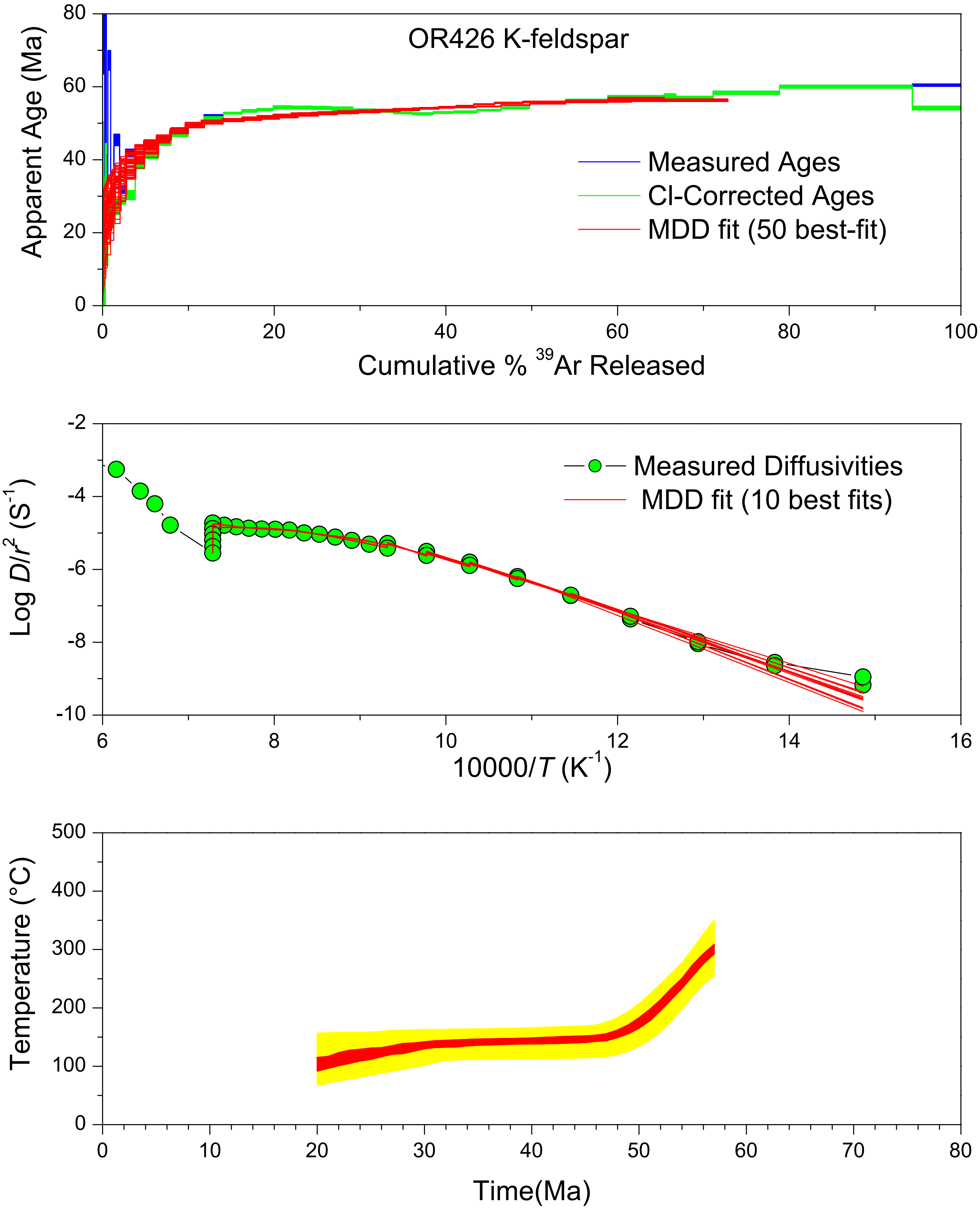

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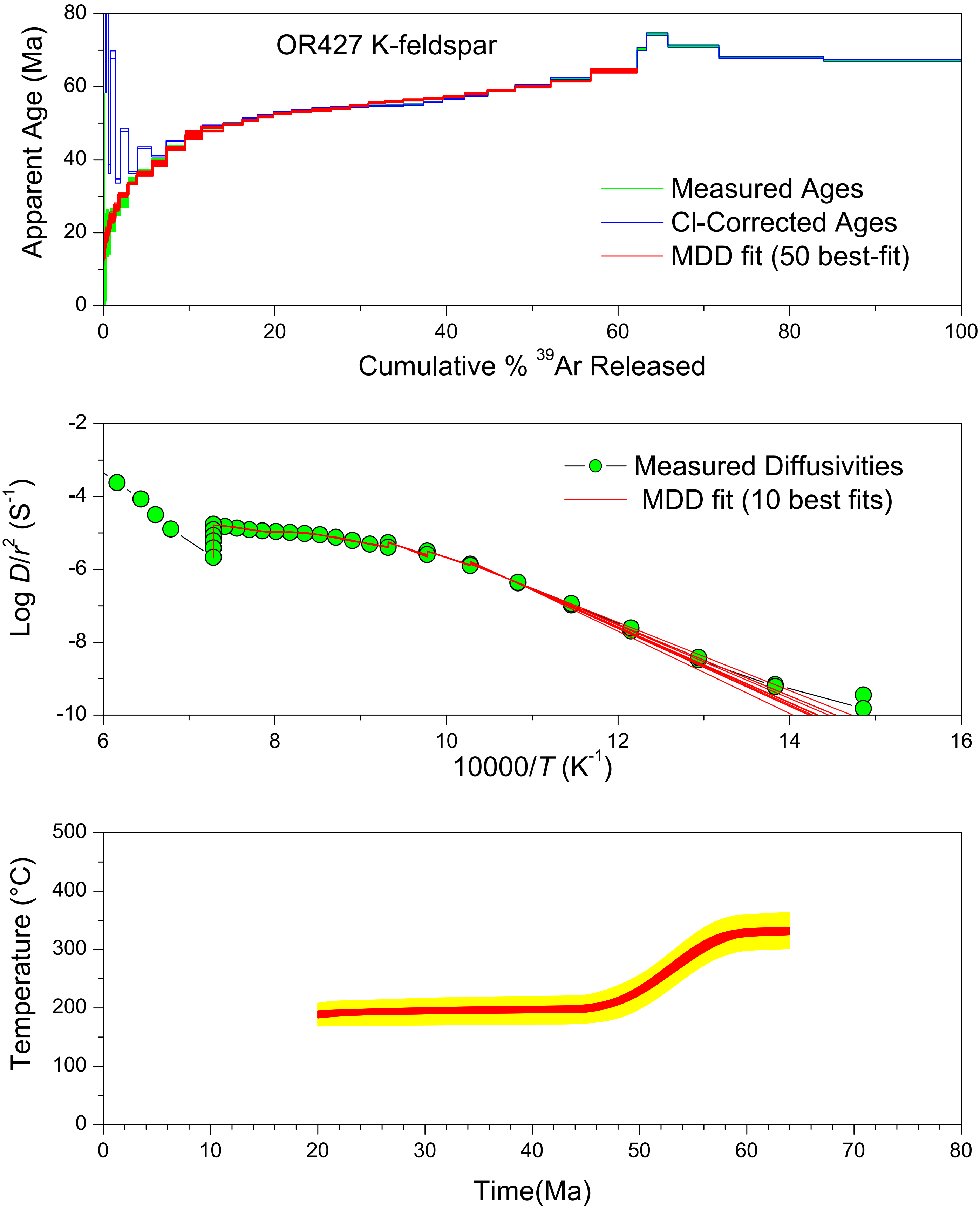

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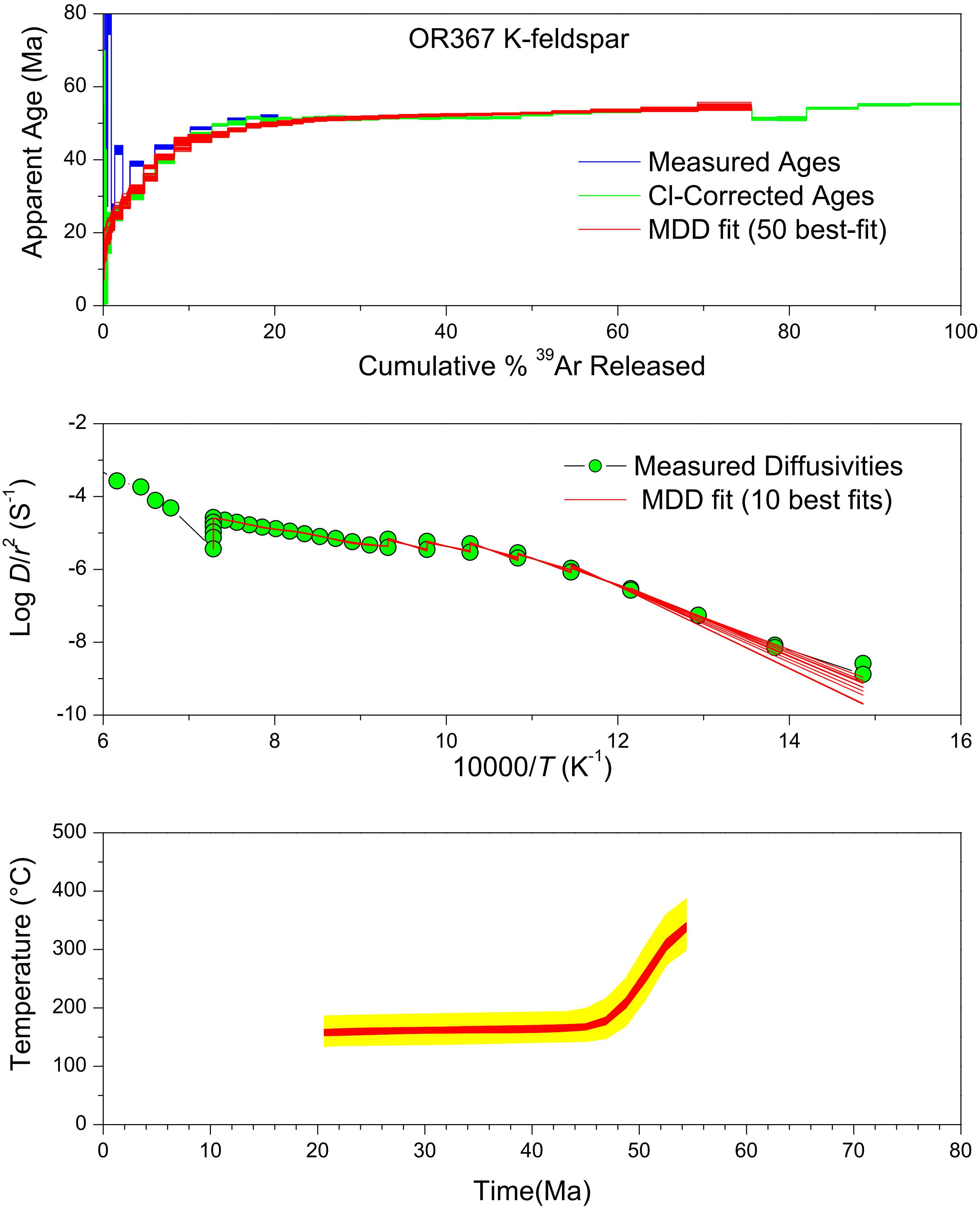

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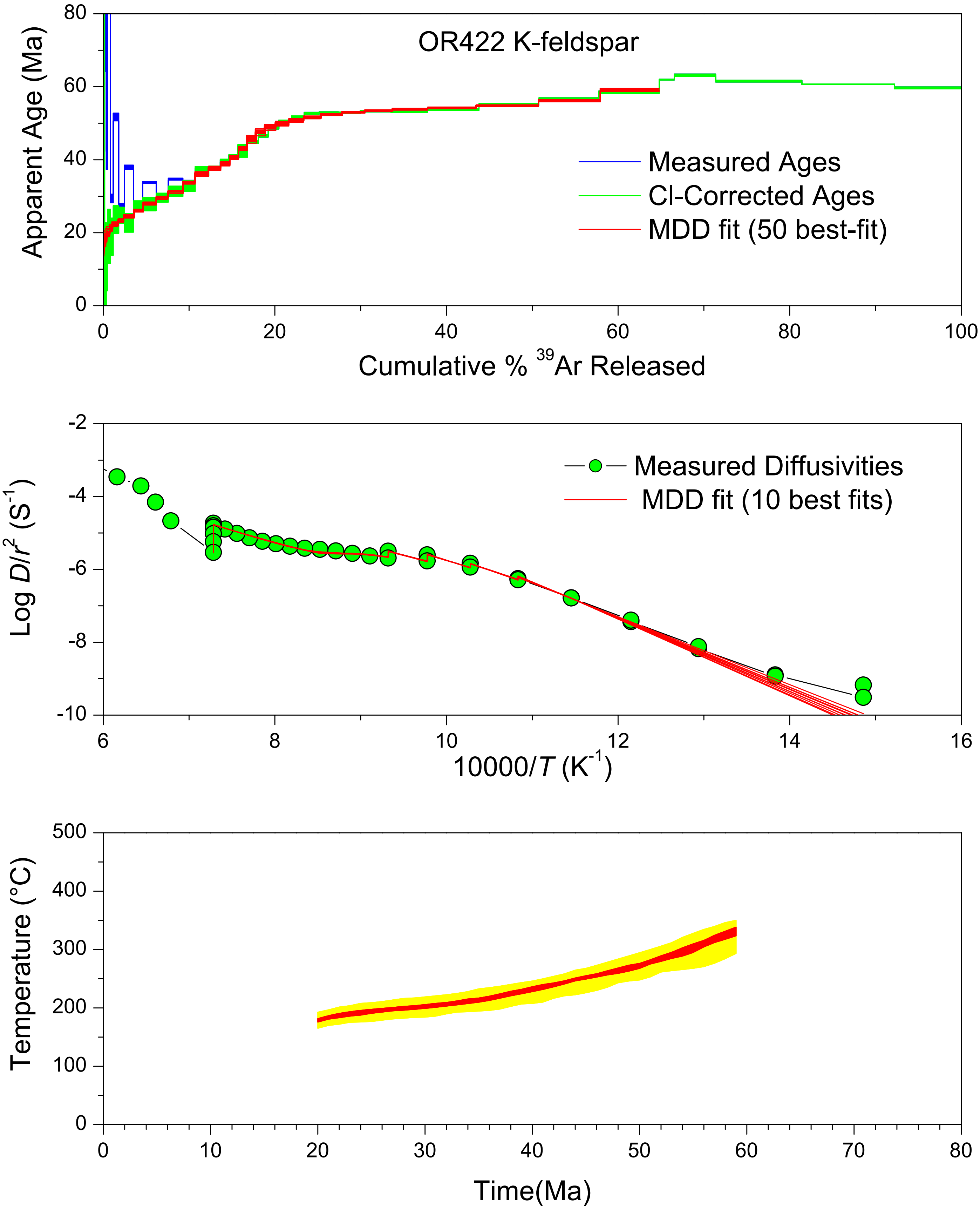

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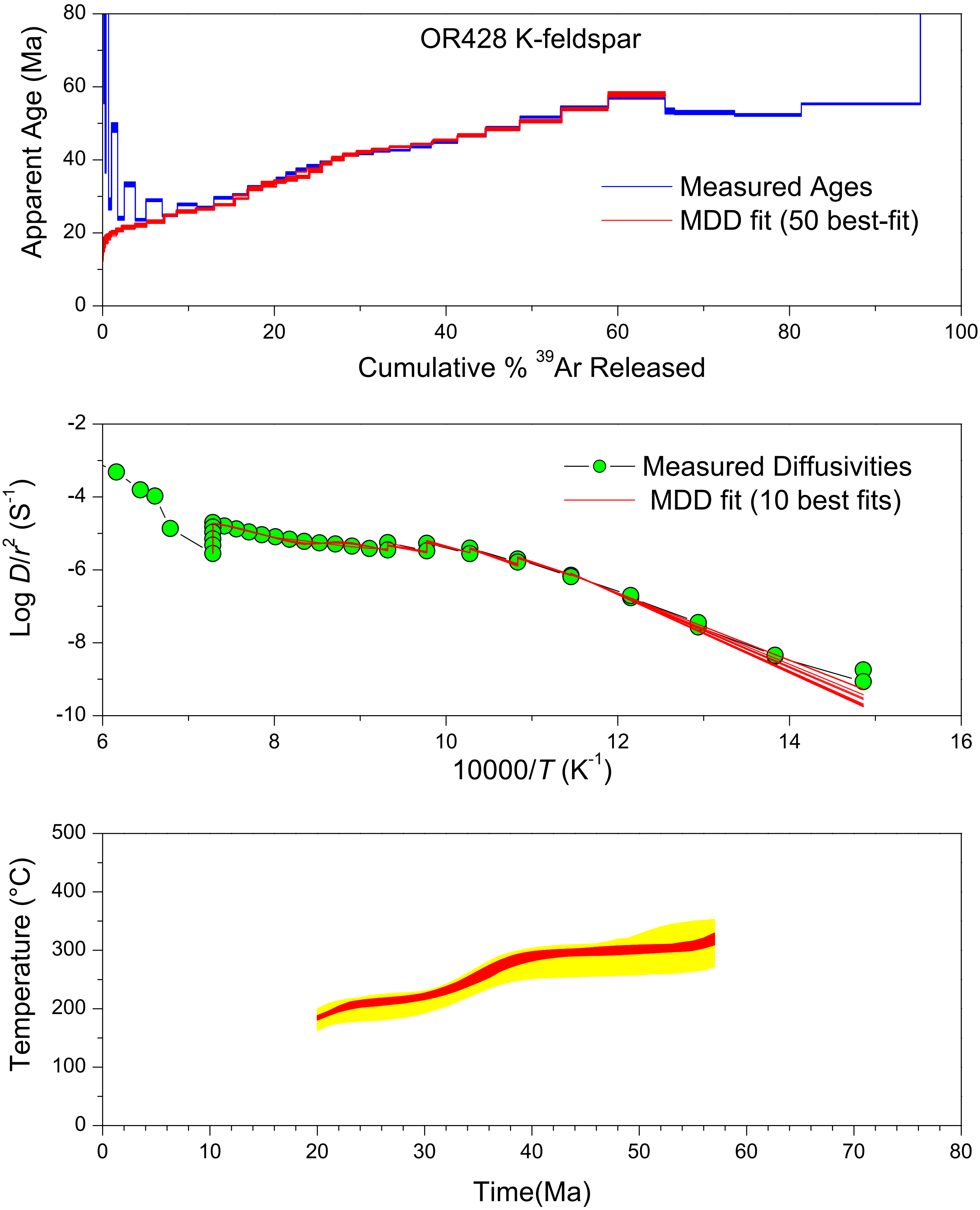

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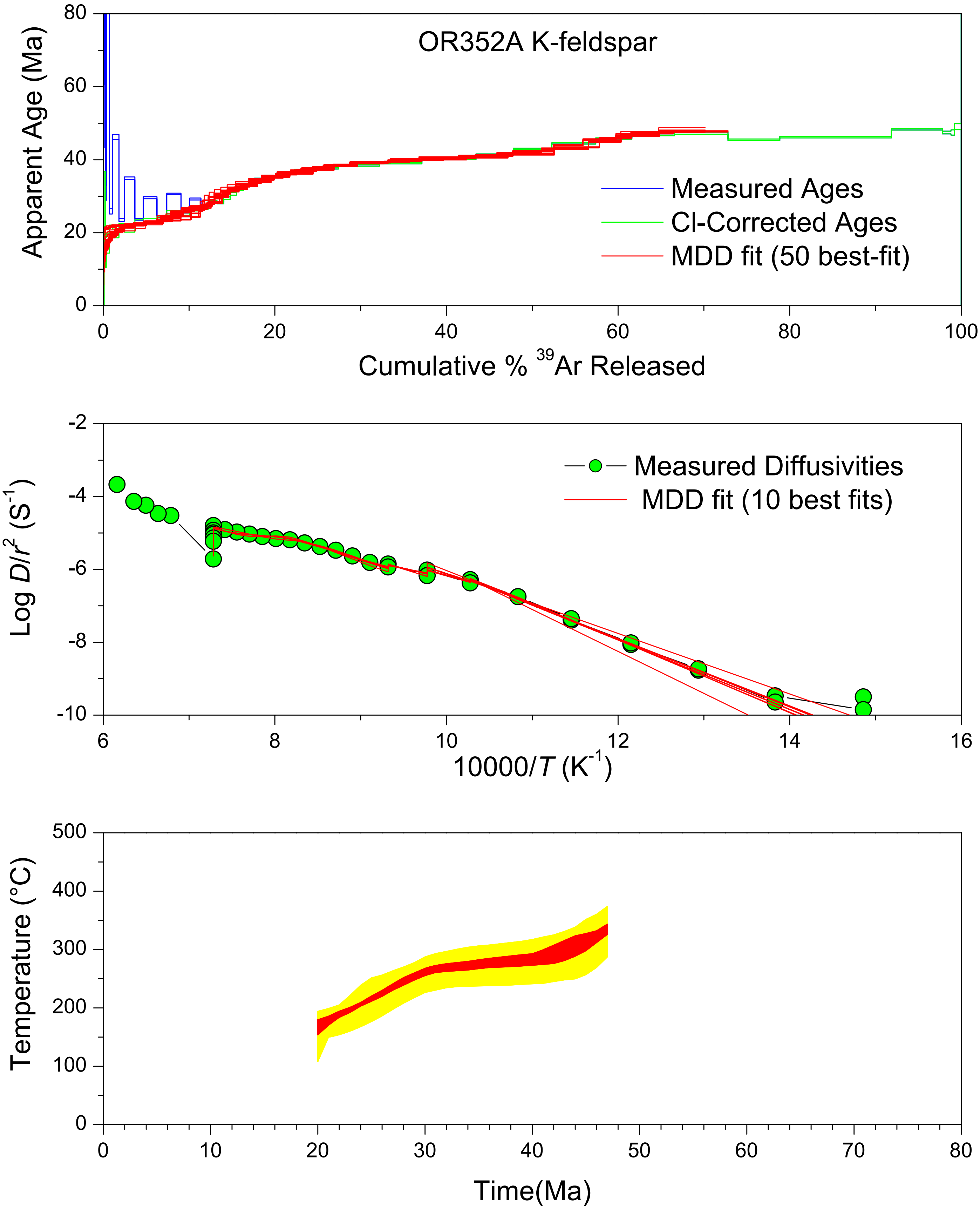

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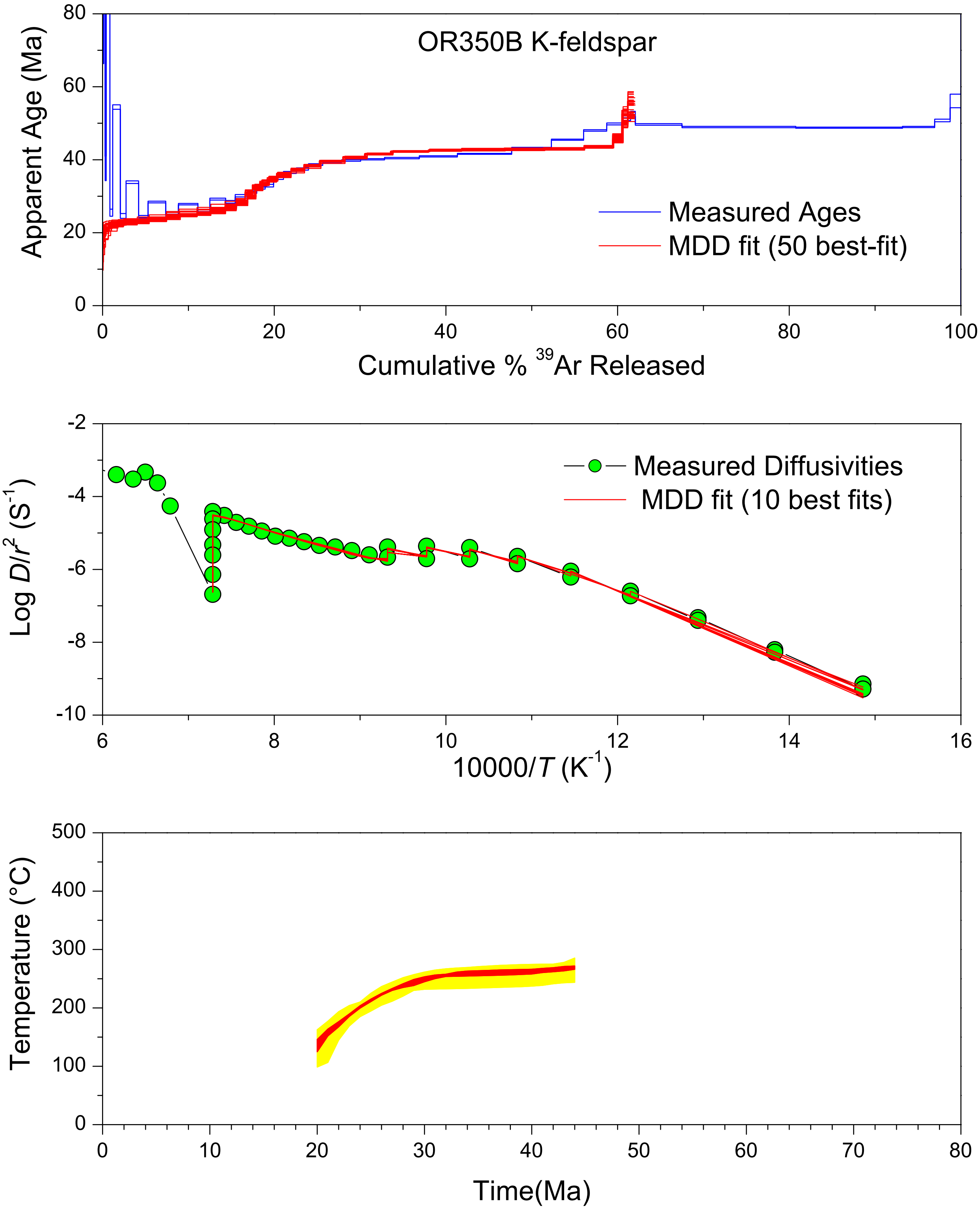

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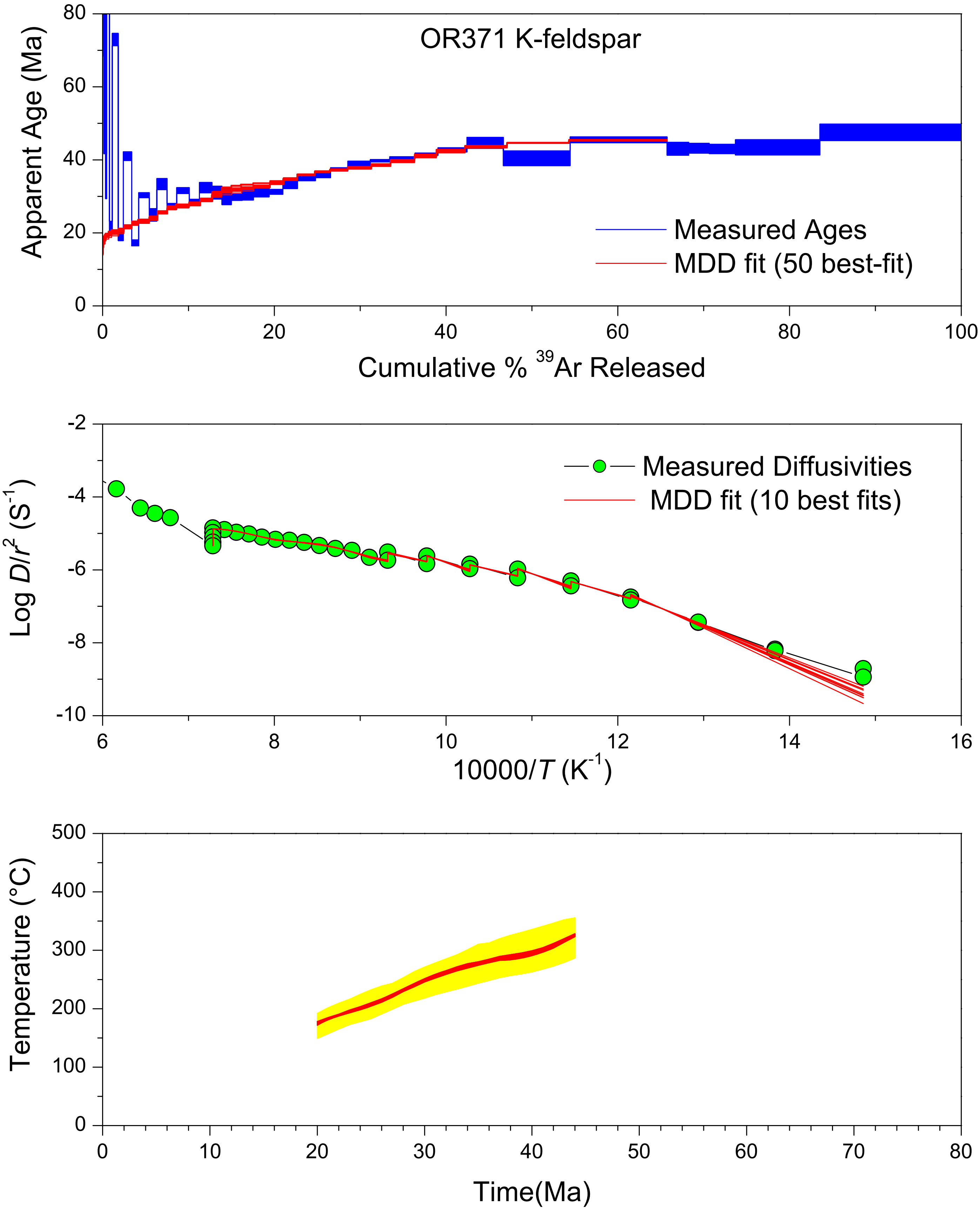

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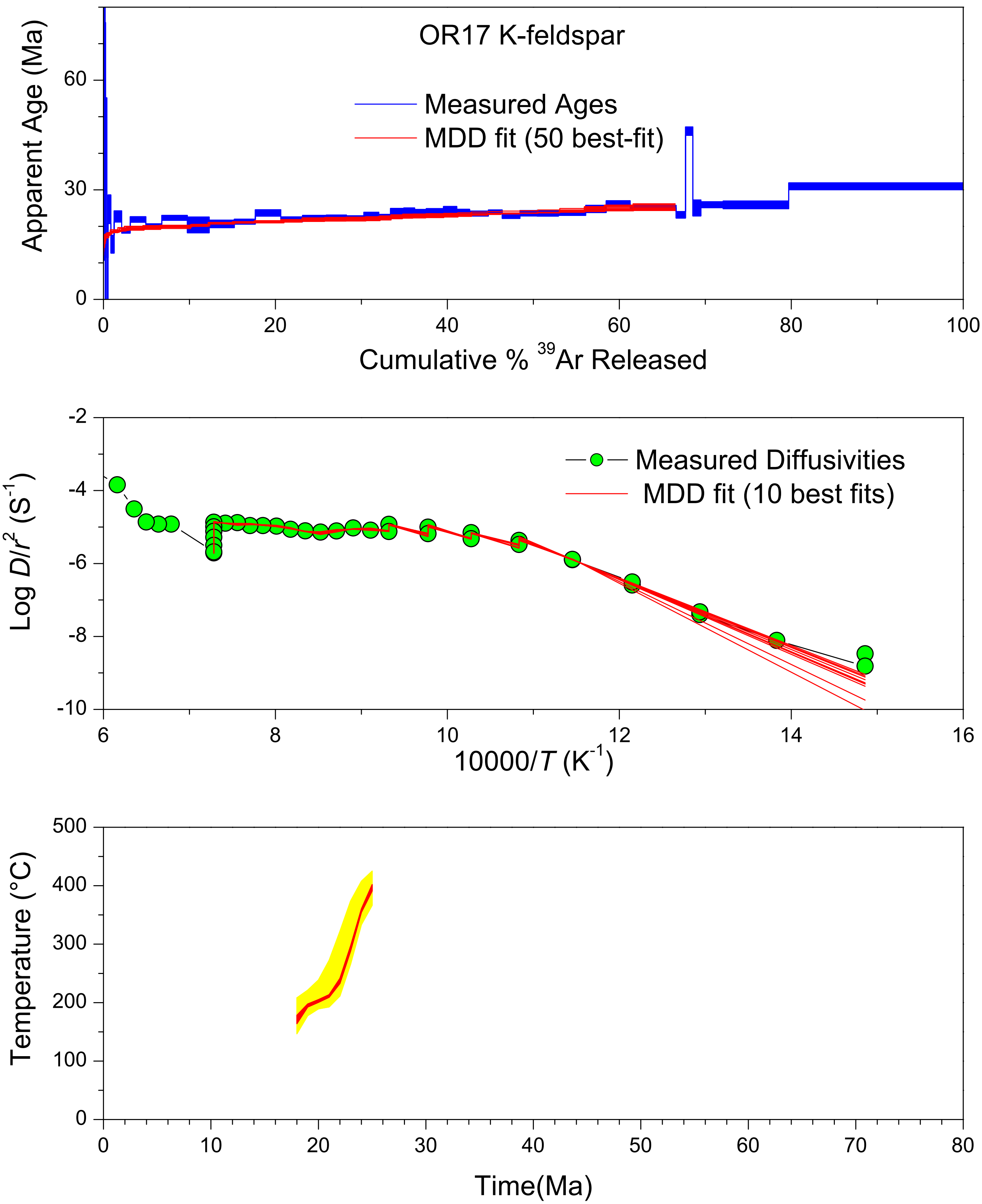

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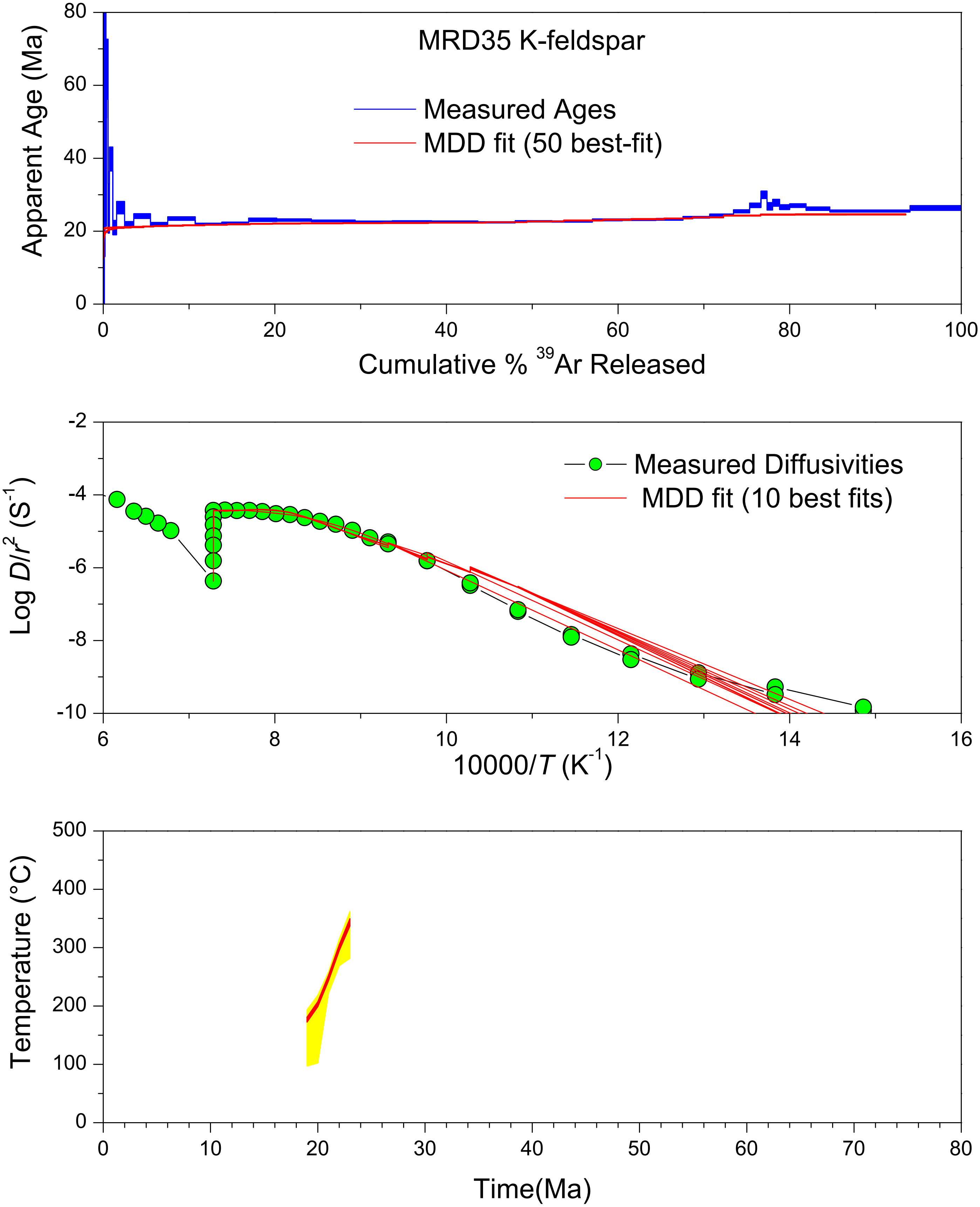

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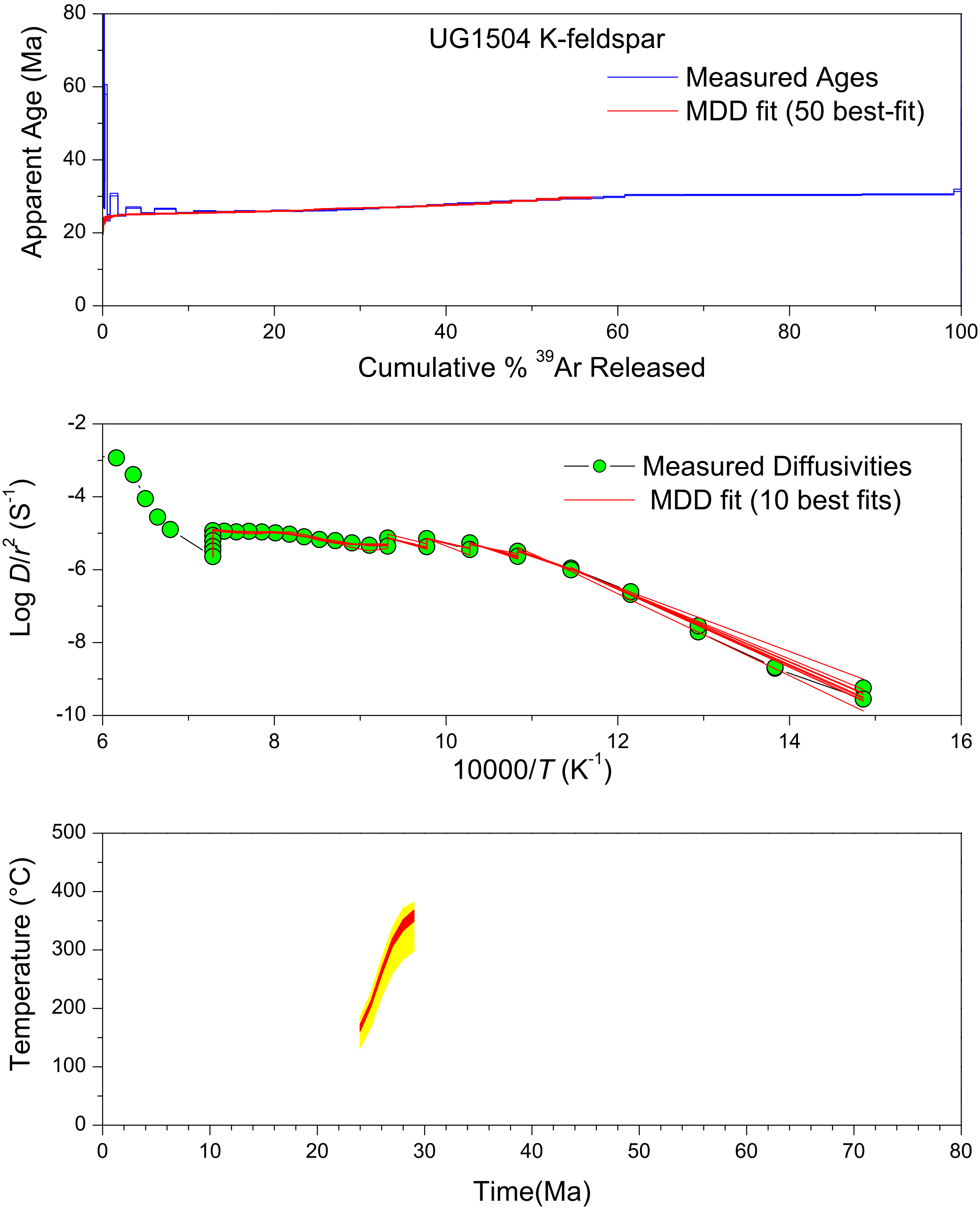

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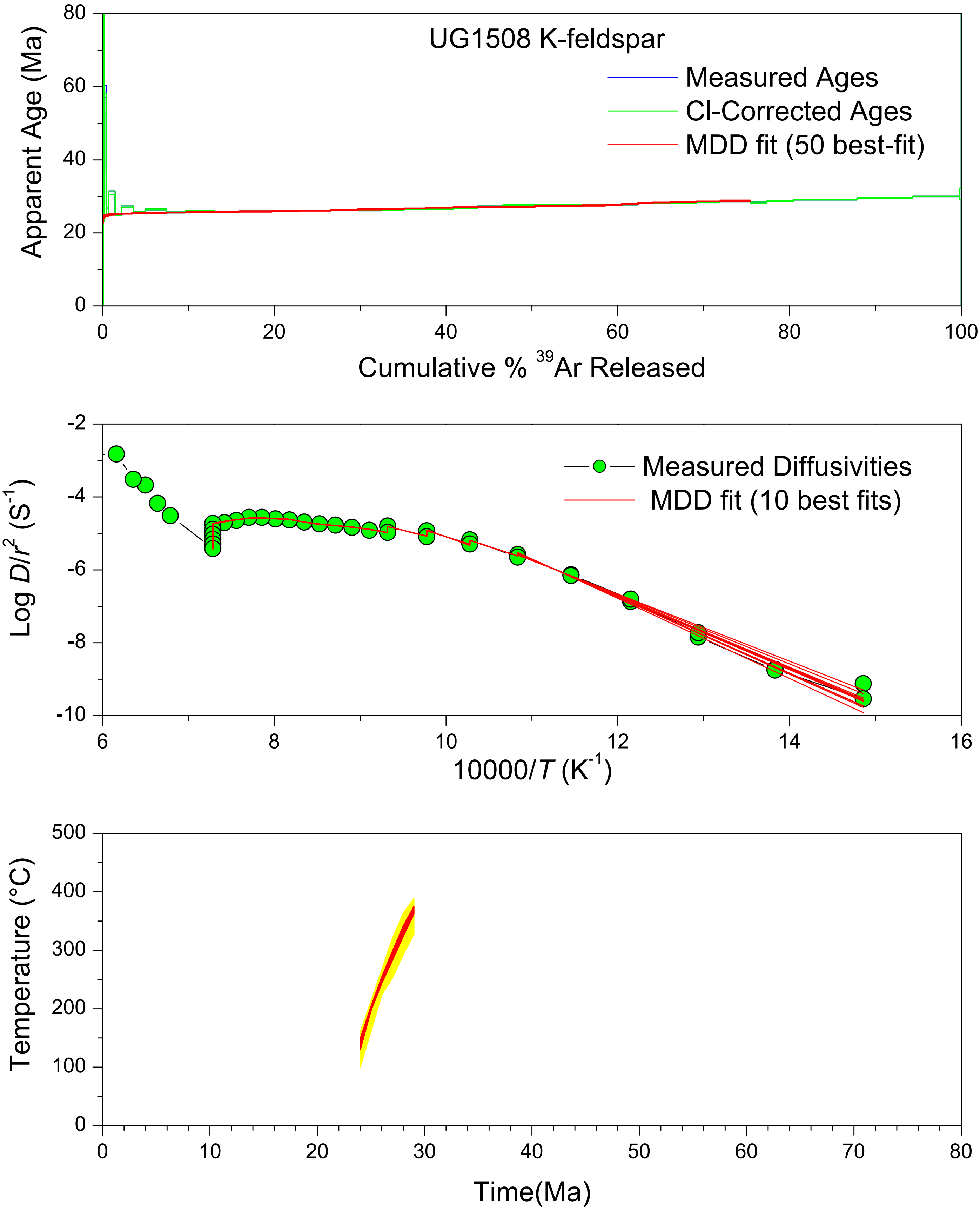

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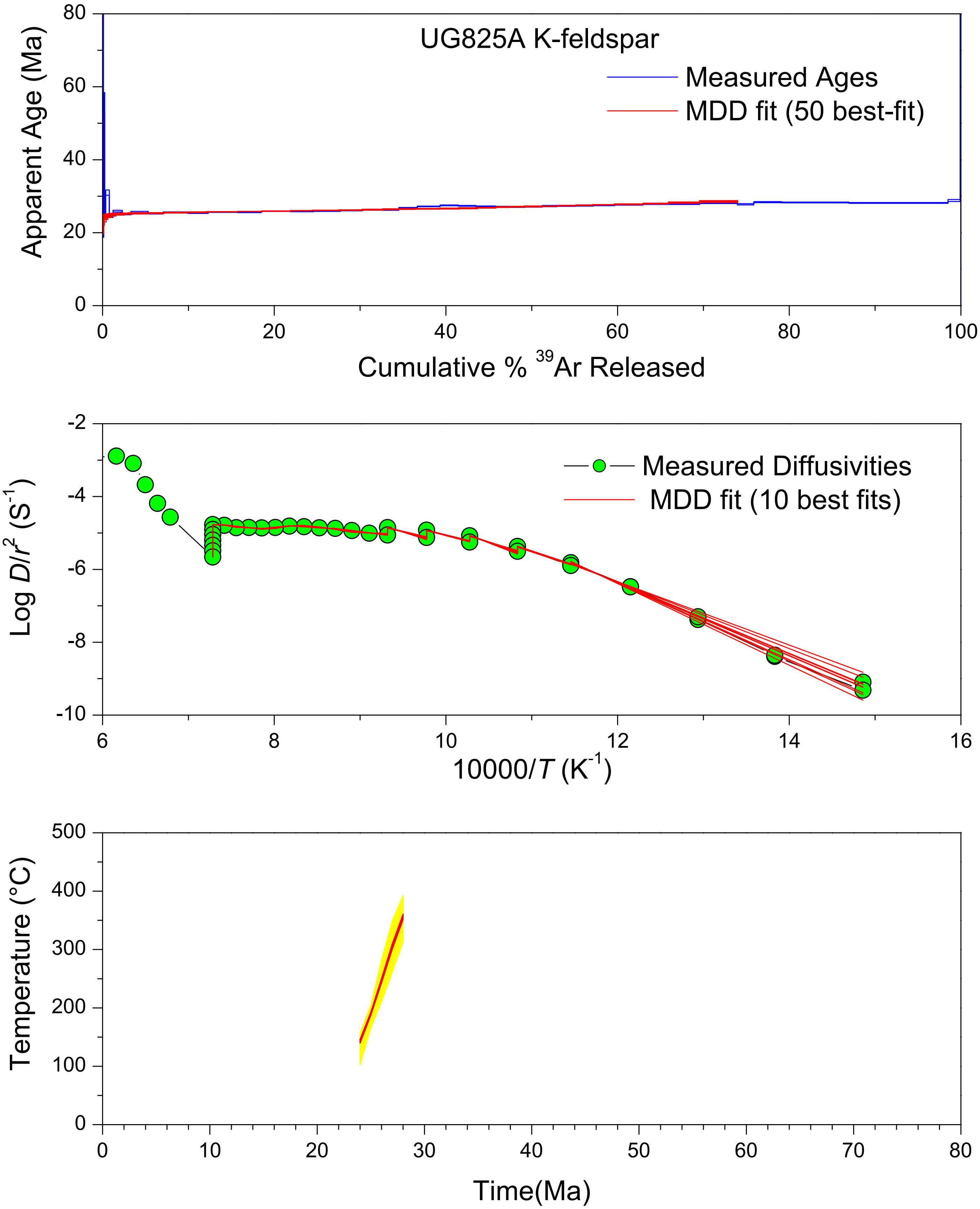

Data Repository Item - Figure 3, Part 16

TABLE 1. SAMPLE LOCATIONS

Sample	UTM X*	UTM Y*
$^{40}Ar/^{39}Ar$ Samples		
OR15	605.971	3717.226
OR17	606.237	3717.505
OR17	606.237	3717.505
OR18	607.059	3716.948
OR30	603.137	3719.544
OR32	603.177	3719.323
OR49	603.998	3718.875
OR68B	607.747	3718.615
OR70	606.574	3718.362
OR77B	613.409	3714.761
OR79	613.629	3714.748
OR83	612.754	3715.986
OR94A	604.082	3717.612
OR109	610.511	3717.251
OR113	610.846	3713.131
OR130	608.841	3717.178
OR148	612.702	3713.848
OR164	611.807	3715.668
OR171	612.652	3715.298
OR178	609.687	3717.683
OR211	608.850	3718.622
OR213	611.308	3717.060
OR213A	611.308	3717.060
OR224B	604.714	3718.713
OR230B	612.875	3716.236
OR232A	612.661	3716.290
OR235A	609.550	3718.556
OR246	609.160	3719.008
OR251G	611.325	3717.273
OR292	613.790	3716.140
OR294	613.969	3716.095
OR303B	613.451	3715.779
OR306	609.682	3718.824
OR307	610.924	3717.529
OR308	609.785	3717.662
OR312A	610.099	3716.481
OR314	609.938	3716.171
OR315A	610.112	3718.871
OR316	609.858	3719.055
OR317	609.754	3719.043
OR322	610.871	3718.733
OR328	611.785	3716.992
OR329	611.607	3717.172
OR332A	609.965	3719.072
OR333A	609.271	3718.671
OR337	600.624	3720.286
OR339	611.689	3718.337
OR340A	611.570	3718.123
OR342	611.620	3717.726
OR344	611.418	3717.606
OR348A	612.119	3718.294
OR349	613.607	3716.768
OR350B	613.803	3716.300
OR351	614.556	3715.530
OR352A	614.732	3715.660
OR353	615.019	3715.732
OR356	605.978	3720.502
OR358	606.399	3719.996
OR359	607.003	3720.069
OR361	607.214	3720.310
OR363	606.951	3720.524
OR364	608.845	3720.547
OR365	608.495	3720.517
OR366	608.534	3720.350
OR367	608.731	3720.039
OR368	608.418	3720.151
OR371	593.350	3720.740

TABLE 1. SAMPLE LOCATIONS (continued)

Sample	UTM X*	UTM Y*
$^{40}Ar/^{39}Ar$ Samples (continued)		
OR372	593.778	3721.860
OR373	593.665	3721.480
OR374	593.745	3721.075
OR374A	593.745	3721.075
OR404	612.729	3716.597
OR410	608.031	3720.354
OR411	607.932	3720.675
OR412	607.550	3720.026
OR418	608.627	3719.580
OR420A	614.365	3717.196
OR422	615.709	3715.811
OR425A	614.979	3717.057
OR426	610.397	3719.265
OR427	610.370	3718.774
MRD35	612.313	3714.581
MRD132	610.270	3714.640
Leucogranite Zircon Samples		
KE1_6_03_2	617.526	3713.153
KE2_6_03_2	616.341	3714.613
OR315A	610.112	3718.871
OR316	609.858	3719.055
OR367	608.731	3720.039
OR420A	614.365	3717.196
OR422	615.709	3715.811
OR426	610.397	3719.265
OR427	610.370	3718.774
Apatite Fission Track Samples		
OR97	604.077	3717.262
OR245	609.160	3719.208

*UTM zone 11, 1927 North American datum

TABLE 2. APATITE FISSION TRACK ANALYTICAL RESULTS FOR SAMPLES FROM THE OROCOPIA MOUNTAINS

Sample, Number of Grains (N), and Rock Unit	Elevation (feet) UTM (X,Y)	ρd (Nd)	ρs ($x10^6$ tracks/cm^2) (Ns)	ρi (Ni)	P(χ2) %	Pooled FT Age [Ma] ± 1σ	Uranium (ppm)	Mean Track Length [μm] (N)
OR97 (20) Orocopia Schist	1158 (604.077, 3717.262)	4.091 (7224)	0.147 (104)	6.343 (4432)	71	16.2±1.7	24	9.37 (1)
OR245 (25) Upper Plate	2640 (609.160, 3719.208)	5.516 (6774)	0.027 (36)	0.939 (1275)	87	26.5±4.5	3	

Note: Standard and induced track densities (ρ_d, ρ_i) measured on mica external detectors (g=0.5), and fossil track densities (ρ_s) on internal mineral surfaces. Number of tracks counted in parentheses (N). Ages calculated using zeta=341±4 for dosimeter glass SRM 612; Chi square probability for single grain ages, P(χ2) %. Analyst, S.S. Boettcher, University of Texas at Austin.

TABLE 3. ION MICROPROBE U-Pb RESULTS FROM OROCOPIA LEUCOGRANITES

$^{206}Pb/^{238}U$ Age† ± 1σ (Ma)	$^{207}Pb/^{235}U$ Age† ± 1σ (Ma)	^{206}Pb*‡ %	^{207}Pb*‡ %	$^{207}Pb/^{206}Pb$ Age ± 1σ (Ma)	U§ (ppm)	Th# (ppm)	UO^+/U^+	Analysis ID
70 ± 3	54 ± 41	88.3	23.9	-	70	63	9.6	OR316_07-10-1
74 ± 2	69 ± 13	96.4	58.4	-	92	80	10.0	OR316_07-05-1
74 ± 1	84 ± 13	98.7	82.8	-	445	326	10.6	OR316_07-02-1
75 ± 2	78 ± 3	99.6	93.6	-	541	202	10.0	OR316_07-01-1
80 ± 2	82 ± 10	97.5	69.1	-	126	59	9.7	OR316_07-06-1
81 ± 5	68 ± 56	63.3	7.5	-	626	98	10.3	OR316_07-04-1
83 ± 1	83 ± 11	95.3	53.9	-	109	55	9.3	OR316_07-08-1
90 ± 13	108 ± 208	67.8	10.8	-	94	90	10.2	OR316_07-07-1
143 ± 4	91 ± 37	96.4	46.1	-	162	120	8.9	OR316-08-13-1
160 ± 5	129 ± 60	95.2	45.0	-	69	91	8.8	OR316-08-14-1
162 ± 2	147 ± 9	98.3	75.6	-	165	124	9.7	OR316_07-09-1
169 ± 3	179 ± 17	99.1	86.2	-	252	555	8.5	OR316-08-12-1
1272 ± 19	1440 ± 15	99.9	99.1	1686 ± 13	320	106	8.8	OR316-08-16-1
1274 ± 32	1300 ± 31	96.8	73.3	1346 ± 57	416	78	7.2	OR316-08-19-1
81 ± 3	49 ± 23	96.2	46.2	-	163	112	10.2	KE1_6_03_2-02-06-1
90 ± 2	111 ± 25	98.6	83.2	-	182	176	10.5	KE1_6_03_2-02-22-1
152 ± 5	223 ± 36	100.0	100.0	-	228	349	10.0	KE1_6_03_2-02-11-1
158 ± 3	135 ± 15	98.8	80.1	-	358	238	10.6	KE1_6_03_2-02-07-1
161 ± 4	223 ± 28	100.0	100.0	-	173	124	10.3	KE1_6_03_2-02-02-1
161 ± 3	138 ± 20	97.9	69.5	-	275	212	10.4	KE1_6_03_2-02-01-1
164 ± 5	185 ± 34	100.0	100.0	-	189	203	11.0	KE1_6_03_2-02-10-1
166 ± 3	170 ± 12	99.4	90.7	-	367	124	10.6	KE1_6_03_2-02-18-1
1156 ± 19	1342 ± 16	100.0	100.0	1651 ± 20	865	62	10.9	KE1_6_03_2-02-05-1
1631 ± 22	1688 ± 20	100.0	99.8	1760 ± 41	318	166	10.6	KE1_6_03_2-02-16-1
70 ± 1	67 ± 10	99.0	84.6	-	282	127	10.7	KE2_6_03_2-03-02-1
73 ± 2	44 ± 23	95.8	43.7	-	120	103	10.7	KE2_6_03_2-03-06-1
74 ± 5	83 ± 38	93.7	48.9	-	79	61	10.1	KE2_6_03_2-03-08-1
93 ± 2	134 ± 18	100.0	100.0	-	505	421	10.3	KE2_6_03_2-03-04-1
155 ± 2	174 ± 14	99.8	97.1	-	383	151	10.5	KE2_6_03_2-03-10-1
318 ± 6	320 ± 43	99.3	89.9	-	129	58	10.2	KE2_6_03_2-03-03-1
1302 ± 26	1351 ± 34	100.0	100.0	1431 ± 71	170	119	10.5	KE2_6_03_2-03-05-1
1490 ± 56	1476 ± 59	99.3	93.9	1455 ± 111	63	41	10.8	KE2_6_03_2-03-09-1
1524 ± 55	1449 ± 53	99.6	95.9	1340 ± 114	59	21	10.6	KE2_6_03_2-03-07-1
1631 ± 27	1678 ± 19	100.0	100.0	1736 ± 29	813	397	10.2	KE2_6_03_2-03-01-1
73 ± 6	-49 ± 107	77.5	-13.1	-	35	19	10.3	OR367-05-01-1
74 ± 1	76 ± 11	98.1	75.5	-	443	56	10.6	OR367-05-03-1
78 ± 1	71 ± 9	99.1	84.4	-	994	1594	10.2	OR367-05-05-1
158 ± 5	146 ± 43	96.7	61.0	-	110	166	10.0	OR367-05-15-01
323 ± 15	284 ± 56	91.1	35.7	-	125	48	9.5	OR367-05-10-01
1193 ± 22	1175 ± 53	99.4	93.5	1142 ± 144	136	197	10.1	OR367-05-12-01
1279 ± 14	1293 ± 21	99.8	97.8	1316 ± 49	302	154	10.4	OR367-05-09-01
1582 ± 17	1578 ± 15	99.4	95.5	1572 ± 28	569	188	10.3	OR367-05-16-01
1696 ± 17	1663 ± 11	99.7	97.6	1621 ± 16	823	81	10.3	OR367-05-06-1@1
1730 ± 20	1734 ± 17	100.0	100.0	1740 ± 32	632	421	10.4	OR367-05-02-1
75 ± 4	78 ± 46	93.3	44.9	-	80	42	9.9	OR427-06-04-01
76 ± 3	62 ± 33	95.2	47.9	-	118	144	10.2	OR427-06-09-01

TABLE 3. ION MICROPROBE U-Pb RESULTS FROM OROCOPIA LEUCOGRANITES (continued)

$^{206}Pb/^{238}U$ Age† ± 1σ (Ma)	$^{207}Pb/^{235}U$ Age† ± 1σ (Ma)	$^{206}Pb^{*‡}$ %	$^{207}Pb^{*‡}$ %	$^{207}Pb/^{206}Pb$ Age ± 1σ (Ma)	U§ (ppm)	Th# (ppm)	UO^+/U^+	Analysis ID
170 ± 4	196 ± 25	100.0	100.0	-	266	243	10.3	OR427-06-05-01
211 ± 3	207 ± 5	99.8	97.5	-	1072	37	9.9	OR427-06-07-01
1487 ± 25	1551 ± 17	100.0	100.0	1639 ± 32	275	57	11.0	OR427-06-08-01
1540 ± 15	1488 ± 9	99.9	99.5	1413 ± 7	3196	244	10.8	OR427-06-11-01
1573 ± 15	1588 ± 14	99.9	99.4	1608 ± 23	470	28	10.6	OR427-06-02-01
1594 ± 29	1604 ± 25	99.5	96.1	1619 ± 45	121	47	10.2	OR427-06-01-01
1781 ± 30	1782 ± 27	100.0	100.0	1782 ± 43	266	157	10.2	OR427-06-13-01
73 ± 7	67 ± 87	81.1	17.8	-	33	22	10.8	OR420A-07-05-01
76 ± 5	65 ± 53	90.2	30.6	-	36	27	10.2	OR420A-07-10-1
76 ± 5	78 ± 61	94.6	49.8	-	63	72	10.6	OR420A-07-41-1
95 ± 4	140 ± 52	93.5	56.0	-	66	36	11.0	OR420A-07-32-1
99 ± 5	97 ± 48	86.6	26.7	-	115	32	9.5	OR420A-07-06-01
170 ± 3	169 ± 22	99.0	84.8	-	222	127	10.3	OR420A-07-40-1
172 ± 3	186 ± 22	99.7	96.2	-	336	323	10.6	OR420A-07-11-1
1613 ± 23	1677 ± 21	100.0	100.0	1759 ± 34	167	76	10.4	OR420A-07-02-01
1670 ± 21	1692 ± 16	100.0	100.0	1720 ± 22	402	107	10.4	OR420A-07-08-01
1897 ± 28	1794 ± 15	100.0	100.0	1676 ± 15	1834	44	11.1	OR420A-07-01-01
159 ± 4	153 ± 37	98.4	77.7	-	239	397	10.2	OR426-09-40-1
269 ± 8	473 ± 20	103.0	100.0	1640 ± 66	479	329	9.9	OR426-09-07-01
1393 ± 18	1491 ± 14	99.3	94.7	1634 ± 29	257	53	10.6	OR426-09-01-01
1481 ± 34	1463 ± 26	99.6	96.2	1438 ± 36	305	60	10.4	OR426-09-28-1
1505 ± 32	1491 ± 24	99.3	94.4	1471 ± 52	210	85	10.4	OR426-09-18-01
1636 ± 30	1695 ± 29	100.0	100.0	1770 ± 44	88	35	10.4	OR426-09-38-1
1650 ± 37	1672 ± 37	100.0	100.0	1700 ± 68	80	40	10.4	OR426-09-31-1
1684 ± 18	1717 ± 18	100.0	100.0	1758 ± 28	383	111	10.2	OR426-09-32-1
1723 ± 27	1700 ± 31	99.9	99.5	1671 ± 54	147	65	10.4	OR426-09-11-01
1802 ± 17	1765 ± 15	100.0	100.0	1722 ± 26	663	401	10.4	OR426-09-05-01
74 ± 3	87 ± 33	96.1	62.0	-	113	111	10.6	OR422-10-39-1
76 ± 3	94 ± 20	98.4	81.0	-	212	173	10.9	OR422-10-13-1
77 ± 3	70 ± 31	96.1	55.7	-	118	93	11.0	OR422-10-25-1
77 ± 1	80 ± 12	99.9	97.7	-	480	352	10.5	OR422-10-07-1
78 ± 3	77 ± 36	92.8	41.7	-	116	101	10.7	OR422-10-06-1
78 ± 3	96 ± 34	96.3	64.6	-	94	82	10.5	OR422-10-28-1
79 ± 3	60 ± 29	96.0	50.5	-	85	57	9.9	OR422-10-09-1
79 ± 4	84 ± 48	91.7	39.2	-	81	81	10.5	OR422-10-11-1
79 ± 4	63 ± 35	96.0	52.1	-	86	65	10.8	OR422-10-21-1
79 ± 3	93 ± 39	96.8	67.3	-	80	94	10.4	OR422-10-16-1
80 ± 5	96 ± 47	92.5	45.5	-	79	74	10.6	OR422-10-08-1
80 ± 2	110 ± 24	98.4	82.4	-	305	198	10.9	OR422-10-02-1
81 ± 2	111 ± 11	100.0	100.0	-	451	369	10.7	OR422-10-31-1
84 ± 4	95 ± 57	91.6	41.2	-	94	90	10.2	OR422-10-04-1
87 ± 2	106 ± 17	98.8	84.7	-	259	147	10.7	OR422-10-17-01

†Analytical precision only.
‡Radiogenic Pb calculated using ^{208}Pb as a proxy for common Pb. Assumed composition of common Pb is $^{206}Pb/^{204}Pb$ = 18.7; $^{207}Pb/^{204}Pb$ = 15.6; $^{208}Pb/^{204}Pb$ = 37.9
§Calculated from measured $U^+/94Zr_2O^+$. Assumes a mean U-content of 550 ppm in AS-3 std. zircon.
#Calculated from measured Th^+/U^+: $RSF_{Th/U}$ = 0.91±0.01 determined from AS-3 std. zircon

Table 4. $^{40}Ar/^{39}Ar$ Data Tables.

OR32 Hornblende (16.2 mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1]	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	750	10	43.13	191.6	1.889	137.1	5.186	4.753	6.430	27.80 ± 1.45	33.00 ± 1.70	2.316 ± 0.004	31.66 ± 0.11
2	850	10	12.62	32.77	4.433	33.37	2.741	7.265	24.62	31.37 ± 1.65	37.20 ± 1.94	7.913 ± 0.018	25.44 ± 0.44
3	950	10	5.875	23.67	13.12	13.45	12.26	18.50	51.59	30.72 ± 0.50	36.43 ± 0.59	16.91 ± 0.04	16.26 ± 0.28
4	990	10	5.826	22.16	12.17	9.961	31.00	46.91	67.52	39.76 ± 0.38	47.02 ± 0.44	17.07 ± 0.02	10.87 ± 0.22
5	1020	10	6.098	20.62	12.08	9.486	21.87	66.96	71.06	43.84 ± 0.27	51.77 ± 0.31	16.31 ± 0.03	9.649 ± 0.14
6	1050	10	5.978	18.57	11.96	8.824	11.36	77.36	73.42	44.49 ± 0.44	52.53 ± 0.52	16.64 ± 0.01	8.792 ± 0.25
7	1100	14	8.266	21.77	16.89	16.91	3.762	80.81	56.83	48.06 ± 0.95	56.68 ± 1.10	11.97 ± 0.04	14.37 ± 0.37
8	1150	10	9.937	21.49	16.65	22.05	12.86	92.60	48.95	49.40 ± 0.75	58.23 ± 0.87	9.956 ± 0.024	17.20 ± 0.24
9	1250	10	9.148	21.57	13.31	18.50	7.691	99.64	52.67	48.89 ± 0.76	57.65 ± 0.88	10.85 ± 0.01	15.90 ± 0.28
10	1450	15	73.15	62.86	7.897	221.2	0.3877	99.99	11.46	85.12 ± 28.4	99.20 ± 32.26	1.359 ± 0.01	29.93 ± 1.30

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 1.6x10^{-16}; m/e39 = 8.6x10^{-17}; m/e38 = 4.9x10^{-17}; m/e37 = 7.9x10^{-17}; m/e 36 = 9.3x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-07-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224;$^{36}Ar/^{39}Ar_{Ca}$ = 0.0003;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0 006641 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR79 Hornblende (20.8 mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1]	$^{36}Ar/^{39}Ar$ [1] x10^{-2}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	750	10	66.65	99.06	3.182	21.09	7.831	6.063	6.876	45.96 ± 1.84	54.79 ± 2.17	14.97 ± 0.02	31.51 ± 0.09
2	850	10	14.66	28.62	5.300	4.204	5.548	10.36	18.24	26.94 ± 1.33	32.32 ± 1.58	68.05 ± 0.06	27.64 ± 0.31
3	950	10	5.801	21.41	12.21	1.254	20.09	25.91	54.27	31.86 ± 0.39	38.15 ± 0.46	171.4 ± 0.50	15.36 ± 0.21
4	990	14	6.258	20.64	12.77	1.084	40.86	57.55	66.47	42.06 ± 0.17	50.20 ± 0.20	158.8 ± 0.10	11.24 ± 0.09
5	1020	23	8.025	20.47	12.86	1.604	18.76	72.07	54.76	44.46 ± 0.35	53.02 ± 0.41	123.7 ± 0.20	15.23 ± 0.14
6	1050	10	11.08	22.52	14.12	2.847	1.444	73.19	34.63	39.40 ± 4.16	47.07 ± 4.91	89.44 ± 0.38	21.92 ± 1.25
7	1100	10	11.15	24.47	21.46	2.920	2.429	75.07	39.10	44.73 ± 1.86	53.34 ± 2.18	88.39 ± 0.40	20.46 ± 0.54
8	1150	14	13.45	24.43	16.65	3.287	28.91	97.45	38.58	52.57 ± 0.40	62.53 ± 0.46	73.53 ± 0.09	20.76 ± 0.09
9	1250	10	13.51	23.98	14.72	3.369	3.172	99.91	35.86	48.95 ± 2.41	58.30 ± 2.83	73.29 ± 0.62	21.70 ± 0.56
10	1450	20	419.7	300.0	7.898	143.8	0.118	99.99	-	-	0 ± 0	2.368 ± 0.083	34.21 ± 1.92

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 1.7x10^{-16}; m/e39 = 9.2x10^{-17}; m/e38 = 5.3x10^{-17}; m/e37 = 8.3x10^{-17}; m/e 36 = 1.0x10^{-16}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-07-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006709 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR109 Hornblende (19.9 mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1]	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-16}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	750	10	46.81	56.72	1.963	145.6	47.31	4.915	8.403	39.44 ± 2.63	47.10 ± 3.10	21.34 ± 0.06	30.99 ± 0.19
2	850	10	18.52	29.14	4.662	53.64	32.67	8.310	16.44	30.68 ± 2.44	36.74 ± 2.89	53.88 ± 0.25	28.25 ± 0.44
3	950	10	9.295	21.53	17.60	26.08	94.96	18.17	33.54	31.70 ± 0.56	37.95 ± 0.66	106.4 ± 0.10	22.43 ± 0.20
4	990	14	8.941	22.08	21.43	23.14	188.7	37.78	44.44	40.47 ± 0.68	48.31 ± 0.81	110.3 ± 0.30	18.74 ± 0.24
5	1020	10	7.954	18.81	19.40	17.78	202.3	58.80	55.20	44.65 ± 0.68	53.22 ± 0.80	124.2 ± 0.10	15.08 ± 0.28
6	1050	10	8.646	18.44	19.39	19.82	134.2	72.75	51.78	45.54 ± 0.80	54.27 ± 0.93	114.2 ± 0.30	16.24 ± 0.30
7	1100	14	12.15	22.72	23.18	32.34	48.52	77.79	37.90	47.07 ± 1.18	56.07 ± 1.38	81.00 ± 0.31	20.94 ± 0.31
8	1150	10	26.58	32.84	21.12	75.70	75.30	85.61	22.76	61.56 ± 2.11	72.98 ± 2.45	37.05 ± 0.09	26.12 ± 0.26
9	1250	10	16.73	23.92	19.86	44.54	128.6	98.97	31.68	53.87 ± 1.45	64.02 ± 1.70	58.95 ± 0.32	23.09 ± 0.26
10	1450	14	29.72	31.98	20.30	88.81	9.909	99.99	17.58	53.43 ± 14.12	63.51 ± 16.5	33.14 ± 0.27	27.85 ± 1.58

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 1.4x10^{-16}; m/e39 = 9.8x10^{-17}; m/e38 = 5.7x10^{-17}; m/e37 = 8.7x10^{-17}; m/e 36 = 1.1x10^{-16}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-07-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0 006706 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR171 Hornblende (25.4 mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-1}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	750	10	23.25	69.27	30.04	71.26	22.68	9.743	10.47	24.40 ± 1.20	28.90 ± 1.41	4.296 ± 0.01	30.29 ± 0.17
2	850	10	5.766	23.12	25.52	12.80	11.44	14.66	37.80	21.93 ± 0.78	25.99 ± 0.92	17.37 ± 0.05	20.95 ± 0.45
3	950	10	4.354	24.33	80.91	6.910	40.82	32.19	68.96	30.27 ± 0.38	35.77 ± 0.44	22.94 ± 0.05	10.35 ± 0.28
4	990	14	5.148	22.57	100.8	6.157	60.78	58.30	81.51	42.33 ± 0.33	49.84 ± 0.38	19.36 ± 0.04	6.111 ± 0.20
5	1020	10	5.624	19.54	109.2	6.809	27.49	70.11	80.89	45.96 ± 0.37	54.05 ± 0.43	17.70 ± 0.04	6.309 ± 0.21
6	1050	10	5.829	17.83	107.2	7.879	11.60	75.09	75.67	44.65 ± 0.53	52.53 ± 0.61	17.08 ± 0.03	8.033 ± 0.30
7	1100	15	6.637	20.03	142.2	10.81	8.590	78.78	70.18	47.32 ± 0.74	55.62 ± 0.86	14.95 ± 0.02	9.896 ± 0.37
8	1150	10	7.246	19.01	151.1	11.81	28.71	91.11	69.94	51.35 ± 0.39	60.28 ± 0.45	13.68 ± 0.01	10.07 ± 0.18
9	1250	10	6.619	17.29	113.3	9.098	20.46	99.90	74.07	49.57 ± 0.34	58.22 ± 0.40	15.03 ± 0.01	8.636 ± 0.17
10	1450	14	127.8	95.11	75.64	405.5	0.2331	99.99	6.673	86.53 ± 54.0	100.4 ± 60.9	0.778 ± 0.02	31.56 ± 1.39

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 1.7x10^{-16}; m/e39 = 9.1x10^{-17}; m/e38 = 5.1x10^{-17}; m/e37 = 8.0x10^{-17}; m/e 36 = 9.5x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed 09-06-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224;$^{36}Ar/^{39}Ar_{Ca}$ = 0.0003;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006617 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR211 Hornblende (23.4 mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-2}	$^{37}Ar/^{39}Ar$ [1] x10^{-1}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	750	10	79.29	18.11	145.9	247.3	4.152	1.220	9.439	75.76 ± 3.72	89.32 ± 4.28	12.47 ± 0.03	30.64 ± 0.15
2	850	10	23.79	13.75	35.82	65.66	2.772	2.035	19.61	46.99 ± 2.10	55.92 ± 2.46	41.95 ± 0.23	27.17 ± 0.28
3	950	10	9.227	43.30	67.63	12.50	27.75	10.19	66.16	61.43 ± 0.43	72.77 ± 0.50	108.1 ± 0.20	11.37 ± 0.15
4	990	10	7.704	44.75	67.38	7.041	40.15	21.99	80.38	62.31 ± 0.16	73.79 ± 0.19	129.5 ± 0.10	6.534 ± 0.07
5	1020	10	7.352	45.04	66.96	5.781	45.96	35.50	84.46	62.47 ± 0.20	73.97 ± 0.23	135.7 ± 0.10	5.146 ± 0.09
6	1050	10	7.375	45.77	68.12	5.865	67.82	55.43	84.33	62.56 ± 0.07	74.07 ± 0.08	135.3 ± 0.00	5.197 ± 0.03
7	1100	14	6.875	45.18	63.93	4.668	33.00	65.13	87.74	60.70 ± 0.19	71.91 ± 0.22	145.2 ± 0.10	4.014 ± 0.03
8	1150	10	8.164	44.49	66.43	8.083	56.14	81.63	77.63	63.74 ± 0.31	75.45 ± 0.36	122.2 ± 0.20	7.481 ± 0.12
9	1250	10	8.353	46.33	68.07	8.294	61.97	99.84	77.57	65.17 ± 0.18	77.10 ± 0.21	119.4 ± 0.20	7.505 ± 0.05
10	1450	14	43.72	34.46	49.47	127.2	0.5377	99.99	14.77	65.59 ± 13.5	77.59 ± 15.64	22.80 ± 0.36	28.78 ± 1.00

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 1.8x10^{-16}; m/e39 = 9.9x10^{-17}; m/e38 = 5.7x10^{-17}; m/e37 = 8.7x10^{-17}; m/e 36 = 1.1x10^{-16}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed 09-07-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0.0067 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR294 Hornblende (23.8 mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-2}	$^{37}Ar/^{39}Ar$[1] x10^{-1}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	750	10	44.28	18.52	81.58	138.9	11.74	2.246	8.863	39.51 ± 2.12	46.67 ± 2.47	2.245 ± 0.01	30.84 ± 0.16
2	850	10	12.95	8.514	29.02	34.22	6.147	3.422	23.63	30.76 ± 0.78	36.43 ± 0.92	7.720 ± 0.02	25.80 ± 0.20
3	950	10	9.138	23.56	53.57	13.98	23.11	7.842	59.65	54.81 ± 1.35	64.41 ± 1.56	10.92 ± 0.15	13.58 ± 0.27
4	990	19	7.845	28.68	46.13	6.954	78.79	22.91	78.69	61.98 ± 0.16	72.68 ± 0.18	12.74 ± 0.02	7.121 ± 0.05
5	1020	11	7.092	28.51	45.70	4.419	110.1	43.97	86.95	61.90 ± 0.17	72.59 ± 0.20	14.10 ± 0.00	4.312 ± 0.08
6	1050	10	6.637	27.74	45.47	3.360	93.13	61.78	90.73	60.46 ± 0.12	70.92 ± 0.14	15.07 ± 0.01	3.017 ± 0.06
7	1100	14	6.525	25.84	42.34	3.836	44.00	70.20	87.95	57.63 ± 0.19	67.67 ± 0.22	15.33 ± 0.00	3.945 ± 0.10
8	1150	10	7.149	27.08	42.81	5.292	78.33	85.18	83.08	59.62 ± 0.15	69.96 ± 0.17	13.99 ± 0.02	5.623 ± 0.05
9	1250	10	7.497	28.17	45.62	5.375	77.36	99.98	83.87	63.13 ± 0.12	73.99 ± 0.14	13.33 ± 0.02	5.360 ± 0.04
10	1450	13	209.1	31.17	40.12	681.8	0.119	99.99	3.750	79.49 ± 191.8	92.69 ± 218.0	0.477 ± 0.03	32.56 ± 3.04

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 1.8x10^{-16}; m/e39 = 9.9x10^{-17}; m/e38 = 5.7x10^{-17}; m/e37 = 8.7x10^{-17}; m/e 36 = 1.1x10^{-16}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-07-2001)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224;$^{36}Ar/^{39}Ar_{Ca}$ = 0.0003;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)
[5] Assumes trapped argon is atmospheric. J-factor = 0.006632 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR303B Hornblende (23.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$ $x10^{-1}$	$^{38}Ar/^{39}Ar^{1}$ $x10^{-3}$	$^{37}Ar/^{39}Ar^{1}$	$^{36}Ar/^{39}Ar^{1}$ $x10^{-2}$	$^{39}Ar_K{}^{2}$ (mol) $x10^{-15}$	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^{4}$ ± 1σ $x10^{-1}$	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1σ $x10^{-3}$	$^{36}Ar/^{40}Ar^{6}$ ± 1σ $x10^{-4}$
1	750	10	88.18	301.9	10.19	27.11	5.479	5.156	10.13	90.12 ± 3.48	104.6 ± 3.9	11.25 ± 0.02	30.41 ± 0.13
2	850	10	17.01	39.80	10.27	4.889	2.581	7.585	20.18	34.82 ± 2.20	41.16 ± 2.57	58.39 ± 0.11	26.96 ± 0.43
3	950	10	7.739	26.55	17.00	1.935	12.97	19.79	45.20	35.54 ± 1.64	41.99 ± 1.91	127.9 ± 0.30	18.46 ± 0.71
4	990	14	7.536	26.23	15.94	1.608	38.19	55.73	55.34	42.26 ± 0.56	49.83 ± 0.65	131.5 ± 0.20	15.04 ± 0.25
5	1020	10	8.681	26.32	17.66	1.929	20.39	74.91	52.02	45.85 ± 0.74	54.01 ± 0.86	113.9 ± 0.60	16.16 ± 0.24
6	1050	10	10.68	28.58	19.38	2.680	6.631	81.15	41.54	45.21 ± 1.19	53.26 ± 1.38	92.46 ± 0.21	19.70 ± 0.37
7	1100	14	15.37	33.67	24.91	4.293	2.613	83.61	31.45	49.65 ± 1.88	58.40 ± 2.18	63.91 ± 0.20	23.10 ± 0.40
8	1150	10	22.49	37.01	25.21	6.307	11.29	94.24	26.93	61.83 ± 1.20	72.45 ± 1.38	43.65 ± 0.15	24.71 ± 0.16
9	1250	10	15.70	33.24	21.33	4.053	6.060	99.94	35.51	56.84 ± 1.16	66.71 ± 1.34	62.74 ± 0.14	21.77 ± 0.24
10	1450	16	467.7	305.3	2.164	157.4	0.060	99.99	0.582	27.57 ± 421.0	32.67 ± 494	2.135 ± 0.13	33.64 ± 3.04

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $1.9x10^{-16}$; m/e39 = $9.6x10^{-17}$; m/e38 = $5.5x10^{-17}$; m/e37 = $8.4x10^{-17}$; m/e 36 = $1.0x10^{-16}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-06-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224;$^{36}Ar/^{39}Ar_{Ca}$ = 0.0003;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0 006627 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR329 Hornblende (23.5mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$ x10^{1}	$^{38}Ar/^{39}Ar^{1}$ x10^{-2}	$^{37}Ar/^{39}Ar^{1}$ x10^{-1}	$^{36}Ar/^{39}Ar^{1}$ x10^{-1}	$^{39}Ar_K{}^{2}$ (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^{*}/^{39}Ar_K{}^{4}$ ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar^{6}$ ± 1 σ x10^{-4}
1	750	15	7.986	24.72	40.23	2.556	4.842	2.733	5.779	4.632 ± 0.679	56.74 ± 8.19	12.49 ± 0.05	31.88 ± 0.28
2	950	15	2.015	14.61	71.85	0.5521	5.320	5.736	21.71	4.405 ± 0.338	54.01 ± 4.08	49.42 ± 0.24	26.47 ± 0.56
3	1010	15	0.8196	20.25	90.27	0.1128	16.79	15.21	67.71	5.595 ± 0.110	68.32 ± 1.32	121.6 ± 0.2	10.81 ± 0.45
4	1050	15	0.7267	19.51	97.21	0.07313	42.86	39.41	80.52	5.899 ± 0.042	71.96 ± 0.51	137.1 ± 0.2	6.465 ± 0.189
5	1150	15	0.7368	19.18	95.42	0.07091	86.28	88.11	81.49	6.051 ± 0.027	73.77 ± 0.32	135.3 ± 0.2	6.141 ± 0.106
6	1300	15	0.8349	19.91	99.80	0.1057	21.05	99.99	71.73	6.041 ± 0.082	73.65 ± 0.98	119.3 ± 0.3	9.457 ± 0.322
7	1450	15	328.4	240.0	83.48	108.3	0.01645	99.99	2.556	84.72 ± 1160	830.3 ± 9113	0.303 ± 0.076	32.97 ± 11.73

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.0 x10^{-16}; m/e39 = 5.0 x10^{-17}; m/e38 = 2.1 x10^{-17}; m/e37 = 3.4 x10^{-17}; m/e36 = 3.8 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-06-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006898 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR342 Hornblende (22.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-2}	$^{37}Ar/^{39}Ar$ [1] x10^{-1}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	750	15	21.40	7.584	2.849	18.79	108.8	17.78	74.00	15.84 ± 0.10	186.9 ± 1.07	4.678 ± 0.01	87.57 ± 1.30
2	950	15	10.05	23.85	22.84	1.527	383.3	80.42	97.01	9.772 ± 0.03	117.5 ± 0.38	9.959 ± 0.03	9.064 ± 0.48
3	1010	15	9.845	14.82	14.64	1.543	64.71	90.99	96.22	9.486 ± 0.03	114.2 ± 0.30	10.18 ± 0.02	11.68 ± 0.56
4	1050	15	12.93	14.08	23.87	3.787	15.19	93.48	92.52	12.00 ± 0.09	143.2 ± 1.01	7.737 ± 0.02	24.34 ± 2.19
5	1150	15	33.65	13.31	37.00	4.128	26.40	97.79	97.15	32.79 ± 0.12	367.4 ± 1.22	2.966 ± 0.01	9.298 ± 0.58
6	1300	15	28.41	4.381	11.91	5.549	12.63	99.85	94.42	26.86 ± 0.12	306.3 ± 1.25	3.520 ± 0.01	18.41 ± 1.23
7	1450	15	66.09	8.341	16.90	115.2	0.895	99.99	48.52	32.19 ± 1.69	361.2 ± 17.2	1.512 ± 0.01	173.7 ± 8.18

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $1.0x10^{-16}$; m/e39 = $4.5x10^{-17}$; m/e38 = $2.1x10^{-17}$; m/e37 = $3.1x10^{-17}$; m/e 36 = $3.6x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 05-03-2002; Analyzed: 09-07-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000271; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000772)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006888 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR349 Hornblende (24.3mg)

	T	Time	$^{40}Ar/^{39}Ar^{1}$	$^{38}Ar/^{39}Ar^{1}$	$^{37}Ar/^{39}Ar^{1}$	$^{36}Ar/^{39}Ar^{1}$	$^{39}Ar_K{}^{2}$	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^{*3}$	$^{40}Ar^*/^{39}Ar_K{}^{4}$	Age[5]	$^{39}Ar_K/^{40}Ar^{6}$	$^{36}Ar/^{40}Ar^{6}$
	(°C)	(min.)					(mol)	(%)	(%)	± 1σ	± 1 σ (Ma)	± 1 σ	± 1 σ
			x10	x10^{-2}		x10^{-2}	x10^{-15}					x10^{-3}	x10^{-4}
1	750	15	11.93	33.57	3.222	23.68	5.796	5.160	41.51	49.65 ± 0.76	531.6 ± 7.1	8.366 ± 0.031	19.79 ± 0.19
2	950	15	1.013	51.75	10.73	1.581	19.65	22.65	62.01	6.338 ± 0.102	77.24 ± 1.22	98.20 ± 0.16	12.78 ± 0.34
3	1010	15	0.7203	55.72	12.34	0.6705	52.64	69.51	85.75	6.238 ± 0.036	76.05 ± 0.43	138.1 ± 0.2	4.687 ± 0.159
4	1050	15	0.9586	50.04	11.40	1.367	5.040	74.00	66.86	6.485 ± 0.288	78.99 ± 3.44	103.7 ± 0.4	11.08 ± 1.00
5	1150	15	1.014	55.51	12.18	0.9626	29.00	99.81	81.23	8.320 ± 0.069	100.7 ± 0.8	97.97 ± 0.21	6.256 ± 0.216
6	1300	15	66.88	99.95	19.21	32.64	0.1956	99.98	85.72	582.5 ± 18.9	2911 ± 47	1.473 ± 0.037	4.802 ± 0.406
7	750	15	150.9	126.5	10.67	501.4	0.01930	99.99	1.861	28.44 ± 362	323.4 ± 3776	0.657 ± 0.110	33.21 ± 7.99

[1] Corrected for backgrounds (mean values in mol: m/e40 = 9.1x10^{-17}; m/e39 = 4.5 x10^{-17}; m/e38 = 1.9 x10^{-17}; m/e37 = 3.2 x10^{-17}; m/e36 = 3.2 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-07-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006902 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR356 Hornblende (23.6mg)

	T (°C)	Time (min.)	^{40}Ar/^{39}Ar[1]	^{38}Ar/^{39}Ar[1] x10^{-2}	^{37}Ar/^{39}Ar[1] x10^{-1}	^{36}Ar/^{39}Ar[1] x10^{-2}	^{39}Ar$_K$[2] (mol) x10^{-15}	Σ ^{39}Ar$_K$ (%)	^{40}Ar*[3] (%)	^{40}Ar*/^{39}Ar$_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	^{39}Ar$_K$/^{40}Ar[6] ± 1 σ x10^{-3}	^{36}Ar/^{40}Ar[6] ± 1 σ x10^{-4}
1	750	15	49.38	14.10	53.55	14.69	10.70	6.81	12.92	64.08 ± 4.11	78.10 ± 4.90	20.18 ± 0.06	29.47 ± 0.28
2	950	15	7.535	28.47	82.70	1.140	30.20	26.04	63.64	48.29 ± 0.58	59.17 ± 0.70	132.4 ± 0.3	12.20 ± 0.25
3	1010	15	6.860	38.24	107.7	0.670	47.04	55.99	83.23	57.60 ± 0.42	70.36 ± 0.51	145.2 ± 0.2	5.537 ± 0.203
4	1050	15	7.030	30.09	75.14	0.8497	9.999	62.36	72.28	51.21 ± 1.03	62.68 ± 1.24	142.0 ± 0.4	9.229 ± 0.486
5	1150	15	7.422	36.80	91.50	0.7509	51.81	95.35	79.54	59.48 ± 0.36	72.60 ± 0.44	134.3 ± 0.2	6.804 ± 0.156
6	1300	15	10.72	35.75	105.9	1.629	7.233	99.95	62.62	67.80 ± 1.88	82.53 ± 2.24	92.79 ± 0.34	12.55 ± 0.58
7	1450	15	277.1	47.10	76.48	93.09	0.076	99.99	0.9239	25.91 ± 308	31.99 ± 376	3.588 ± 0.239	33.53 ± 3.72

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.7 x10^{-17}; m/e39 = 4.3 x10^{-17}; m/e38 = 1.8 x10^{-17}; m/e37 = 2.8 x10^{-17}; m/e36 = 3.0 x10^{-17}), mass discrimination (measured ^{40}Ar/^{36}Ar$_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-09-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ^{40}Ar/^{39}Ar$_K$ = 0.0306; ^{36}Ar/^{37}Ar$_{Ca}$ = 0.00027; ^{39}Ar/^{37}Ar$_{Ca}$ = 0.00077)

[5] J-factor = 0.006904 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR373 Hornblende (21.4mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10[1]	$^{38}Ar/^{39}Ar$[1] x10[-1]	$^{37}Ar/^{39}Ar$[1]	$^{36}Ar/^{39}Ar$[1] x10[-1]	$^{39}Ar_K$[2] (mol) x10[-16]	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10[1]	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10[-3]	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10[-4]
1	750	13	68.70	7.949	7.291	14.97	9.808	3.342	35.68	24.66 ± 1.39	1139 ± 47	1.447 ± 0.023	21.76 ± 0.53
2	950	13	75.22	5.533	9.626	2.370	9.407	6.547	90.74	68.80 ± 1.79	2236 ± 33	1.319 ± 0.031	3.122 ± 0.134
3	1010	13	304.9	28.70	15.95	105.9	11.88	10.60	-	-	0 ± 0	0.324 ± 0.008	34.71 ± 1.27
4	1050	14	21.11	12.35	19.08	5.902	33.57	22.03	17.96	3.848 ± 0.486	232.1 ± 27.5	4.668 ± 0.068	27.76 ± 0.71
5	1150	13	4.295	9.909	18.04	0.1431	126.0	64.97	92.88	4.048 ± 0.056	243.3 ± 3.1	22.97 ± 0.29	2.371 ± 0.107
6	1250	13	4.444	10.66	19.10	0.1727	61.71	85.99	91.27	4.121 ± 0.061	247.4 ± 3.4	22.18 ± 0.28	2.903 ± 0.184
7	750	13	5.010	8.615	15.97	0.2076	41.12	99.99	89.75	4.558 ± 0.089	271.8 ± 4.9	19.73 ± 0.32	3.416 ± 0.231

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.5 $\times10^{-16}$; m/e39 = 3.5 $\times10^{-17}$; m/e38 = 1.1 $\times10^{-17}$; m/e37 = 2.9 $\times10^{-17}$; m/e36 = 1.9 $\times10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-03-2003)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)
[5] J-factor = 0.003567 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR374A Hornblende (19.4mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-2}	$^{37}Ar/^{39}Ar$ [1] x10^{-1}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	750	13	135.2	10.01	7.393	138.1	8.243	7.475	69.81	94.43 ± 0.98	524.0 ± 4.7	7.396 ± 0.047	102.1 ± 1.3
2	950	13	108.3	5.166	15.36	43.30	2.402	9.654	88.17	95.69 ± 1.04	530.1 ± 5.0	9.225 ± 0.069	39.67 ± 2.04
3	1010	13	62.14	9.825	48.90	38.17	1.168	10.71	82.08	51.36 ± 1.70	303.7 ± 9.2	16.04 ± 0.32	59.65 ± 6.38
4	1050	13	44.49	12.50	66.08	24.84	1.553	12.12	84.16	37.76 ± 0.92	228.1 ± 5.2	22.38 ± 0.22	52.47 ± 6.12
5	1150	13	31.74	13.97	70.69	6.164	67.51	73.34	95.64	30.53 ± 0.26	186.6 ± 1.5	31.36 ± 0.25	14.34 ± 0.58
6	1250	13	30.25	13.22	67.06	6.488	16.76	88.54	95.01	28.90 ± 0.17	177.1 ± 1.0	32.93 ± 0.15	16.39 ± 1.12
7	750	13	29.66	12.44	64.13	6.530	12.63	99.99	94.79	28.27 ± 0.17	173.4 ± 1.0	33.59 ± 0.12	17.08 ± 1.47

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.5 x10^{-16}; m/e39 = 3.5 x10^{-17}; m/e38 = 1.1 x10^{-17}; m/e37 = 2.9 x10^{-17}; m/e36 = 1.9 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-03-2003)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)

[5] J-factor = 0.003567 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR15 Muscovite (5.0mg)

	T (°C)	Time (min.)	^{40}Ar/^{39}Ar[1] x10^{-1}	^{38}Ar/^{39}Ar[1] x10^{-3}	^{37}Ar/^{39}Ar[1] x10^{-2}	^{36}Ar/^{39}Ar[1] x10^{-3}	^{39}Ar$_K$[2] (mol) x10^{-15}	Σ ^{39}Ar$_K$ (%)	^{40}Ar*[3] (%)	^{40}Ar*/^{39}Ar$_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	^{39}Ar$_K$/^{40}Ar[6] ± 1σ x10^{-2}	^{36}Ar/^{40}Ar[6] ± 1σ x10^{-5}
1	500	13	404	119.9	13.06	129.6	5.012	0.7263	5.127	20.73 ± 4.95	25.51 ± 6.05	2.477 ± 0.013	321.0 ± 4.1
2	600	13	45.46	17.96	32.38	7.704	11.74	2.427	49.70	22.65 ± 0.91	27.85 ± 1.11	22.14 ± 0.06	168.7 ± 6.8
3	700	13	31.52	13.22	11.70	1.728	39.11	8.095	83.04	26.20 ± 0.27	32.18 ± 0.32	32.04 ± 0.05	54.36 ± 2.85
4	770	13	33.59	12.57	1.018	1.099	45.75	14.72	89.37	30.04 ± 0.28	36.85 ± 0.34	30.04 ± 0.04	32.94 ± 2.83
5	840	13	39.54	12.46	0.589	1.018	111.5	30.89	91.60	36.23 ± 0.12	44.35 ± 0.14	25.49 ± 0.04	25.92 ± 0.91
6	880	13	38.88	12.39	0.5306	0.5185	137.4	50.79	95.26	37.05 ± 0.11	45.34 ± 0.14	25.92 ± 0.04	13.40 ± 0.81
7	920	13	37.88	12.36	1.594	0.6174	115.4	67.51	94.38	35.76 ± 0.12	43.78 ± 0.14	26.61 ± 0.04	16.32 ± 0.87
8	960	13	38.89	12.44	1.159	0.5687	102.2	82.32	94.89	36.92 ± 0.11	45.18 ± 0.14	25.91 ± 0.04	14.66 ± 0.88
9	1000	13	39.06	12.44	1.158	0.6146	73.61	92.98	94.55	36.95 ± 0.16	45.22 ± 0.20	25.80 ± 0.03	15.78 ± 1.36
10	1070	13	40.62	12.43	7.074	0.8909	39.57	98.72	92.84	37.74 ± 0.25	46.17 ± 0.30	24.80 ± 0.04	21.62 ± 2.05
11	1150	13	48.62	12.88	88.82	3.359	7.947	99.87	80.18	39.13 ± 1.15	47.85 ± 1.39	20.68 ± 0.06	64.53 ± 8.02
12	500	13	232	28.96	607.2	63.95	0.9044	99.99	20.39	47.81 ± 11.53	58.30 ± 13.83	4.296 ± 0.049	268.9 ± 16.6

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.9 x10^{-17}; m/e39 = 4.1 x10^{-17}; m/e38 = 1.8 x10^{-17}; m/e37 = 2.7 x10^{-17}; m/e36 = 2.7 x10^{-17}), mass discrimination (measured ^{40}Ar/^{36}Ar = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-19-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ^{40}Ar/^{39}Ar$_K$ = 0.0306; ^{36}Ar/^{37}Ar$_{Ca}$ = 0.00027; ^{39}Ar/^{37}Ar$_{Ca}$ = 0.00077)

[5] J-factor = 0.006869 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR17 Muscovite (5.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-5}
1	500	13	133.1	203.3	24.27	436.0	3.906	0.5408	3.204	42.67 ± 16.80	26.93 ± 10.53	0.751 ± 0.005	327.6 ± 4.2
2	600	13	7.994	16.22	26.07	10.91	10.54	2.000	59.21	47.41 ± 1.99	29.90 ± 1.24	12.56 ± 0.06	136.9 ± 8.3
3	700	13	6.574	12.65	7.003	3.131	29.46	6.079	85.40	56.19 ± 0.76	35.38 ± 0.48	15.28 ± 0.04	47.82 ± 3.86
4	770	13	7.017	12.41	4.649	2.290	33.02	10.65	89.86	63.10 ± 0.61	39.69 ± 0.38	14.31 ± 0.03	32.77 ± 2.87
5	840	13	7.584	12.65	3.902	2.480	86.52	22.63	89.91	68.20 ± 0.32	42.86 ± 0.20	13.24 ± 0.03	32.83 ± 1.19
6	880	13	7.530	12.45	1.879	1.254	194.6	49.57	94.66	71.29 ± 0.30	44.78 ± 0.19	13.33 ± 0.04	16.72 ± 0.72
7	920	13	7.473	12.43	3.106	1.241	165.1	72.43	94.68	70.76 ± 0.25	44.45 ± 0.15	13.44 ± 0.04	16.66 ± 0.63
8	960	13	7.545	12.61	11.19	1.143	95.03	85.59	95.11	71.78 ± 0.30	45.08 ± 0.18	13.31 ± 0.03	15.17 ± 1.16
9	1000	13	7.583	12.47	10.81	1.372	45.79	91.93	94.22	71.48 ± 0.46	44.89 ± 0.28	13.24 ± 0.03	18.12 ± 1.87
10	1070	13	7.663	12.47	28.58	1.881	21.69	94.93	92.29	70.79 ± 0.86	44.47 ± 0.54	13.10 ± 0.03	24.54 ± 3.72
11	1150	13	8.117	13.19	201.2	2.877	16.43	97.21	89.25	72.54 ± 1.14	45.55 ± 0.71	12.36 ± 0.04	34.90 ± 4.64
12	1350	13	9.284	14.91	283.8	5.997	20.16	99.99	80.76	75.05 ± 1.13	47.11 ± 0.70	10.80 ± 0.03	63.98 ± 3.99

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.0 x10^{-16}; m/e39 = 5.6 x10^{-17}; m/e38 = 2.4 x10^{-17}; m/e37 = 5.2 x10^{-17}; m/e36 = 3.5 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 10-18-2002; analyzed: 01-03-2003)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00079)
[5] J-factor = 0.003525 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR30 Muscovite (5.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-2}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	13	46.84	199.4	7.700	147.5	3.179	0.4222	6.885	32.27 ± 8.00	39.59 ± 9.71	2.136 ± 0.012	315.1 ± 5.7
2	600	13	5.335	26.82	29.04	9.380	7.295	1.391	47.76	25.56 ± 1.76	31.43 ± 2.14	18.85 ± 0.06	175.4 ± 11.2
3	700	13	3.434	13.68	5.708	2.356	28.7	5.203	78.88	27.12 ± 0.43	33.33 ± 0.52	29.38 ± 0.04	68.76 ± 4.22
4	770	13	3.344	12.86	0.7149	1.514	44.65	11.13	85.65	28.66 ± 0.26	35.21 ± 0.31	30.18 ± 0.04	45.65 ± 2.60
5	840	13	3.931	12.59	0.2172	1.078	155.5	31.78	91.11	35.82 ± 0.11	43.90 ± 0.13	25.64 ± 0.05	27.62 ± 0.73
6	880	13	3.559	12.47	0.3071	0.6517	117.2	47.35	93.71	33.36 ± 0.12	40.91 ± 0.14	28.34 ± 0.04	18.45 ± 1.02
7	920	13	3.381	12.60	0.686	0.7145	103.4	61.08	92.83	31.39 ± 0.13	38.53 ± 0.16	29.85 ± 0.04	21.27 ± 1.22
8	960	13	3.340	12.46	0.9507	0.5559	148.5	80.80	94.17	31.46 ± 0.10	38.61 ± 0.12	30.21 ± 0.04	16.72 ± 0.84
9	1000	13	3.859	12.48	1.268	0.5907	93.91	93.27	94.68	36.55 ± 0.13	44.78 ± 0.16	26.12 ± 0.04	15.34 ± 1.09
10	1070	13	4.316	12.37	2.460	0.910	41.38	98.77	93.05	40.19 ± 0.28	49.17 ± 0.33	23.33 ± 0.04	21.08 ± 2.11
11	1150	13	5.088	14.04	20.02	3.538	8.568	99.91	78.96	40.29 ± 1.14	49.29 ± 1.37	19.77 ± 0.07	68.88 ± 7.51
12	500	13	34.59	40.20	559.6	100.3	0.6876	99.99	15.41	53.80 ± 20.07	65.53 ± 24.00	2.881 ± 0.033	286.0 ± 19.5

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.8 x10^{-17}; m/e39 = 4.2 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 2.6 x10^{-17}; m/e36 = 2.8 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-18-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006875 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR49 Muscovite (4.8 mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	10	248.5	430.6	58.56	783.8	4.588	0.603	6.684	16.66 ± 2.62	22.81 ± 3.56	4.028 ± 0.02	315.7 ± 3.50
2	600	10	40.96	15.75	111.9	60.42	11.36	2.097	55.58	22.94 ± 0.49	31.33 ± 0.66	24.56 ± 0.15	147.7 ± 3.60
3	700	10	33.60	12.44	66.56	20.66	33.05	6.443	80.96	27.29 ± 0.13	37.21 ± 0.18	29.99 ± 0.08	61.45 ± 1.04
4	780	10	36.44	11.74	6.639	15.95	47.33	12.67	86.20	31.48 ± 0.07	42.85 ± 0.10	27.64 ± 0.03	44.04 ± 0.58
5	820	10	38.16	11.70	1.443	10.51	63.14	20.97	91.06	34.80 ± 0.06	47.32 ± 0.09	26.38 ± 0.03	27.71 ± 0.40
6	860	10	39.26	11.93	1.156	7.284	105.8	34.88	93.79	36.85 ± 0.03	50.07 ± 0.04	25.64 ± 0.01	18.67 ± 0.23
7	900	10	38.49	11.89	0.8148	6.939	123.8	51.16	93.94	36.19 ± 0.07	49.17 ± 0.10	26.15 ± 0.05	18.14 ± 0.22
8	1000	10	36.61	11.75	-	4.694	265.9	86.12	95.44	34.97 ± 0.06	47.55 ± 0.09	27.50 ± 0.04	12.91 ± 0.26
9	1100	10	39.10	11.87	43.84	6.611	64.47	94.60	94.30	36.92 ± 0.15	50.16 ± 0.20	25.74 ± 0.04	16.72 ± 1.18
10	1350	10	42.08	11.92	272.6	14.26	41.04	99.99	89.69	37.84 ± 0.17	51.38 ± 0.23	23.90 ± 0.08	32.37 ± 0.87

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 2.4×10^{-16}; m/e39 = 7.4×10^{-17}; m/e38 = 2.1×10^{-17}; m/e37 = 2.5×10^{-17}; m/e 36 = 1.3×10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 294.7 ± 1.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 08-16-2000; Analyzed: 02-19-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0254; $^{36}Ar/^{39}Ar_{Ca}$ = 0.000265; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00086)

[5] Assumes trapped argon is atmospheric. J-factor = 0.007636 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR68 B Muscovite (5.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	10	248.5	430.6	58.56	783.8	4.588	0.603	6.684	16.66 ± 2.62	22.81 ± 3.56	4.028 ± 0.02	315.7 ± 3.50
2	600	10	40.96	15.75	111.9	60.42	11.36	2.097	55.58	22.94 ± 0.49	31.33 ± 0.66	24.56 ± 0.15	147.7 ± 3.60
3	700	10	33.60	12.44	66.56	20.66	33.05	6.443	80.96	27.29 ± 0.13	37.21 ± 0.18	29.99 ± 0.08	61.45 ± 1.04
4	780	10	36.44	11.74	6.639	15.95	47.33	12.67	86.20	31.48 ± 0.07	42.85 ± 0.10	27.64 ± 0.03	44.04 ± 0.58
5	820	10	38.16	11.70	1.443	10.51	63.14	20.97	91.06	34.80 ± 0.06	47.32 ± 0.09	26.38 ± 0.03	27.71 ± 0.40
6	860	10	39.26	11.93	1.156	7.284	105.8	34.88	93.79	36.85 ± 0.03	50.07 ± 0.04	25.64 ± 0.01	18.67 ± 0.23
7	900	10	38.49	11.89	0.8148	6.939	123.8	51.16	93.94	36.19 ± 0.07	49.17 ± 0.10	26.15 ± 0.05	18.14 ± 0.22
8	1000	10	36.61	11.75	-	4.694	265.9	86.12	95.44	34.97 ± 0.06	47.55 ± 0.09	27.50 ± 0.04	12.91 ± 0.26
9	1100	10	39.10	11.87	43.84	6.611	64.47	94.60	94.30	36.92 ± 0.15	50.16 ± 0.20	25.74 ± 0.04	16.72 ± 1.18
10	1350	10	42.08	11.92	272.6	14.26	41.04	99.99	89.69	37.84 ± 0.17	51.38 ± 0.23	23.90 ± 0.08	32.37 ± 0.87

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.1; m/e39 = 3.3 x10^{-17}; m/e38 = 1.4 x10^{-17}; m/e37 = 2.3 x10^{-17}; m/e36 = 2.3 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-17-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006887 (assumes Fish Canyon sanidine = 27.8 Ma)

6 Corrected for static line blank and nucleogenic interferences

OR70 Muscovite (5.6mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	13	478.4	108.9	75.74	153.8	3.388	0.3887	4.928	23.59 ± 7.26	29.04 ± 8.86	2.091 ± 0.007	321.7 ± 5.1
2	600	13	58.46	17.70	139.5	9.911	7.635	1.265	49.45	28.99 ± 1.49	35.61 ± 1.81	17.19 ± 0.06	169.8 ± 8.6
3	700	13	43.83	13.38	22.69	3.735	24.32	4.055	74.08	32.51 ± 0.50	39.89 ± 0.61	22.97 ± 0.06	85.67 ± 3.79
4	770	13	43.55	12.91	8.508	2.339	38.53	8.476	83.39	36.34 ± 0.28	44.54 ± 0.34	23.12 ± 0.04	54.03 ± 2.11
5	840	13	44.98	12.42	2.494	1.051	156.2	26.40	92.40	41.57 ± 0.13	50.86 ± 0.16	22.38 ± 0.05	23.52 ± 0.71
6	880	13	43.45	12.46	2.076	0.6139	171.1	46.04	95.11	41.34 ± 0.12	50.58 ± 0.15	23.18 ± 0.05	14.21 ± 0.57
7	920	13	41.30	12.56	6.429	0.8189	124.2	60.28	93.39	38.58 ± 0.12	47.25 ± 0.14	24.39 ± 0.04	19.93 ± 0.85
8	960	13	41.57	12.48	5.266	0.6046	164.4	79.14	94.96	39.48 ± 0.12	48.34 ± 0.14	24.24 ± 0.05	14.62 ± 0.64
9	1000	13	42.43	12.35	4.317	0.5396	134.7	94.60	95.51	40.53 ± 0.12	49.60 ± 0.14	23.74 ± 0.04	12.78 ± 0.76
10	1070	13	46.98	12.96	37.50	1.645	24.95	97.46	88.98	41.84 ± 0.40	51.19 ± 0.49	21.43 ± 0.04	35.02 ± 2.86
11	1150	13	49.88	12.80	132.3	2.481	17.84	99.51	84.79	42.35 ± 0.91	51.80 ± 1.10	20.17 ± 0.28	49.33 ± 4.17

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.1 x10^{-17}; m/e39 = 3.3 x10^{-17}; m/e38 = 1.4 x10^{-17}; m/e37 = 2.3 x10^{-17}; m/e36 = 2.3 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-17-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006887 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR77B Muscovite (5.7mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1]	$^{36}Ar/^{39}Ar$ [1] x10^{-4}	$^{39}Ar_K$ [2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-5}
1	500	10	102.8	194.9	0	307.4	4.460	0.6915	11.38	11.73 ± 1.20	16.22 ± 1.65	9.750 ± 0.034	299.7 ± 3.9
2	600	10	31.82	15.16	0	37.34	10.51	2.320	64.28	20.54 ± 0.20	28.30 ± 0.28	31.68 ± 0.16	118.3 ± 1.5
3	680	10	28.15	12.32	0	13.06	24.74	6.156	85.23	24.04 ± 0.14	33.09 ± 0.18	35.84 ± 0.04	46.83 ± 1.59
4	740	13	28.38	11.92	0	7.341	37.80	12.02	91.36	25.96 ± 0.11	35.71 ± 0.15	35.55 ± 0.04	26.09 ± 1.33
5	800	10	30.82	11.82	0	7.426	35.62	17.54	91.95	28.38 ± 0.13	39.00 ± 0.17	32.71 ± 0.03	24.29 ± 1.38
6	850	10	35.33	11.93	0	9.585	60.64	26.94	91.21	32.25 ± 0.08	44.26 ± 0.11	28.50 ± 0.03	27.32 ± 0.68
7	900	13	35.99	11.96	0	5.665	138.2	48.38	94.62	34.06 ± 0.04	46.71 ± 0.06	27.98 ± 0.01	15.85 ± 0.38
8	950	10	34.64	12.00	0	5.359	97.27	63.46	94.66	32.81 ± 0.03	45.00 ± 0.05	29.08 ± 0.01	15.58 ± 0.30
9	1000	10	35.75	11.85	0	4.207	133.5	84.17	95.79	34.26 ± 0.06	46.97 ± 0.08	28.17 ± 0.02	11.85 ± 0.56
10	1150	17	37.37	11.93	0	5.022	99.23	99.56	95.32	35.64 ± 0.05	48.84 ± 0.07	26.94 ± 0.02	13.53 ± 0.38
11	1350	10	64.25	13.09	0	63.90	2.865	99.99	69.67	45.12 ± 1.18	61.61 ± 1.58	15.63 ± 0.03	99.84 ± 6.20

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $9.6x10^{-17}$; m/e39 = $6.6x10^{-17}$; m/e38 = $3.6x10^{-17}$; m/e37 = $4.8x10^{-17}$; m/e 36 = $6.6x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 297.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 08-16-2000; Analyzed: 08-19-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0254;$^{36}Ar/^{39}Ar_{Ca}$ = 0.000265;$^{39}Ar/^{37}Ar_{Ca}$ = 0.00086)

[5] Assumes trapped argon is atmospheric. J-factor = 0.0077 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR83 Muscovite (5.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	10	90.30	42.47	57.41	257.2	9.148	1.049	15.57	14.12 ± 1.83	16.55 ± 2.14	11.10 ± 0.11	285.4 ± 6.70
2	600	10	39.41	13.89	95.58	52.36	21.57	3.525	60.16	23.80 ± 0.99	27.80 ± 1.15	25.52 ± 0.60	132.9 ± 4.50
3	680	10	35.01	12.67	29.79	24.47	39.27	8.030	78.61	27.59 ± 0.29	32.19 ± 0.33	28.74 ± 0.04	70.07 ± 2.76
4	740	14	35.21	12.04	8.793	13.89	58.10	14.69	87.61	30.89 ± 0.11	36.01 ± 0.13	28.58 ± 0.05	39.62 ± 0.86
5	800	10	37.41	12.06	5.330	10.13	51.75	20.63	91.28	34.20 ± 0.17	39.82 ± 0.20	26.89 ± 0.03	27.20 ± 1.52
6	850	10	41.70	11.92	2.774	10.14	112.7	33.56	92.23	38.48 ± 0.09	44.75 ± 0.11	24.11 ± 0.03	24.44 ± 0.66
7	900	15	40.54	11.97	1.753	6.453	219.2	58.70	94.72	38.41 ± 0.06	44.67 ± 0.06	24.80 ± 0.03	15.99 ± 0.25
8	950	10	39.63	11.9	2.502	6.241	132.6	73.92	94.75	37.57 ± 0.02	43.70 ± 0.02	25.37 ± 0.01	15.82 ± 0.12
9	1000	10	40.33	11.9	2.076	5.123	146.1	90.68	95.66	38.60 ± 0.03	44.88 ± 0.03	24.93 ± 0.01	12.76 ± 0.20
10	1150	14	42.05	11.95	22.95	6.641	79.58	99.80	94.79	39.88 ± 0.04	46.36 ± 0.05	23.91 ± 0.01	15.71 ± 0.29
11	1350	10	98.89	17.64	546.0	191.7	1.701	99.99	42.41	42.51 ± 5.02	49.37 ± 5.75	10.13 ± 0.04	192.7 ± 17.2

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 1.8×10^{-16}; m/e39 = 7.9×10^{-17}; m/e38 = 4.3×10^{-17}; m/e37 = 7.0×10^{-17}; m/e 36 = 8.2×10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-10-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0 006526 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR94A Muscovite (3.5mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	13	398	93.16	74.09	125.3	3.386	0.6079	6.927	27.59 ± 7.33	33.95 ± 8.93	2.514 ± 0.010	314.9 ± 6.2
2	600	13	51.87	16.67	172.3	7.913	7.464	1.948	54.44	28.33 ± 1.57	34.84 ± 1.91	19.39 ± 0.06	152.5 ± 10.2
3	700	13	40.01	13.61	179.6	3.119	21.98	5.895	76.46	30.64 ± 0.52	37.66 ± 0.63	25.18 ± 0.05	77.33 ± 4.40
4	770	13	38.94	12.96	9.381	1.859	28.73	11.05	85.04	33.15 ± 0.39	40.70 ± 0.47	25.89 ± 0.04	48.06 ± 3.38
5	840	13	39.95	12.48	5.035	1.594	59.04	21.65	87.41	34.94 ± 0.20	42.88 ± 0.24	25.23 ± 0.03	40.17 ± 1.68
6	880	13	40.03	12.40	2.503	1.119	115.1	42.31	90.96	36.42 ± 0.13	44.67 ± 0.15	25.17 ± 0.03	28.15 ± 0.97
7	920	13	39.36	12.45	2.451	0.981	137.1	66.93	91.84	36.16 ± 0.13	44.36 ± 0.16	25.60 ± 0.04	25.10 ± 1.00
8	960	13	40.8	12.44	4.521	0.9181	107.1	86.15	92.58	37.78 ± 0.16	46.32 ± 0.19	24.70 ± 0.04	22.64 ± 1.21
9	1000	13	41.38	12.44	4.820	0.9487	50.60	95.24	92.44	38.27 ± 0.23	46.92 ± 0.28	24.35 ± 0.03	23.07 ± 1.85
10	1070	13	44.63	12.83	29.17	2.653	12.61	97.50	81.63	36.51 ± 0.83	44.78 ± 1.00	22.56 ± 0.05	59.69 ± 6.25
11	1150	13	48.25	13.40	125	3.654	9.680	99.24	77.01	37.25 ± 1.12	45.68 ± 1.36	20.86 ± 0.05	75.51 ± 7.89
12	1350	13	82.17	14.20	76.05	15.10	4.248	99.99	45.27	37.32 ± 2.89	45.76 ± 3.50	12.21 ± 0.05	184.1 ± 11.9

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.6 x10^{-17}; m/e39 = 3.7 x10^{-17}; m/e38 = 1.8 x10^{-17}; m/e37 = 2.7 x10^{-17}; m/e36 = 2.5 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-18-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006884 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR113 Muscovite (5.2mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-4}	$^{39}Ar_K$ [2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-5}
1	500	10	189.5	91.11	37.10	604.9	12.18	1.262	5.542	10.52 ± 0.91	12.35 ± 1.07	5.284 ± 0.01	319.6 ± 1.60
2	600	10	33.30	14.19	27.02	37.96	20.62	3.398	65.41	21.88 ± 0.27	25.60 ± 0.31	30.24 ± 0.08	114.5 ± 2.60
3	680	10	29.52	12.64	19.52	15.70	44.42	7.998	83.38	24.68 ± 0.10	28.85 ± 0.12	34.13 ± 0.09	53.38 ± 0.84
4	740	15	28.05	12.03	16.11	7.478	69.27	15.17	91.22	25.64 ± 0.12	29.96 ± 0.14	35.93 ± 0.02	26.69 ± 1.41
5	800	10	29.79	11.94	9.757	7.324	66.71	22.08	91.86	27.41 ± 0.07	32.01 ± 0.08	33.82 ± 0.03	24.67 ± 0.70
6	850	10	33.59	11.93	5.139	8.020	130.9	35.64	92.22	31.00 ± 0.07	36.17 ± 0.08	29.97 ± 0.02	23.99 ± 0.67
7	900	13	33.56	11.86	2.649	5.766	252.1	61.74	94.22	31.64 ± 0.06	36.90 ± 0.06	29.99 ± 0.05	17.27 ± 0.20
8	950	10	31.51	11.96	6.921	5.364	132.9	75.50	94.20	29.71 ± 0.04	34.67 ± 0.04	31.96 ± 0.02	17.08 ± 0.31
9	1000	10	31.80	11.93	4.114	4.359	141.6	90.17	95.17	30.30 ± 0.44	35.35 ± 0.51	31.66 ± 0.44	13.76 ± 0.39
10	1150	13	33.19	12.05	25.53	6.113	86.06	99.08	93.83	31.18 ± 0.08	36.37 ± 0.09	30.34 ± 0.03	18.31 ± 0.72
11	1350	10	48.91	12.40	89.43	46.63	8.893	99.99	70.95	34.99 ± 0.89	40.77 ± 1.03	20.54 ± 0.14	95.22 ± 5.78

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $2.2x10^{-16}$; m/e39 = $8.3x10^{-17}$; m/e38 = $4.5x10^{-17}$; m/e37 = $7.0x10^{-17}$; m/e 36 = $8.7x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated06-17-2001; Analyzed: 09-11-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224;$^{36}Ar/^{39}Ar_{Ca}$ = 0.0003;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006532 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR130 Muscovite (5.6mg)

	T (°C)	Time (min.)	^{40}Ar/^{39}Ar[1] x10^{-1}	^{38}Ar/^{39}Ar[1] x10^{-3}	^{37}Ar/^{39}Ar[1] x10^{-3}	^{36}Ar/^{39}Ar[1] x10^{-3}	^{39}Ar$_K$[2] (mol) x10^{-15}	Σ ^{39}Ar$_K$ (%)	^{40}Ar*[3] (%)	^{40}Ar*/^{39}Ar$_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	^{39}Ar$_K$/^{40}Ar[6] ± 1σ x10^{-2}	^{36}Ar/^{40}Ar[6] ± 1σ x10^{-5}
1	500	13	365.2	116.7	67.90	118.1	3.974	0.4381	4.394	16.06 ± 6.06	19.74 ± 7.41	2.740 ± 0.011	323.5 ± 5.6
2	600	13	46.98	17.44	47.50	7.896	10.65	1.612	49.65	23.38 ± 1.03	28.66 ± 1.25	21.43 ± 0.06	168.9 ± 7.4
3	700	13	33.27	13.19	18.01	2.069	35.53	5.529	80.67	26.86 ± 0.30	32.89 ± 0.37	30.34 ± 0.05	62.62 ± 3.05
4	770	13	33.51	12.30	8.186	1.169	46.13	10.61	88.74	29.76 ± 0.26	36.41 ± 0.31	30.11 ± 0.04	35.12 ± 2.60
5	840	13	38.46	12.46	5.555	1.502	95.52	21.15	87.65	33.72 ± 0.13	41.20 ± 0.16	26.21 ± 0.04	39.32 ± 1.01
6	880	13	38.58	12.45	1.736	0.7252	219.7	45.36	93.64	36.13 ± 0.11	44.10 ± 0.13	26.13 ± 0.06	18.94 ± 0.61
7	920	13	37.77	12.37	1.621	0.7223	189.9	66.30	93.53	35.33 ± 0.10	43.14 ± 0.12	26.69 ± 0.05	19.27 ± 0.62
8	960	13	38.27	12.40	2.313	0.5954	180.5	86.20	94.59	36.21 ± 0.10	44.20 ± 0.12	26.34 ± 0.05	15.66 ± 0.66
9	1000	13	38.61	12.32	2.851	0.5897	85.50	95.62	94.67	36.57 ± 0.14	44.63 ± 0.16	26.11 ± 0.04	15.37 ± 1.09
10	1070	13	40.43	12.76	31.85	1.493	24.99	98.38	88.30	35.74 ± 0.48	43.64 ± 0.58	24.92 ± 0.05	36.98 ± 3.98
11	1150	13	42.81	12.75	168.3	2.333	13.05	99.81	83.33	35.75 ± 0.75	43.64 ± 0.90	23.53 ± 0.06	53.82 ± 5.91
12	500	13	136.1	21.27	239.1	35.13	1.685	99.99	23.53	32.18 ± 5.96	39.33 ± 7.21	7.363 ± 0.069	258.2 ± 14.7

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.2 x10^{-17}; m/e39 = 3.6 x10^{-17}; m/e38 = 1.6 x10^{-17}; m/e37 = 2.7 x10^{-17}; m/e36 = 2.4 x10^{-17}), mass discrimination (measured ^{40}Ar/^{36}Ar$_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-19-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ^{40}Ar/^{39}Ar$_K$ = 0.0306; ^{36}Ar/^{37}Ar$_{Ca}$ = 0.00027; ^{39}Ar/^{37}Ar$_{Ca}$ = 0.00077)
[5] J-factor = 0.006850 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interference

OR148 Muscovite (5.4mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	13	273.6	72.13	101	877.2	5.292	0.6292	5.169	14.15 ± 3.89	17.47 ± 4.78	3.659 ± 0.011	320.9 ± 4.8
2	600	13	45.37	16.27	61.04	75.35	12.85	2.157	50.26	22.85 ± 0.97	28.12 ± 1.18	22.19 ± 0.05	166.8 ± 7.3
3	700	13	36.45	12.83	26.71	28.35	37.69	6.638	76.18	27.79 ± 0.36	34.15 ± 0.44	27.66 ± 0.04	78.23 ± 3.36
4	770	13	36.23	12.61	17.68	19.57	46.06	12.11	83.18	30.15 ± 0.28	37.02 ± 0.34	27.84 ± 0.04	54.34 ± 2.59
5	840	13	38.42	12.48	8.393	15.04	99.48	23.94	87.63	33.68 ± 0.15	41.30 ± 0.18	26.23 ± 0.04	39.38 ± 1.23
6	880	13	38.12	12.41	4.458	7.771	163.2	43.34	93.17	35.52 ± 0.11	43.53 ± 0.14	26.44 ± 0.05	20.52 ± 0.76
7	920	13	37.48	12.37	4.894	7.101	190	65.93	93.58	35.08 ± 0.10	42.99 ± 0.12	26.90 ± 0.05	19.07 ± 0.65
8	960	13	37.65	12.37	9.722	6.385	154.7	84.32	94.18	35.46 ± 0.11	43.46 ± 0.13	26.78 ± 0.05	17.03 ± 0.76
9	1000	13	37.75	12.39	7.955	6.573	73.59	93.07	94.02	35.51 ± 0.17	43.52 ± 0.21	26.70 ± 0.04	17.49 ± 1.49
10	1070	13	38.73	12.60	50.52	17.58	18.34	95.25	85.77	33.27 ± 0.60	40.80 ± 0.72	26.03 ± 0.06	45.40 ± 5.19
11	1150	13	42.23	13.18	184.9	24.68	14.86	97.02	82.21	34.78 ± 0.72	42.63 ± 0.87	23.85 ± 0.06	57.69 ± 5.74
12	500	13	44.76	12.94	105.6	28.86	25.10	99.99	80.37	36.01 ± 0.47	44.12 ± 0.57	22.49 ± 0.04	64.28 ± 3.51

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.4 x10^{-17}; m/e39 = 3.8 x10^{-17}; m/e38 = 1.6 x10^{-17}; m/e37 = 2.4 x10^{-17}; m/e36 = 2.5 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-18-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006875 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR164 Muscovite (6.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-14}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	10	179.2	108.0	71.84	555.1	1.013	0.8827	8.338	15.05 ± 1.51	17.66 ± 1.77	5.586 ± 0.01	310.0 ± 2.80
2	600	10	36.47	14.04	74.45	37.94	2.184	2.785	67.69	25.11 ± 0.29	29.37 ± 0.33	27.58 ± 0.04	104.1 ± 2.60
3	680	10	32.71	12.19	23.56	13.04	4.709	6.887	86.83	28.65 ± 0.16	33.48 ± 0.18	30.78 ± 0.03	39.91 ± 1.64
4	740	14	33.97	11.77	11.50	7.440	6.877	12.88	92.43	31.56 ± 0.12	36.84 ± 0.14	29.63 ± 0.02	21.95 ± 1.16
5	800	12	36.33	11.79	7.715	7.389	7.196	19.15	93.06	33.93 ± 0.11	39.57 ± 0.13	27.70 ± 0.05	20.40 ± 0.86
6	850	10	38.64	11.98	4.401	7.578	13.36	30.78	93.53	36.18 ± 0.05	42.17 ± 0.06	26.03 ± 0.01	19.69 ± 0.42
7	900	15	36.63	11.90	1.648	5.399	44.44	69.50	94.96	34.81 ± 0.07	40.60 ± 0.08	27.47 ± 0.05	14.82 ± 0.18
8	950	10	38.65	11.90	6.758	4.897	17.63	84.85	95.50	36.99 ± 0.06	43.10 ± 0.07	26.02 ± 0.03	12.69 ± 0.37
9	1000	10	38.48	11.85	5.980	4.234	8.903	92.61	95.79	37.01 ± 0.08	43.13 ± 0.09	26.14 ± 0.03	11.02 ± 0.61
10	1150	14	38.69	12.33	56.61	6.668	6.106	97.93	93.97	36.55 ± 0.09	42.60 ± 0.11	25.99 ± 0.03	16.89 ± 0.68
11	1350	10	44.17	12.36	111.7	20.06	2.378	99.99	85.49	38.12 ± 0.28	44.40 ± 0.32	22.75 ± 0.02	44.89 ± 2.12

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 6.0×10^{-16}; m/e39 = 8.0×10^{-17}; m/e38 = 4.4×10^{-17}; m/e37 = 7.1×10^{-17}; m/e 36 = 8.5×10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-12-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006537 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR213 Muscovite (5.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$ x10^{-1}	$^{38}Ar/^{39}Ar^{1}$ x10^{-3}	$^{37}Ar/^{39}Ar^{1}$ x10^{-3}	$^{36}Ar/^{39}Ar^{1}$ x10^{-4}	$^{39}Ar_K{}^{2}$ (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^{4}$ ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar^{6}$ ± 1σ x10^{-5}
1	500	15	144.6	72.10	84.05	426.2	2.942	0.513	12.69	18.39 ± 4.32	22.62 ± 5.28	6.932 ± 0.04	295.3 ± 10.1
2	600	19	54.39	18.61	206.9	114.5	22.59	4.449	37.53	20.43 ± 0.60	25.11 ± 0.74	18.49 ± 0.03	210.6 ± 3.74
3	700	15	31.30	13.01	278.3	25.98	44.14	12.14	75.15	23.55 ± 0.28	28.91 ± 0.34	32.25 ± 0.04	81.38 ± 3.06
4	770	19	31.35	12.54	18.84	14.64	44.00	19.81	85.21	26.73 ± 0.20	32.78 ± 0.24	32.22 ± 0.04	47.01 ± 2.12
5	840	15	37.10	12.57	11.94	13.11	49.24	28.38	88.71	32.93 ± 0.19	40.30 ± 0.23	27.18 ± 0.03	35.54 ± 1.73
6	880	15	37.70	12.51	7.950	9.609	86.20	43.40	91.64	34.56 ± 0.12	42.27 ± 0.15	26.74 ± 0.03	25.64 ± 1.01
7	920	19	37.24	12.64	7.350	9.963	104.5	61.61	91.26	33.99 ± 0.12	41.58 ± 0.14	27.08 ± 0.04	26.92 ± 0.96
8	960	15	38.74	12.70	9.010	10.73	59.47	71.97	91.00	35.27 ± 0.16	43.13 ± 0.19	26.02 ± 0.03	27.85 ± 1.37
9	1000	15	42.75	12.65	12.86	9.468	54.56	81.48	92.72	39.66 ± 0.17	48.42 ± 0.21	23.56 ± 0.03	22.23 ± 1.30
10	1070	19	47.01	12.53	19.55	8.490	73.47	94.28	94.02	44.21 ± 0.16	53.90 ± 0.19	21.41 ± 0.03	18.07 ± 1.01
11	1150	15	49.77	12.95	74.46	15.80	25.00	98.64	90.05	44.86 ± 0.32	54.68 ± 0.38	20.21 ± 0.04	31.54 ± 2.07
12	1350	15	82.79	15.63	393.9	97.93	7.829	99.99	64.95	53.88 ± 1.22	65.48 ± 1.45	12.12 ± 0.04	117.4 ± 4.87

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $7.8x10^{-17}$; m/e39 = $3.5x10^{-17}$; m/e38 = $1.5x10^{-17}$; m/e37 = $2.5x10^{-17}$; m/e36 = $2.5x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 05-03-2002; Analyzed: 08-01-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000271; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00772)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006859 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR213A Muscovite (4.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	15	338.2	84.75	55.19	103.3	3.118	0.631	9.669	32.75 ± 4.85	40.06 ± 5.87	2.960 ± 0.01	305.6 ± 4.81
2	600	19	129.9	21.91	170.6	34.12	9.564	2.568	22.25	28.9 ± 2.03	35.46 ± 2.46	7.713 ± 0.03	262.9 ± 5.25
3	700	15	47.85	13.76	163.3	5.841	25.18	7.665	63.49	30.42 ± 0.56	37.25 ± 0.68	21.03 ± 0.05	121.91 ± 3.92
4	770	19	45.30	12.79	6.101	3.149	37.12	15.18	78.72	35.69 ± 0.26	43.62 ± 0.31	22.22 ± 0.03	69.96 ± 1.89
5	840	15	48.39	12.58	2.308	1.879	71.57	29.67	87.86	42.54 ± 0.18	51.87 ± 0.22	20.79 ± 0.03	39.06 ± 1.15
6	880	15	47.07	12.53	1.915	1.275	59.05	41.62	91.30	43.00 ± 0.19	52.42 ± 0.23	21.38 ± 0.03	27.24 ± 1.27
7	920	19	46.11	12.51	1.656	1.387	40.20	49.76	90.37	41.70 ± 0.23	50.86 ± 0.28	21.83 ± 0.04	30.28 ± 1.59
8	960	15	46.27	12.50	1.539	1.134	84.94	66.96	92.06	42.62 ± 0.13	51.96 ± 0.16	21.75 ± 0.03	24.66 ± 0.84
9	1000	15	48.64	12.46	2.031	1.023	59.55	79.02	93.11	45.32 ± 0.18	55.20 ± 0.21	20.69 ± 0.03	21.16 ± 1.13
10	1070	24	48.81	12.44	2.471	0.821	89.78	97.19	94.37	46.08 ± 0.14	56.12 ± 0.17	20.62 ± 0.04	16.91 ± 0.78
11	1150	16	55.74	13.54	30.35	2.810	10.64	99.35	84.38	47.16 ± 0.73	57.41 ± 0.88	18.04 ± 0.05	50.54 ± 4.37
12	1350	16	167.3	19.64	285.1	31.63	3.219	99.99	43.95	73.73 ± 4.05	88.98 ± 4.77	5.988 ± 0.03	189.0 ± 8.11

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 9.8x10^{-17}; m/e39 = 3.9x10^{-17}; m/e38 = 1.7x10^{-17}; m/e37 = 2.8x10^{-17}; m/e36 = 2.7x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 05-03-2002; Analyzed: 07-31-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000271; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00772)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006857 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR224B Muscovite (5.7mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$ $\times10^{-1}$	$^{38}Ar/^{39}Ar^{1}$ $\times10^{-3}$	$^{37}Ar/^{39}Ar^{1}$ $\times10^{-2}$	$^{36}Ar/^{39}Ar^{1}$ $\times10^{-3}$	$^{39}Ar_K{}^{2}$ (mol) $\times10^{-15}$	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^{4}$ ± 1σ $\times10^{-1}$	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1σ $\times10^{-2}$	$^{36}Ar/^{40}Ar^{6}$ ± 1σ $\times10^{-5}$
1	500	13	264.2	73.45	8.482	83.15	7.238	0.8906	6.902	18.25 ± 3.30	22.35 ± 4.01	3.789 ± 0.014	315.0 ± 4.2
2	600	13	40.68	15.67	11.88	5.976	20.17	3.372	55.99	22.81 ± 0.85	27.90 ± 1.03	24.77 ± 0.05	147.2 ± 7.1
3	700	13	30.65	13.13	5.268	1.686	66.21	11.52	82.83	25.40 ± 0.21	31.04 ± 0.25	32.95 ± 0.04	55.10 ± 2.25
4	770	13	32.52	12.56	0.9341	1.091	68.47	19.94	89.12	29.00 ± 0.18	35.39 ± 0.21	31.04 ± 0.03	33.80 ± 1.82
5	840	13	38.85	12.58	0.7743	1.424	110.1	33.49	88.37	34.34 ± 0.17	41.84 ± 0.20	25.94 ± 0.04	36.90 ± 1.36
6	880	13	39.35	12.54	0.9224	0.8533	146.5	51.52	92.81	36.53 ± 0.12	44.47 ± 0.14	25.61 ± 0.05	21.79 ± 0.79
7	920	13	38.91	12.53	2.853	0.8649	133.8	67.98	92.68	36.07 ± 0.12	43.92 ± 0.15	25.91 ± 0.04	22.21 ± 0.93
8	960	13	39.36	12.34	1.739	0.7826	129.3	83.89	93.36	36.76 ± 0.13	44.75 ± 0.16	25.60 ± 0.04	19.92 ± 1.01
9	1000	13	39.98	12.44	1.373	0.7641	99.04	96.08	93.59	37.43 ± 0.15	45.55 ± 0.18	25.20 ± 0.04	19.17 ± 1.22
10	1070	13	42.01	13.09	18.95	1.424	26.45	99.33	89.52	37.66 ± 0.53	45.83 ± 0.64	23.97 ± 0.04	32.90 ± 4.26
11	1150	13	53.07	14.01	120.5	5.154	4.501	99.88	72.18	38.53 ± 2.45	46.88 ± 2.94	18.93 ± 0.08	91.49 ± 15.60
12	500	13	215.1	31.16	331.1	57.36	0.9352	99.99	22.14	48.03 ± 13.08	58.25 ± 15.61	4.645 ± 0.035	262.9 ± 20.5

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.0 $\times10^{-17}$; m/e39 = 4.0 $\times10^{-17}$; m/e38 = 1.7 $\times10^{-17}$; m/e37 = 2.8 $\times10^{-17}$; m/e36 = 2.6 $\times10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-20-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006832 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR232A Muscovite (5.7mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-2}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	15	34.53	144.4	254.4	369.3	-	-	962.0	-	0 ± 0	29.16 ± 7.77	10771 ± 1051
2	600	19	74.33	19.48	13.11	17.16	16.91	2.214	31.47	23.42 ± 1.08	28.64 ± 1.31	13.51 ± 0.03	231.4 ± 4.91
3	700	15	35.90	12.71	8.172	2.019	40.70	7.545	82.64	29.69 ± 0.24	36.24 ± 0.29	28.10 ± 0.04	56.11 ± 2.26
4	770	19	38.20	12.43	0.649	1.279	54.38	14.67	89.26	34.12 ± 0.19	41.58 ± 0.23	26.39 ± 0.04	33.71 ± 1.64
5	840	15	43.52	12.52	0.293	1.311	63.68	23.01	90.36	39.34 ± 0.15	47.86 ± 0.18	23.14 ± 0.02	30.33 ± 1.15
6	880	15	43.74	12.46	0.193	1.156	34.66	27.55	91.42	40.02 ± 0.29	48.67 ± 0.34	23.02 ± 0.03	26.60 ± 2.17
7	920	19	44.66	12.39	0.169	1.013	109.2	41.85	92.59	41.36 ± 0.14	50.28 ± 0.17	22.55 ± 0.04	22.84 ± 0.96
8	960	15	44.66	12.48	0.080	0.914	231.4	72.16	93.25	41.66 ± 0.13	50.64 ± 0.15	22.54 ± 0.05	20.59 ± 0.64
9	1000	15	46.17	12.47	0.068	0.799	118.2	87.63	94.20	43.50 ± 0.12	52.85 ± 0.15	21.80 ± 0.03	17.42 ± 0.73
10	1070	19	47.10	12.50	0.269	0.900	56.56	95.04	93.66	44.13 ± 0.18	53.61 ± 0.21	21.37 ± 0.04	19.21 ± 1.15
11	1150	15	50.29	13.04	1.062	1.410	16.46	97.20	90.98	45.82 ± 0.57	55.63 ± 0.69	20.01 ± 0.04	28.15 ± 3.83
12	1350	15	58.29	12.75	0.893	2.823	21.39	99.99	85.09	49.64 ± 0.54	60.19 ± 0.65	17.25 ± 0.03	48.66 ± 3.11

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 8.6x10^{-17}; m/e39 = 4.2x10^{-17}; m/e38 = 1.7x10^{-17}; m/e37 = 2.9x10^{-17}; m/e 36 = 2.7x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 05-03-2002; Analyzed: 08-02-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000271; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000772)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006834 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR246 Muscovite (5.6mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	500	15	157.5	82.77	88.16	467.0	4.247	0.701	12.20	19.26 ± 2.94	23.65 ± 3.59	6.362 ± 0.02	297.0 ± 6.30
2	600	19	55.35	19.91	175.7	117.2	11.55	2.610	37.05	20.56 ± 0.84	25.24 ± 1.03	18.16 ± 0.04	212.1 ± 5.14
3	700	15	38.07	13.53	515.5	34.37	33.44	8.133	73.52	28.03 ± 0.33	34.33 ± 0.40	26.47 ± 0.03	87.30 ± 2.94
4	770	19	38.21	12.58	14.24	20.64	40.37	14.80	83.19	31.82 ± 0.24	38.92 ± 0.30	26.38 ± 0.04	54.36 ± 2.12
5	840	15	43.46	12.53	5.003	14.09	80.94	28.17	89.69	39.00 ± 0.13	47.58 ± 0.16	23.17 ± 0.03	32.61 ± 0.93
6	880	15	43.16	12.44	2.508	8.630	87.77	42.67	93.35	40.31 ± 0.12	49.16 ± 0.15	23.34 ± 0.03	20.12 ± 0.86
7	920	15	41.60	12.52	2.679	9.870	48.59	50.70	92.19	38.38 ± 0.52	46.84 ± 0.63	24.22 ± 0.30	23.89 ± 0.60
8	960	15	42.95	12.59	2.540	10.56	79.59	63.84	91.99	39.53 ± 0.14	48.22 ± 0.17	23.45 ± 0.01	24.74 ± 1.13
9	1000	15	47.76	12.62	3.143	12.98	66.44	74.82	91.29	43.63 ± 0.17	53.15 ± 0.21	21.07 ± 0.03	27.33 ± 1.18
10	1070	19	48.52	12.46	3.656	7.946	91.40	89.92	94.51	45.87 ± 0.13	55.84 ± 0.16	20.74 ± 0.03	16.46 ± 0.76
11	1150	15	48.48	12.43	10.22	6.654	61.04	99.99	95.28	46.21 ± 0.17	56.25 ± 0.20	20.76 ± 0.03	13.75 ± 1.07

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $9.0x10^{-17}$; m/e39 = $4.1x10^{-17}$; m/e38 = $1.6x10^{-17}$; m/e37 = $2.7x10^{-17}$; m/e 36 = $2.6x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 05-03-2002; Analyzed: 08-01-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0306;$^{36}Ar/^{37}Ar_{Ca}$ = 0.000271;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000772)
[5] Assumes trapped argon is atmospheric. J-factor = 0.006853 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR306 Muscovite (5.4mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	500	11	218.9	147.9	48.62	68.03	1.401	0.876	7.970	17.69 ± 9.34	20.79 ± 10.9	4.573 ± 0.11	31.10 ± 1.41
2	600	12	117.5	50.51	51.08	33.73	1.900	2.065	14.75	17.67 ± 4.41	20.77 ± 5.15	8.525 ± 0.09	28.74 ± 1.26
3	680	10	81.50	24.38	53.34	20.92	2.942	3.905	23.51	19.52 ± 1.10	22.93 ± 1.29	12.30 ± 0.06	25.71 ± 0.45
4	740	19	55.40	18.74	42.08	10.41	6.501	7.971	43.60	24.46 ± 1.08	28.67 ± 1.25	18.12 ± 0.06	18.84 ± 0.65
5	800	10	49.82	15.89	33.31	8.486	4.285	10.65	48.30	24.55 ± 0.88	28.79 ± 1.02	20.16 ± 0.08	17.09 ± 0.59
6	850	10	49.90	14.11	95.08	5.688	6.330	14.61	65.17	32.96 ± 1.25	38.54 ± 1.44	20.13 ± 0.02	11.39 ± 0.85
7	900	13	49.42	13.15	117.6	4.348	9.843	20.77	73.12	36.46 ± 0.31	42.58 ± 0.36	20.32 ± 0.02	8.767 ± 0.21
8	950	10	49.33	13.67	40.75	3.457	7.821	25.66	78.01	38.93 ± 0.84	45.43 ± 0.97	20.36 ± 0.15	7.015 ± 0.53
9	1000	10	50.76	12.66	13.44	3.563	11.10	32.60	78.19	40.02 ± 0.70	46.69 ± 0.81	19.79 ± 0.01	7.043 ± 0.47
10	1150	15	51.60	12.97	7.216	2.257	32.02	52.63	86.35	44.71 ± 0.36	52.08 ± 0.41	19.46 ± 0.12	4.389 ± 0.11
11	1350	10	53.84	12.87	4.798	1.852	75.75	99.99	89.28	48.15 ± 0.10	56.03 ± 0.12	18.65 ± 0.02	3.451 ± 0.06

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $3.3x10^{-16}$; m/e39 = $8.8x10^{-17}$; m/e38 = $4.8x10^{-17}$; m/e37 = $7.9x10^{-17}$; m/e 36 = $9.1x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-17-2001)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)
[5] Assumes trapped argon is atmospheric. J-factor = 0.006551 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR307 Muscovite (4.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	10	222.6	275.6	17.43	716.5	8.307	0.876	4.785	10.67 ± 1.49	14.73 ± 2.05	4.496 ± 0.01	322.2 ± 2.30
2	600	10	33.20	15.21	42.52	41.84	18.76	2.854	61.80	20.61 ± 0.14	28.35 ± 0.19	30.35 ± 0.10	126.7 ± 1.10
3	700	10	28.64	12.58	19.47	17.61	54.70	8.621	80.84	23.20 ± 0.06	31.86 ± 0.08	35.23 ± 0.03	61.85 ± 0.61
4	780	10	30.14	11.79	9.311	11.22	78.03	16.85	88.06	26.57 ± 0.08	36.46 ± 0.10	33.47 ± 0.01	37.47 ± 0.86
5	820	10	33.34	11.95	6.722	12.92	63.26	23.52	87.68	29.28 ± 0.15	40.12 ± 0.21	30.22 ± 0.03	38.98 ± 1.53
6	860	10	35.99	12.00	4.554	12.09	98.07	33.86	89.30	32.17 ± 0.03	44.04 ± 0.05	27.98 ± 0.02	33.80 ± 0.22
7	900	10	33.11	11.79	0.615	8.643	120.4	46.55	91.45	30.31 ± 0.05	41.52 ± 0.07	30.43 ± 0.04	26.30 ± 0.24
8	1000	10	33.45	11.89	1.393	7.060	131.2	60.38	92.94	31.11 ± 0.04	42.61 ± 0.05	30.12 ± 0.03	21.26 ± 0.22
9	1000	10	33.45	11.89	1.393	7.060	258.1	87.60	92.94	31.11 ± 0.04	42.61 ± 0.05	30.12 ± 0.03	21.26 ± 0.22
10	1100	10	39.13	11.81	7.144	7.819	103.9	98.55	93.38	36.57 ± 0.04	49.98 ± 0.06	25.73 ± 0.02	20.07 ± 0.30
11	1350	10	43.70	12.04	360.6	14.69	13.78	99.99	89.64	39.40 ± 0.19	53.79 ± 0.25	23.01 ± 0.05	31.62 ± 1.27

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 2.0x10^{-16}; m/e39 = 7.0x10^{-17}; m/e38 = 2.0x10^{-17}; m/e37 = 2.6x10^{-17}; m/e36 = 1.3x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 294.7 ± 1.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 08-16-2000; Analyzed: 02-21-2001)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0254;$^{36}Ar/^{39}Ar_{Ca}$ = 0.000265;$^{39}Ar/^{37}Ar_{Ca}$ = 0.00086)
[5] Assumes trapped argon is atmospheric. J-factor = 0.007682 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR308 Muscovite (5.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] $\pm$ 1σ x10^{-1}	Age[5] $\pm$ 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] $\pm$ 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] $\pm$ 1σ x10^{-5}
1	500	10	118.0	102.4	62.98	352.0	6.846	0.648	11.62	13.83 ± 0.98	16.28 ± 1.15	8.489 ± 0.02	298.7 ± 2.80
2	600	10	44.27	14.51	71.17	66.84	15.79	2.144	53.96	24.36 ± 0.44	28.57 ± 0.51	22.70 ± 0.02	151.3 ± 3.40
3	680	10	33.48	12.71	54.72	20.43	43.38	6.252	80.55	27.27 ± 0.18	31.95 ± 0.21	30.07 ± 0.04	60.94 ± 1.74
4	740	13	34.78	12.08	8.668	13.16	63.12	12.23	87.55	30.67 ± 0.19	35.90 ± 0.23	28.94 ± 0.02	38.03 ± 1.90
5	800	10	37.72	11.93	6.408	11.33	56.45	17.58	89.96	34.15 ± 0.16	39.93 ± 0.19	26.67 ± 0.03	30.17 ± 1.43
6	850	10	40.81	12.12	4.328	11.68	99.91	27.04	90.76	37.14 ± 0.04	43.38 ± 0.05	24.64 ± 0.01	28.74 ± 0.35
7	900	13	42.49	11.98	1.987	8.130	285.6	54.09	93.76	39.86 ± 0.05	46.52 ± 0.06	23.66 ± 0.02	19.22 ± 0.23
8	950	10	40.40	12.02	3.603	7.256	193.7	72.43	94.06	38.04 ± 0.04	44.42 ± 0.05	24.89 ± 0.01	18.03 ± 0.32
9	1000	10	40.83	11.95	2.499	6.207	177.2	89.22	94.88	38.78 ± 0.05	45.27 ± 0.06	24.62 ± 0.02	15.27 ± 0.34
10	1150	14	41.73	12.10	33.94	7.414	109.1	99.55	94.18	39.35 ± 0.35	45.93 ± 0.40	24.09 ± 0.17	17.62 ± 1.42
11	1350	10	86.00	15.49	453.0	156.7	4.753	99.99	45.85	39.90 ± 1.58	46.56 ± 1.82	11.65 ± 0.01	181.1 ± 6.20

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 5.4×10^{-16}; m/e39 = 1.0×10^{-16}; m/e38 = 5.4×10^{-17}; m/e37 = 8.7×10^{-17}; m/e 36 = 1.0×10^{-16}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-19-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006553 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR312A Muscovite (5.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	500	10	45.02	358.6	62.93	151.7	1.161	0.6647	0.371	1.686 ± 8.66	1.994 ± 10.2	2.222 ± 0.03	33.71 ± 0.65
2	600	11	21.14	161.4	49.30	69.55	1.239	1.374	2.634	5.661 ± 3.88	6.686 ± 4.58	4.736 ± 0.02	32.93 ± 0.62
3	680	10	14.24	64.53	69.55	42.21	1.328	2.135	11.99	17.46 ± 2.87	20.54 ± 3.36	7.036 ± 0.053	29.69 ± 0.67
4	740	14	8.765	26.37	51.10	23.14	2.429	3.525	21.36	19.10 ± 1.42	22.46 ± 1.66	11.44 ± 0.10	26.45 ± 0.51
5	800	10	5.341	17.58	19.11	10.41	2.350	4.871	40.63	22.43 ± 1.62	26.35 ± 1.89	18.80 ± 0.10	19.57 ± 1.02
6	850	10	4.283	15.79	26.20	7.259	4.252	7.305	48.35	21.18 ± 1.22	24.89 ± 1.42	23.47 ± 0.10	17.02 ± 0.96
7	900	10	3.953	13.26	54.56	4.806	7.190	11.42	62.72	25.15 ± 1.63	29.52 ± 1.90	25.44 ± 0.13	12.19 ± 1.40
8	900	10	3.953	13.26	54.56	4.806	7.190	15.54	62.72	25.15 ± 1.63	29.52 ± 1.90	25.44 ± 0.13	12.19 ± 1.40
9	950	10	3.625	12.94	28.39	3.648	6.905	19.49	68.60	25.27 ± 0.67	29.66 ± 0.78	27.76 ± 0.17	10.10 ± 0.60
10	1000	10	3.730	12.56	9.021	3.583	10.75	25.64	70.33	26.50 ± 0.33	31.09 ± 0.38	26.97 ± 0.15	9.656 ± 0.24
11	1150	17	3.387	12.23	5.987	1.469	48.46	53.39	86.33	29.31 ± 0.23	34.35 ± 0.27	29.72 ± 0.10	4.360 ± 0.20
12	1350	10	3.659	11.91	3.893	1.277	81.41	99.99	88.96	32.60 ± 0.21	38.16 ± 0.24	27.50 ± 0.14	3.508 ± 0.08

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 2.8x10^{-16}; m/e39 = 8.3x10^{-17}; m/e38 = 4.7x10^{-17}; m/e37 = 7.8x10^{-17}; m/e 36 = 8.7x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-18-2001)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)
[5] Assumes trapped argon is atmospheric. J-factor = 0.006559 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR314 Muscovite (5.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] $\pm$ 1σ x10^{-1}	Age[5] $\pm$ 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] $\pm$ 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] $\pm$ 1σ x10^{-5}
1	500	14	96.99	65.80	38.67	270.7	8.079	0.803	17.00	16.81 ± 0.97	19.80 ± 1.13	10.33 ± 0.01	279.6 ± 3.40
2	600	10	37.50	14.02	72.70	45.39	16.12	2.404	62.31	23.93 ± 0.32	28.12 ± 0.37	26.82 ± 0.01	121.2 ± 2.90
3	680	10	31.41	12.50	13.15	15.77	38.68	6.248	83.53	26.54 ± 0.25	31.16 ± 0.29	32.06 ± 0.06	50.43 ± 2.60
4	740	14	32.49	11.98	6.111	8.873	67.12	12.92	90.79	29.65 ± 0.12	34.78 ± 0.14	30.99 ± 0.05	27.44 ± 1.18
5	800	10	34.61	11.94	4.600	7.240	60.77	18.96	92.79	32.25 ± 0.14	37.80 ± 0.16	29.08 ± 0.04	21.01 ± 1.24
6	850	10	38.76	12.16	2.638	10.21	39.60	22.89	91.26	35.52 ± 0.12	41.58 ± 0.14	25.95 ± 0.02	26.48 ± 1.01
7	900	14	40.36	12.06	1.687	7.107	298.2	52.52	94.21	38.04 ± 0.05	44.49 ± 0.06	24.92 ± 0.03	17.69 ± 0.15
8	950	10	39.38	12.00	4.252	7.131	188.4	71.24	94.03	37.05 ± 0.05	43.35 ± 0.06	25.54 ± 0.02	18.18 ± 0.37
9	1000	10	39.61	11.92	3.059	5.598	183.6	89.48	95.20	37.73 ± 0.07	44.14 ± 0.08	25.39 ± 0.04	14.19 ± 0.23
10	1150	15	41.09	12.02	18.17	8.053	95.54	98.98	93.26	38.50 ± 0.03	45.02 ± 0.03	24.47 ± 0.01	19.57 ± 0.10
11	1350	11	57.95	12.94	136.9	62.12	10.30	99.99	66.25	39.50 ± 0.82	46.18 ± 0.95	17.32 ± 0.02	106.9 ± 4.8

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $9.0x10^{-16}$; m/e39 = $9.2x10^{-17}$; m/e38 = $5.0x10^{-17}$; m/e37 = $8.1x10^{-17}$; m/e 36 = $9.4x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-20-2001)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224;$^{36}Ar/^{39}Ar_{Ca}$ = 0.0003;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)
[5] Assumes trapped argon is atmospheric. J-factor = 0 006564 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR337 Muscovite (6.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar*$[3] (%)	$^{40}Ar*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	500	13	267.8	70.88	48.56	838.1	5.513	0.6233	7.395	19.82 ± 4.43	24.32 ± 5.40	3.739 ± 0.021	313.3 ± 5.6
2	600	13	56.65	16.93	24.06	102.2	11.83	1.96	46.07	26.15 ± 1.29	32.02 ± 1.56	17.75 ± 0.04	181.3 ± 7.7
3	700	13	41.21	13.13	9.380	35.6	34.71	5.884	73.67	30.39 ± 0.41	37.15 ± 0.49	24.45 ± 0.04	86.99 ± 3.32
4	770	13	40.13	12.77	6.278	21.93	45.04	10.98	83.04	33.35 ± 0.26	40.74 ± 0.31	25.11 ± 0.04	55.02 ± 2.14
5	840	13	44.75	12.74	3.720	26.25	96.52	21.89	81.96	36.69 ± 0.18	44.76 ± 0.22	22.50 ± 0.04	59.05 ± 1.27
6	880	13	43.65	12.62	2.680	15.25	197.9	44.26	88.96	38.83 ± 0.15	47.34 ± 0.18	23.07 ± 0.06	35.18 ± 0.81
7	920	13	42.59	12.56	6.401	15.57	170.4	63.53	88.47	37.69 ± 0.13	45.97 ± 0.16	23.65 ± 0.05	36.79 ± 0.82
8	960	13	41.74	12.49	10.84	12.63	174.4	83.25	90.33	37.71 ± 0.13	45.99 ± 0.15	24.14 ± 0.05	30.42 ± 0.73
9	1000	13	40.78	12.53	5.944	9.632	99.94	94.54	92.25	37.63 ± 0.13	45.90 ± 0.16	24.71 ± 0.03	23.76 ± 1.02
10	1070	13	42.72	12.64	55.18	15.71	24.51	97.32	88.41	37.82 ± 0.45	46.12 ± 0.54	23.58 ± 0.04	36.69 ± 3.52
11	1150	13	45.63	12.73	254.4	21.05	16.34	99.16	85.99	39.31 ± 0.60	47.92 ± 0.72	22.06 ± 0.06	44.93 ± 4.39
12	500	13	65.65	13.77	170.9	81.73	7.404	99.99	62.78	41.33 ± 1.54	50.35 ± 1.85	15.30 ± 0.04	124.4 ± 7.9

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.8 x10^{-17}; m/e39 = 4.0 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 2.8 x10^{-17}; m/e36 = 2.8 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-18-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006847 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR351 Muscovite (5.9mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	500	13	428.7	115	138.1	136.6	4.072	0.4718	5.78	24.80 ± 6.04	30.52 ± 7.37	2.334 ± 0.007	313.3 ± 5.6
2	600	13	70.9	19.37	540.1	15.07	9.019	1.517	37.3	26.51 ± 1.89	32.61 ± 2.30	14.16 ± 0.04	181.3 ± 7.7
3	700	13	41.75	13.34	142.2	4.141	31.67	5.187	70.17	29.32 ± 0.43	36.04 ± 0.53	24.13 ± 0.04	86.99 ± 3.32
4	770	13	38.67	12.75	7.435	2.427	48.1	10.76	80.63	31.20 ± 0.30	38.33 ± 0.36	26.06 ± 0.05	55.02 ± 2.14
5	840	13	44.78	12.8	2.519	2.651	139.1	26.87	81.81	36.65 ± 0.15	44.93 ± 0.19	22.48 ± 0.04	59.05 ± 1.27
6	880	13	39.18	12.48	1.854	1.28	139	42.99	89.55	35.10 ± 0.13	43.05 ± 0.16	25.72 ± 0.04	35.18 ± 0.81
7	920	13	38.41	12.58	2.586	1.688	99.7	54.54	86.19	33.12 ± 0.17	40.65 ± 0.21	26.24 ± 0.04	36.79 ± 0.82
8	960	13	36.9	12.59	1.566	1.269	156.5	72.68	89	32.85 ± 0.12	40.33 ± 0.15	27.32 ± 0.05	30.42 ± 0.73
9	1000	13	38.82	12.36	1.534	1.075	145.6	89.55	91.01	35.34 ± 0.12	43.35 ± 0.15	25.96 ± 0.04	23.76 ± 1.02
10	1070	13	43.92	12.39	5.78	1.3	72	97.9	90.53	39.78 ± 0.18	48.72 ± 0.22	22.93 ± 0.03	36.69 ± 3.52
11	1150	13	49.11	13.01	51.73	3.4	14.97	99.63	78.88	38.80 ± 0.93	47.53 ± 1.13	20.49 ± 0.05	44.93 ± 4.39
12	500	13	133.3	20.24	237.6	32.28	3.19	99.99	28.3	37.85 ± 4.46	46.38 ± 5.40	7.516 ± 0.029	124.4 ± 7.9

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.0 x10^{-17}; m/e39 = 4.2 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 2.5 x10^{-17}; m/e36 = 2.6 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-17-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006881 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR358 Muscovite (3.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	13	40.98	99.02	47.20	131.3	3.667	0.647	5.262	21.58 ± 5.46	26.45 ± 6.65	2.442 ± 0.01	320.6 ± 4.49
2	600	13	5.019	17.67	116.2	8.844	8.311	2.112	47.40	23.85 ± 1.39	29.21 ± 1.68	20.04 ± 0.05	176.7 ± 9.37
3	700	13	3.781	13.15	80.81	3.042	26.82	6.841	75.52	28.58 ± 0.40	34.95 ± 0.48	26.66 ± 0.06	80.51 ± 3.54
4	770	13	3.764	12.81	3.999	2.045	38.13	13.57	83.09	31.30 ± 0.27	38.24 ± 0.33	26.78 ± 0.04	54.73 ± 2.42
5	840	13	4.382	12.60	1.905	2.381	84.00	28.38	83.23	36.48 ± 0.16	44.49 ± 0.19	22.98 ± 0.03	54.70 ± 1.12
6	880	13	4.039	12.56	1.479	1.326	94.17	44.98	89.52	36.16 ± 0.14	44.11 ± 0.16	24.95 ± 0.04	33.08 ± 1.00
7	920	13	3.868	12.59	1.399	1.456	88.86	60.65	88.07	34.07 ± 0.15	41.58 ± 0.19	26.06 ± 0.04	37.92 ± 1.27
8	960	13	3.943	12.47	0.383	1.172	112.9	80.56	90.42	35.66 ± 0.13	43.50 ± 0.15	25.56 ± 0.04	29.96 ± 0.95
9	1000	13	4.249	12.56	2.026	1.063	78.12	94.34	91.87	39.05 ± 0.14	47.58 ± 0.16	23.70 ± 0.03	25.18 ± 0.98
10	1070	13	4.657	12.76	9.183	1.746	22.39	98.29	88.20	41.11 ± 0.42	50.05 ± 0.51	21.62 ± 0.04	37.70 ± 3.03
11	1150	13	5.457	14.84	44.96	4.690	6.439	99.42	73.91	40.44 ± 1.46	49.25 ± 1.75	18.43 ± 0.07	86.20 ± 8.99
12	1350	13	9.113	19.48	53.47	17.44	3.277	99.99	43.03	39.34 ± 3.16	47.93 ± 3.80	11.01 ± 0.06	191.8 ± 11.7

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 8.0x10^{-17}; m/e39 = 6.2x10^{-17}; m/e38 = 1.5x10^{-17}; m/e37 = 2.7x10^{-17}; m/e 36 = 2.5x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 05-03-2002; Analyzed: 09-19-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000271; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000772)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006844 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR359 Muscovite (4.6mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-4}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	15	10.82	54.69	92.84	304.6	3.406	0.617	16.57	17.99 ± 2.64	22.04 ± 3.21	9.265 ± 0.04	282.0 ± 8.24
2	600	19	5.221	17.53	420.8	86.37	11.12	2.632	51.07	26.72 ± 0.92	32.63 ± 1.11	19.26 ± 0.04	164.2 ± 5.95
3	700	15	3.850	13.05	159.4	28.95	31.19	8.283	77.25	29.78 ± 0.36	36.32 ± 0.44	26.18 ± 0.04	74.65 ± 3.17
4	770	19	3.833	12.66	6.662	20.60	47.63	16.91	83.28	31.94 ± 0.21	38.93 ± 0.25	26.30 ± 0.04	54.13 ± 1.77
5	840	16	4.399	12.69	3.134	24.88	68.49	29.32	82.56	36.34 ± 0.20	44.23 ± 0.24	22.89 ± 0.03	56.94 ± 1.50
6	880	15	4.193	12.65	2.012	17.55	70.31	42.06	86.87	36.44 ± 0.17	44.36 ± 0.20	24.02 ± 0.05	42.15 ± 1.18
7	920	22	3.817	12.63	1.445	14.97	86.31	57.70	87.58	33.44 ± 0.15	40.74 ± 0.18	26.41 ± 0.05	39.52 ± 1.19
8	960	15	3.743	12.49	0.831	11.80	70.00	70.38	89.83	33.64 ± 0.13	40.98 ± 0.16	26.94 ± 0.04	31.78 ± 1.15
9	1000	15	4.264	12.58	1.584	12.94	60.66	81.37	90.28	38.51 ± 0.18	46.84 ± 0.22	23.62 ± 0.04	30.56 ± 1.38
10	1070	19	4.673	12.42	2.616	11.11	87.00	97.13	92.30	43.14 ± 0.14	52.39 ± 0.16	21.54 ± 0.03	23.92 ± 0.88
11	1150	15	4.977	12.89	23.56	18.14	15.82	99.99	88.52	44.13 ± 0.54	53.57 ± 0.65	20.21 ± 0.04	36.54 ± 3.66

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 7.5x10^{-17}; m/e39 = 4.3x10^{-17}; m/e38 = 1.7x10^{-17}; m/e37 = 2.8x10^{-17}; m/e 36 = 2.6x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 05-03-2002; Analyzed: 08-09-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000271; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000772)
[5] Assumes trapped argon is atmospheric. J-factor = 0.00683 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR371 Muscovite (4.6mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-1}	$^{36}Ar/^{39}Ar$ [1] x10^{-2}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	13	677.2	699.5	3.701	223.3	0.4584	0.1285	2.567	17.39 ± 17.50	108.8 ± 106.3	1.476 ± 0.025	329.7 ± 8.7
2	600	13	34.19	40.40	7.558	8.781	0.5957	0.2954	23.99	8.261 ± 2.445	52.50 ± 15.31	29.26 ± 0.48	256.6 ± 23.9
3	700	13	29.72	25.01	73.32	6.115	2.259	0.9286	40.67	12.18 ± 0.90	76.88 ± 5.57	33.50 ± 0.32	200.3 ± 9.9
4	770	13	68.93	46.76	90.00	18.89	4.817	2.278	19.85	13.79 ± 1.08	86.79 ± 6.62	14.41 ± 0.11	271.2 ± 5.0
5	840	13	19.32	14.98	1.682	1.315	14.30	6.287	79.74	15.42 ± 0.17	96.78 ± 1.04	51.84 ± 0.31	67.95 ± 2.22
6	880	13	17.50	12.52	0.02028	0.1902	60.25	23.17	96.58	16.90 ± 0.09	105.8 ± 0.5	57.27 ± 0.27	10.89 ± 0.45
7	920	13	15.95	12.31	0.01137	0.07303	87.49	47.69	98.42	15.70 ± 0.08	98.49 ± 0.48	62.84 ± 0.30	4.587 ± 0.349
8	960	13	15.66	12.39	0.01329	0.08206	46.41	60.70	98.21	15.39 ± 0.07	96.58 ± 0.44	63.99 ± 0.26	5.249 ± 0.705
9	1000	13	15.70	12.78	0.02158	0.1725	21.04	66.59	96.50	15.16 ± 0.11	95.19 ± 0.67	63.82 ± 0.36	11.00 ± 1.44
10	1070	13	15.69	12.78	0.02795	0.2076	18.95	71.90	95.83	15.04 ± 0.09	94.48 ± 0.58	63.88 ± 0.25	13.26 ± 1.55
11	1150	13	15.21	12.43	0.01589	0.1168	42.51	83.82	97.48	14.83 ± 0.06	93.16 ± 0.35	65.92 ± 0.19	7.694 ± 0.835
12	1350	13	15.19	12.48	0.03298	0.07251	57.74	99.99	98.35	14.94 ± 0.06	93.87 ± 0.37	65.98 ± 0.24	4.779 ± 0.526

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.8 x10^{-17}; m/e39 = 2.9 x10^{-17}; m/e38 = 1.3 x10^{-17}; m/e37 = 2.6 x10^{-17}; m/e36 = 1.7 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-01-2003)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)

[5] J-factor = 0.003574 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR372 Muscovite (5.4mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-2}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	13	138.3	152.4	4.765	447.3	1.540	0.3926	4.390	60.75 ± 53.21	38.81 ± 33.63	0.723 ± 0.019	323.5 ± 12.8
2	600	13	13.34	28.77	8.846	35.56	2.284	0.9747	20.92	28.05 ± 7.56	18.02 ± 4.83	7.515 ± 0.160	267.1 ± 18.7
3	700	13	7.886	16.92	12.08	11.26	8.236	3.074	57.32	45.33 ± 2.10	29.03 ± 1.33	12.73 ± 0.20	143.1 ± 7.7
4	770	13	6.984	14.02	1.862	6.158	14.21	6.697	73.35	51.32 ± 1.11	32.84 ± 0.70	14.39 ± 0.12	88.54 ± 4.63
5	840	13	7.118	13.21	0.5932	4.828	20.67	11.97	79.39	56.57 ± 0.92	36.16 ± 0.58	14.12 ± 0.12	68.14 ± 3.32
6	880	13	7.619	13.50	0.4699	5.074	22.87	17.80	79.80	60.86 ± 1.17	38.88 ± 0.74	13.18 ± 0.16	66.88 ± 3.29
7	920	13	8.187	12.96	0.2654	3.976	49.21	30.34	85.20	69.78 ± 0.75	44.51 ± 0.47	12.27 ± 0.10	48.76 ± 1.55
8	960	13	7.683	12.80	0.3315	2.969	49.66	42.99	88.10	67.71 ± 0.81	43.20 ± 0.51	13.07 ± 0.13	38.81 ± 1.58
9	1000	13	7.392	12.95	0.3351	2.958	50.76	55.93	87.67	64.83 ± 0.60	41.39 ± 0.38	13.59 ± 0.09	40.20 ± 1.66
10	1070	13	7.510	12.73	0.2249	2.149	101.9	81.89	91.07	68.41 ± 0.43	43.64 ± 0.27	13.38 ± 0.07	28.74 ± 0.69
11	1150	13	7.862	12.53	0.5187	1.965	61.64	97.60	92.15	72.47 ± 0.49	46.20 ± 0.31	12.78 ± 0.07	25.09 ± 1.07
12	1350	13	12.01	62.04	112.1	7.154	9.417	99.99	82.63	99.49 ± 2.04	63.13 ± 1.27	8.341 ± 0.095	57.58 ± 4.31

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.1 x10^{-16}; m/e39 = 2.4 x10^{-17}; m/e38 = 5.4 x10^{-18}; m/e37 = 2.5 x10^{-17}; m/e36 = 1.2 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-03-2003)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)

[5] J-factor = 0.003579 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

MRD35 Muscovite (5.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-2}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	13	82.29	173.6	94.33	265.9	4.944	0.7068	4.505	37.09 ± 12.87	23.43 ± 8.08	1.216 ± 0.008	323.2 ± 5.3
2	600	13	9.005	16.34	150.8	13.16	11.48	2.348	56.51	50.99 ± 2.28	32.13 ± 1.42	11.14 ± 0.05	146.2 ± 8.5
3	700	13	7.309	13.68	53.44	4.237	32.03	6.927	82.44	60.31 ± 0.64	37.94 ± 0.40	13.74 ± 0.04	58.01 ± 2.83
4	770	13	7.389	12.86	13.76	3.072	40.60	12.73	87.26	64.51 ± 0.61	40.56 ± 0.38	13.59 ± 0.03	41.70 ± 2.71
5	840	13	7.771	12.77	7.401	2.603	87.45	25.23	89.69	69.72 ± 0.35	43.79 ± 0.22	12.92 ± 0.03	33.60 ± 1.27
6	880	13	7.735	12.49	3.976	1.807	143.9	45.80	92.69	71.71 ± 0.29	45.02 ± 0.18	12.98 ± 0.04	23.43 ± 0.78
7	920	13	7.659	12.69	3.246	1.736	170.4	70.16	92.89	71.15 ± 0.28	44.68 ± 0.17	13.11 ± 0.04	22.75 ± 0.81
8	960	13	7.802	12.61	5.905	1.836	111.8	86.13	92.64	72.29 ± 0.29	45.38 ± 0.18	12.87 ± 0.03	23.61 ± 0.90
9	1000	13	7.873	12.62	9.770	1.830	56.21	94.17	92.71	73.02 ± 0.47	45.84 ± 0.29	12.75 ± 0.03	23.30 ± 1.84
10	1070	13	8.165	14.22	64.65	3.148	19.49	96.95	88.19	72.09 ± 1.01	45.26 ± 0.63	12.29 ± 0.05	38.49 ± 3.97
11	1150	13	8.656	13.92	137.0	4.092	13.85	98.93	85.67	74.28 ± 1.40	46.62 ± 0.87	11.59 ± 0.05	47.01 ± 5.27
12	500	13	12.03	18.03	259.9	16.04	7.459	99.99	60.40	72.83 ± 2.91	45.72 ± 1.80	8.332 ± 0.042	133.1 ± 8.0

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.3 x10^{-16}; m/e39 = 6.1 x10^{-17}; m/e38 = 2.1 x10^{-17}; m/e37 = 4.8 x10^{-17}; m/e36 = 3.4 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 10-18-2002; analyzed: 01-03-2003)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ a = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00079)

[5] J-factor = 0.003524 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

MRD132 Muscovite (5.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-2}	$^{36}Ar/^{39}Ar$ [1] x10^{-4}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	13	231.5	85.13	12.56	727.5	6.812	0.9720	7.046	16.32 ± 2.83	20.03 ± 3.45	4.325 ± 0.016	314.5 ± 4.1
2	600	13	43.57	16.86	18.62	78.86	16.95	3.390	46.07	20.11 ± 0.87	24.64 ± 1.06	23.11 ± 0.05	181.1 ± 6.8
3	700	13	35.40	13.25	5.745	31.69	43.96	9.663	72.75	25.77 ± 0.30	31.53 ± 0.37	28.50 ± 0.05	89.87 ± 2.87
4	770	13	33.75	12.43	2.388	14.98	52.93	17.22	85.97	29.04 ± 0.24	35.48 ± 0.29	29.90 ± 0.04	44.60 ± 2.37
5	840	13	35.18	12.55	1.121	11.28	103.1	31.93	89.65	31.55 ± 0.15	38.51 ± 0.19	28.68 ± 0.04	32.26 ± 1.41
6	880	13	35.31	12.54	0.7743	7.872	138.8	51.73	92.54	32.69 ± 0.11	39.89 ± 0.13	28.57 ± 0.05	22.43 ± 0.87
7	920	13	35.69	12.38	1.118	7.152	162.7	74.95	93.23	33.28 ± 0.10	40.61 ± 0.12	28.26 ± 0.05	20.13 ± 0.69
8	960	13	36.60	12.39	2.073	7.778	101.3	89.41	92.90	34.02 ± 0.12	41.50 ± 0.15	27.55 ± 0.04	21.27 ± 1.00
9	1000	13	35.99	12.47	1.830	10.53	43.09	95.55	90.47	32.59 ± 0.22	39.77 ± 0.26	28.02 ± 0.03	29.36 ± 2.00
10	1070	13	36.34	13.34	14.85	25.71	17.78	98.09	78.43	28.56 ± 0.58	34.90 ± 0.71	27.75 ± 0.06	70.23 ± 5.42
11	1150	13	42.39	12.99	52.28	29.10	9.629	99.47	79.74	33.92 ± 0.90	41.38 ± 1.08	23.75 ± 0.07	65.78 ± 7.15
12	1350	13	80.10	16.29	35.95	171.1	3.748	99.99	36.72	29.54 ± 3.01	36.10 ± 3.64	12.53 ± 0.06	213.1 ± 12.7

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.3 x10^{-17}; m/e39 = 4.2 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 2.7 x10^{-17}; m/e36 = 2.7 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-19-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006840 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR18 Biotite (5.4mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-2}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	500	13	7.578	34.43	4.848	23.42	27.31	4.568	8.308	6.300 ± 0.822	7.825 ± 1.019	13.25 ± 0.03	31.02 ± 0.37
2	700	13	3.750	14.60	2.340	7.961	291.5	53.34	36.49	13.69 ± 0.21	16.96 ± 0.26	26.89 ± 0.07	21.39 ± 0.18
3	770	13	4.764	14.58	1.764	9.878	66.13	64.40	38.11	18.16 ± 0.35	22.47 ± 0.44	21.13 ± 0.03	20.86 ± 0.25
4	840	13	3.960	13.86	1.916	6.013	44.36	71.83	54.36	21.54 ± 0.33	26.62 ± 0.41	25.45 ± 0.03	15.29 ± 0.29
5	900	13	4.075	13.83	3.094	6.170	57.84	81.50	54.54	22.24 ± 0.37	27.47 ± 0.45	24.72 ± 0.04	15.24 ± 0.30
6	960	13	4.173	14.12	5.392	7.094	63.65	92.15	49.11	20.50 ± 0.29	25.34 ± 0.35	24.14 ± 0.03	17.09 ± 0.23
7	1020	13	4.791	14.76	5.040	10.01	39.56	98.77	37.68	18.06 ± 0.43	22.35 ± 0.53	21.01 ± 0.04	21.00 ± 0.30
8	1080	13	7.918	17.62	22.73	20.29	6.029	99.78	24.04	19.09 ± 2.02	23.61 ± 2.48	12.68 ± 0.05	25.65 ± 0.86
9	1150	13	42.92	40.09	335.7	129.6	0.7298	99.90	11.30	48.81 ± 20.66	59.76 ± 24.87	2.326 ± 0.026	30.00 ± 1.62
10	500	13	165.8	121.4	63.23	544.8	0.5885	99.99	2.928	48.64 ± 45.54	59.55 ± 54.84	0.603 ± 0.009	32.85 ± 0.92

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.4 x10^{-17}; m/e39 = 4.2 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 2.6 x10^{-17}; m/e36 = 2.8 x10^{-17}), mass discrimination (measured $^{0}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-14-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006900 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR49 Biotite (5.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	500	12	93.90	54.89	6.624	29.80	22.17	4.230	6.041	5.680 ± 0.26	6.673 ± 0.30	10.67 ± 0.01	31.79 ± 0.09
2	600	10	42.37	15.17	10.56	10.62	78.21	19.15	25.60	10.86 ± 0.08	12.74 ± 0.10	23.72 ± 0.01	25.12 ± 0.07
3	680	10	50.11	14.38	8.131	10.07	91.92	36.68	40.29	20.20 ± 0.08	23.62 ± 0.09	20.05 ± 0.02	20.14 ± 0.05
4	740	16	55.95	14.37	2.727	10.18	53.92	46.97	45.83	25.67 ± 0.27	29.96 ± 0.31	17.94 ± 0.06	18.25 ± 0.14
5	780	10	61.26	14.67	2.851	11.25	13.51	49.55	45.26	27.82 ± 0.44	32.45 ± 0.50	16.38 ± 0.02	18.42 ± 0.24
6	840	10	63.01	14.84	2.549	12.51	67.85	62.49	40.98	25.84 ± 0.25	30.15 ± 0.29	15.93 ± 0.05	19.92 ± 0.11
7	900	15	61.32	14.66	2.595	11.52	78.29	77.42	44.13	27.07 ± 0.14	31.59 ± 0.16	16.37 ± 0.03	18.84 ± 0.06
8	1000	10	61.22	14.35	2.672	11.59	78.60	92.42	43.69	26.76 ± 0.15	31.23 ± 0.17	16.39 ± 0.02	18.99 ± 0.07
9	1100	10	56.41	14.07	9.224	10.23	35.24	99.14	46.11	26.05 ± 0.45	30.41 ± 0.52	17.80 ± 0.11	18.15 ± 0.20
10	1350	14	82.37	16.60	54.93	16.93	4.508	99.99	39.23	32.63 ± 2.06	38.00 ± 2.37	12.17 ± 0.14	20.41 ± 0.79

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 1.8×10^{-16}; m/e39 = 8.6×10^{-17}; m/e38 = 4.7×10^{-17}; m/e37 = 7.4×10^{-17}; m/e 36 = 8.8×10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-10-2001)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)
[5] Assumes trapped argon is atmospheric. J-factor = 0.006524 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR68B Biotite (5.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-2}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	500	13	110.1	31.07	5.43	34.34	24.49	3.997	7.615	8.391 ± 0.978	10.40 ± 1.21	9.106 ± 0.019	31.26 ± 0.30
2	700	13	52.42	16.82	4.556	12.06	286.4	50.73	31.49	16.51 ± 0.29	20.41 ± 0.36	19.19 ± 0.05	23.12 ± 0.17
3	770	13	51.44	16.05	2.178	9.689	57.71	60.15	43.76	22.52 ± 0.36	27.79 ± 0.44	19.56 ± 0.03	18.94 ± 0.24
4	840	13	50.45	15.71	2.213	9.009	47.65	67.92	46.63	23.54 ± 0.37	29.04 ± 0.46	19.94 ± 0.03	17.95 ± 0.25
5	900	13	51.11	16.07	3.318	9.659	51.28	76.29	43.59	22.29 ± 0.37	27.51 ± 0.46	19.68 ± 0.03	18.99 ± 0.25
6	960	13	49.57	15.92	3.356	9.551	71.8	88.01	42.48	21.07 ± 0.32	26.01 ± 0.39	20.30 ± 0.03	19.37 ± 0.22
7	1020	13	50.32	16.51	3.81	9.985	52.52	96.58	40.79	20.54 ± 0.33	25.36 ± 0.40	20.00 ± 0.02	19.95 ± 0.22
8	1080	13	55.79	16.33	7.579	10.91	15.27	99.07	41.7	23.30 ± 0.90	28.75 ± 1.10	18.02 ± 0.05	19.63 ± 0.55
9	1150	13	70.23	18.17	71.86	15.35	3.924	99.71	35.6	25.14 ± 2.47	30.99 ± 3.02	14.29 ± 0.06	21.68 ± 1.19
10	500	13	277.5	27.48	12.83	81.82	1.766	99.99	12.75	35.48 ± 8.25	43.58 ± 10.01	3.608 ± 0.019	29.51 ± 1.00

[1] Corrected for backgrounds (mean values in mol: m/e40 = 9.2 x10^{-17}; m/e39 = 4.0 x10^{-17}; m/e38 = 1.8 x10^{-17}; m/e37 = 2.9 x10^{-17}; m/e36 = 2.8 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-13-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{39}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006892 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR83 Biotite (5.2mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	500	10	116.0	49.27	51.96	36.35	31.77	4.755	7.239	8.406 ± 0.51	9.874 ± 0.60	8.637 ± 0.01	31.38 ± 0.15
2	600	10	52.60	16.09	43.45	13.60	156.7	28.20	23.24	12.23 ± 0.17	14.35 ± 0.20	19.09 ± 0.02	25.94 ± 0.11
3	680	10	60.29	15.90	25.44	14.53	179.6	55.09	28.45	17.16 ± 0.82	20.10 ± 0.95	16.65 ± 0.20	24.17 ± 0.37
4	740	10	65.18	16.33	16.64	16.30	113.1	72.01	25.77	16.80 ± 0.15	19.68 ± 0.17	15.40 ± 0.00	25.09 ± 0.08
5	780	10	64.78	16.11	16.81	16.41	19.05	74.86	24.74	16.07 ± 0.38	18.83 ± 0.44	15.49 ± 0.02	25.42 ± 0.20
6	840	10	58.53	15.67	21.34	12.94	18.72	77.67	34.25	20.10 ± 0.66	23.52 ± 0.77	17.15 ± 0.13	22.18 ± 0.34
7	900	14	58.11	15.30	21.66	12.36	31.81	82.42	36.74	21.38 ± 0.23	25.01 ± 0.27	17.28 ± 0.02	21.34 ± 0.13
8	1000	10	59.55	15.78	19.73	13.80	73.27	93.39	31.13	18.55 ± 0.14	21.72 ± 0.16	16.86 ± 0.00	23.26 ± 0.08
9	1100	10	65.64	16.18	21.96	15.97	42.10	99.69	27.78	18.25 ± 0.27	21.37 ± 0.32	15.29 ± 0.01	24.40 ± 0.14
10	1350	14	113.6	22.38	274.3	26.19	2.067	99.99	31.45	36.21 ± 2.88	42.15 ± 3.31	8.821 ± 0.01	23.03 ± 0.86

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 2.1x10^{-16}; m/e39 = 9.3x10^{-17}; m/e38 = 5.0 x10^{-17}; m/e37 = 7.8x10^{-17}; m/e 36 = 9.4x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-10-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224;$^{36}Ar/^{39}Ar_{Ca}$ = 0.0003;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0 006529 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR113 Biotite (5.2mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	500	10	170.0	106.6	121.3	689.2	9.654	1.175	-	-	0 ± 0	5.888 ± 0.01	40.56 ± 0.19
2	600	10	38.29	16.30	42.04	104.4	41.06	6.175	18.95	7.254 ± 0.15	8.531 ± 0.17	26.27 ± 0.03	27.39 ± 0.13
3	680	10	26.19	13.57	13.81	32.74	131.0	22.13	62.24	16.30 ± 0.30	19.11 ± 0.35	38.51 ± 0.43	12.60 ± 0.18
4	740	14	22.92	12.70	7.298	8.844	139.9	39.16	87.56	20.09 ± 0.10	23.53 ± 0.11	44.06 ± 0.14	3.887 ± 0.09
5	800	10	23.74	12.81	12.35	12.20	39.22	43.93	83.61	19.92 ± 0.24	23.33 ± 0.28	42.52 ± 0.05	5.173 ± 0.34
6	840	10	25.32	12.90	14.45	16.61	46.22	49.56	79.55	20.20 ± 0.17	23.66 ± 0.20	39.84 ± 0.04	6.602 ± 0.23
7	900	14	25.31	12.71	10.95	15.33	60.64	56.94	81.08	20.56 ± 0.17	24.08 ± 0.19	39.87 ± 0.03	6.099 ± 0.22
8	1000	10	23.55	12.82	6.795	11.49	183.8	79.32	84.59	19.94 ± 0.07	23.35 ± 0.08	42.87 ± 0.02	4.919 ± 0.10
9	1100	15	22.33	12.66	8.265	7.052	163.8	99.26	89.61	20.03 ± 0.04	23.46 ± 0.04	45.24 ± 0.06	3.179 ± 0.03
10	1350	13	37.45	13.44	102.9	51.41	6.106	99.99	58.16	22.13 ± 0.54	25.90 ± 0.63	26.86 ± 0.05	13.73 ± 0.49

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 2.2×10^{-16}; m/e39 = 8.9×10^{-17}; m/e38 = 4.9×10^{-17}; m/e37 = 7.4×10^{-17}; m/e 36 = 9.0×10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-11-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006534 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR130 Biotite (5.5mg)

	T	Time	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1]	$^{37}Ar/^{39}Ar$[1]	$^{36}Ar/^{39}Ar$[1]	$^{39}Ar_K$[2]	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$[3]	$^{40}Ar^*/^{39}Ar_K$[4]	Age[5]	$^{39}Ar_K/^{40}Ar$[6]	$^{36}Ar/^{40}Ar$[6]
	(°C)	(min.)					(mol)	(%)	(%)	± 1σ	± 1σ (Ma)	± 1σ	± 1σ
				$x10^{-3}$	$x10^{-3}$	$x10^{-3}$	$x10^{-15}$			$x10^{-1}$		$x10^{-2}$	$x10^{-4}$
1	500	13	159.8	171.4	54.57	528.7	7.403	1.031	2.246	35.91 ± 13.85	43.70 ± 16.65	0.626 ± 0.003	33.08 ± 0.29
2	700	13	11.41	19.16	13.11	31.01	203.1	29.34	19.47	22.23 ± 0.71	27.17 ± 0.86	8.784 ± 0.018	27.23 ± 0.21
3	770	13	4.144	13.99	8.629	5.989	100.4	43.32	56.55	23.44 ± 0.21	28.65 ± 0.26	24.31 ± 0.04	14.55 ± 0.16
4	840	13	4.184	13.84	9.158	5.799	87.41	55.5	58.31	24.40 ± 0.27	29.82 ± 0.33	24.08 ± 0.03	13.96 ± 0.22
5	900	13	4.003	13.61	14.05	4.822	72.96	65.67	63.64	25.49 ± 0.30	31.13 ± 0.37	25.17 ± 0.04	12.13 ± 0.25
6	960	13	3.752	13.58	11.44	4.581	120.6	82.47	63.11	23.69 ± 0.22	28.95 ± 0.27	26.87 ± 0.05	12.30 ± 0.19
7	1020	13	3.958	13.85	8.281	5.314	90.18	95.04	59.54	23.58 ± 0.23	28.81 ± 0.27	25.46 ± 0.04	13.53 ± 0.19
8	1080	13	4.213	13.92	18.97	5.772	30	99.22	58.76	24.78 ± 0.53	30.28 ± 0.64	23.91 ± 0.05	13.79 ± 0.42
9	1150	13	4.722	15.94	400.6	7.239	4.619	99.86	54.35	25.85 ± 2.67	31.56 ± 3.24	21.31 ± 0.07	15.20 ± 1.93
10	500	13	18.8	29.93	267.2	51.25	0.9999	99.99	19.23	36.44 ± 13.53	44.34 ± 16.26	5.328 ± 0.044	27.27 ± 2.43

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.0E-16; m/e39 = 4.2E-17; m/e38 = 1.7E-17; m/e37 = 2.6E-17; m/e36 = 2.7E-17), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-20-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{39}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006829 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR148 Biotite (5.5mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	500	13	352.6	69.75	74.94	114.5	6.402	0.906	3.952	13.94 ± 4.03	17.25 ± 4.96	2.839 ± 0.010	32.50 ± 0.39
2	700	13	50.58	14.88	19.41	10.48	150.8	22.24	38.18	19.32 ± 0.21	23.86 ± 0.26	19.89 ± 0.05	20.84 ± 0.12
3	770	13	29.2	13.13	7.956	2.952	114.5	38.45	69.07	20.18 ± 0.15	24.92 ± 0.18	34.61 ± 0.05	10.21 ± 0.17
4	840	13	28.13	12.94	8.226	2.435	69.22	48.25	73.29	20.63 ± 0.20	25.47 ± 0.25	35.94 ± 0.04	8.745 ± 0.241
5	900	13	29.41	12.94	12.64	2.602	63.04	57.17	72.79	21.42 ± 0.27	26.44 ± 0.33	34.36 ± 0.05	8.928 ± 0.306
6	960	13	28.07	12.92	13.02	2.457	109.9	72.73	73.04	20.51 ± 0.14	25.33 ± 0.18	36.02 ± 0.05	8.837 ± 0.170
7	1020	13	28.95	13.08	10.47	2.857	99.48	86.81	69.77	20.21 ± 0.17	24.95 ± 0.21	34.91 ± 0.05	9.964 ± 0.197
8	1080	13	32.06	13.24	13.6	3.895	68.33	96.48	63.13	20.26 ± 0.23	25.01 ± 0.28	31.49 ± 0.04	12.25 ± 0.24
9	1150	13	38.51	13.63	129.1	5.897	21.14	99.47	54.12	20.89 ± 0.55	25.78 ± 0.67	26.17 ± 0.06	15.34 ± 0.48
10	500	13	18.8	29.93	267.2	51.25	0.9999	99.99	19.23	36.44 ± 13.53	44.34 ± 16.26	5.328 ± 0.044	27.27 ± 2.43

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.0E-16; m/e39 = 4.2E-17; m/e38 = 1.7E-17; m/e37 = 2.6E-17; m/e36 = 2.7E-17), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-20-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006829 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR164 Biotite (5.9mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-4}	$^{39}Ar_K$ [2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	500	10	148.8	64.52	58.49	467.8	12.18	1.278	6.998	10.43 ± 0.70	12.27 ± 0.82	6.728 ± 0.01	31.47 ± 0.16
2	600	10	51.71	15.00	39.87	117.5	55.00	7.050	32.46	16.81 ± 0.17	19.72 ± 0.20	19.42 ± 0.01	22.79 ± 0.11
3	680	10	31.07	12.69	11.05	36.79	133.7	21.08	64.27	19.98 ± 0.07	23.42 ± 0.08	32.42 ± 0.02	11.92 ± 0.08
4	740	14	25.41	12.29	5.460	14.85	166.7	38.57	81.81	20.80 ± 0.14	24.38 ± 0.17	39.70 ± 0.20	5.889 ± 0.09
5	780	10	25.23	12.30	4.576	13.55	59.71	44.83	83.10	21.01 ± 0.12	24.62 ± 0.14	39.98 ± 0.03	5.413 ± 0.16
6	840	10	27.75	12.56	7.253	22.37	61.21	51.26	75.26	20.92 ± 0.10	24.52 ± 0.12	36.33 ± 0.05	8.120 ± 0.12
7	900	14	28.36	12.34	10.47	22.38	83.45	60.01	75.84	21.54 ± 0.06	25.23 ± 0.07	35.54 ± 0.03	7.942 ± 0.07
8	1000	10	26.39	12.33	7.639	19.26	205.9	81.61	77.57	20.48 ± 0.04	24.01 ± 0.04	38.21 ± 0.04	7.353 ± 0.04
9	1100	10	25.52	12.45	8.086	16.51	146.5	96.98	79.97	20.42 ± 0.03	23.94 ± 0.04	39.53 ± 0.02	6.518 ± 0.04
10	1350	14	28.26	12.32	143.7	23.80	28.74	99.99	74.52	21.14 ± 0.31	24.77 ± 0.36	35.66 ± 0.36	8.334 ± 0.18

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $1.9x10^{-16}$; m/e39 = $9.4x10^{-17}$; m/e38 = $5.1x10^{-17}$; m/e37 = $7.8x10^{-17}$; m/e 36 = $9.5x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-10-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224;$^{36}Ar/^{39}Ar_{Ca}$ = 0.0003;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0 00654 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR251G Biotite (5.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	500	10	125.5	130.5	80.55	40.28	5.493	1.864	4.972	6.293 ± 0.81	7.412 ± 0.957	7.983 ± 0.01	32.14 ± 0.22
2	600	10	58.69	43.34	70.51	17.87	5.816	3.837	9.566	5.731 ± 1.38	6.751 ± 1.622	17.10 ± 0.04	30.52 ± 0.80
3	680	10	46.22	35.32	41.91	11.08	9.259	6.979	28.21	13.29 ± 0.55	15.61 ± 0.64	21.74 ± 0.17	24.07 ± 0.36
4	740	14	43.90	32.38	19.68	8.804	17.75	13.00	39.88	17.68 ± 0.25	20.74 ± 0.30	22.90 ± 0.04	20.14 ± 0.19
5	780	10	80.78	33.68	64.24	12.42	7.642	15.60	53.81	43.91 ± 0.55	51.10 ± 0.63	12.41 ± 0.01	15.39 ± 0.23
6	840	10	75.55	33.27	86.82	7.344	11.78	19.59	70.72	53.71 ± 0.41	62.30 ± 0.47	13.27 ± 0.02	9.715 ± 0.180
7	900	13	67.77	32.41	18.33	3.669	18.96	26.02	83.42	56.72 ± 0.21	65.73 ± 0.24	14.80 ± 0.03	5.424 ± 0.074
8	1000	10	67.54	31.77	10.28	2.395	24.19	34.23	88.94	60.25 ± 0.29	69.74 ± 0.32	14.86 ± 0.02	3.553 ± 0.138
9	1100	10	65.93	32.00	7.413	1.464	37.51	46.96	92.89	61.39 ± 0.12	71.03 ± 0.14	15.22 ± 0.01	2.225 ± 0.055
10	1350	14	66.33	32.64	8.321	1.346	156.3	99.99	93.63	62.14 ± 0.15	71.88 ± 0.17	15.13 ± 0.03	2.032 ± 0.023

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 3.4x10^{-16}; m/e39 = 8.9x10^{-17}; m/e38 = 4.9x10^{-17}; m/e37 = 7.5x10^{-17}; m/e 36 = 9.0x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-11-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006542 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR292 Biotite (4.9mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	500	10	51.97	24.28	69.60	19.71	36.42	6.043	-	-	0 ± 0	19.32 ± 0.06	38.04 ± 0.19
2	600	10	45.91	15.77	66.30	12.98	87.02	20.48	16.11	7.399 ± 0.16	8.719 ± 0.19	21.89 ± 0.04	28.36 ± 0.11
3	680	10	55.91	15.48	68.84	13.07	91.30	35.63	30.63	17.13 ± 0.14	20.12 ± 0.17	17.96 ± 0.02	23.43 ± 0.08
4	740	14	59.48	14.36	16.26	10.21	58.72	45.38	48.81	29.09 ± 0.43	34.04 ± 0.50	16.88 ± 0.12	17.23 ± 0.13
5	780	10	62.12	14.29	16.94	10.16	20.98	48.86	50.91	31.90 ± 0.97	37.30 ± 1.12	16.16 ± 0.24	16.40 ± 0.30
6	840	10	63.92	14.49	17.38	9.941	25.89	53.15	53.24	34.34 ± 0.28	40.11 ± 0.32	15.70 ± 0.02	15.60 ± 0.14
7	900	14	70.12	14.77	17.48	12.54	35.92	59.11	46.57	32.85 ± 0.35	38.40 ± 0.41	14.31 ± 0.01	17.94 ± 0.17
8	1000	10	75.75	15.50	19.20	16.16	75.18	71.59	36.62	27.80 ± 0.23	32.55 ± 0.26	13.24 ± 0.03	21.38 ± 0.08
9	1100	10	58.08	13.97	11.44	8.962	121.0	91.67	53.97	31.38 ± 0.22	36.70 ± 0.25	17.28 ± 0.05	15.48 ± 0.10
10	1350	13	56.50	13.54	10.02	5.793	50.23	99.99	69.18	39.17 ± 0.38	45.69 ± 0.44	17.77 ± 0.02	10.29 ± 0.23

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 6.4×10^{-16}; m/e39 = 9.8×10^{-17}; m/e38 = 5.2×10^{-17}; m/e37 = 8.5×10^{-17}; m/e 36 = 9.8×10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-20-2001)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.076986)
[5] Assumes trapped argon is atmospheric. J-factor = 0.006548 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR308 Biotite (5.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	500	10	130.7	120.2	53.40	42.30	4.662	0.5502	4.171	5.525 ± 1.21	6.523 ± 1.43	7.665 ± 0.04	32.41 ± 0.31
2	600	10	71.27	20.62	31.78	19.68	23.16	3.283	18.06	12.92 ± 0.35	15.22 ± 0.41	14.08 ± 0.03	27.69 ± 0.16
3	680	10	46.80	15.27	43.98	8.520	95.95	14.61	45.76	21.44 ± 0.15	25.18 ± 0.17	21.47 ± 0.01	18.26 ± 0.11
4	740	13	41.01	14.09	9.972	4.466	160.5	33.55	67.23	27.60 ± 0.18	32.35 ± 0.21	24.52 ± 0.10	10.94 ± 0.07
5	780	10	40.71	13.96	6.546	3.590	70.68	41.89	73.16	29.89 ± 0.09	35.01 ± 0.11	24.70 ± 0.01	8.861 ± 0.07
6	840	10	47.48	14.38	7.407	5.660	48.83	47.65	63.97	30.54 ± 0.14	35.76 ± 0.16	21.16 ± 0.04	11.97 ± 0.08
7	900	14	48.16	14.72	9.323	5.860	80.16	57.11	63.35	30.63 ± 0.18	35.86 ± 0.20	20.86 ± 0.01	12.22 ± 0.12
8	1000	10	46.20	14.51	10.29	5.451	148.0	74.57	64.53	29.87 ± 0.10	34.99 ± 0.12	21.75 ± 0.01	11.85 ± 0.07
9	1100	10	50.98	14.59	5.842	7.004	160.2	93.48	58.93	30.06 ± 0.72	35.21 ± 0.84	19.70 ± 0.27	13.80 ± 0.22
10	1350	13	227.4	26.01	24.09	66.15	55.22	99.99	13.93	31.69 ± 2.33	37.10 ± 2.70	4.402 ± 0.039	29.12 ± 0.31

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 5.6x10^{-16}; m/e39 = 9.8x10^{-17}; m/e38 = 5.2x10^{-17}; m/e37 = 8.4x10^{-17}; m/e 36 = 9.8x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 078), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-19-2001)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)
[5] Assumes trapped argon is atmospheric. J-factor = 0 006556 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR312A Biotite (5.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	500	10	174.9	91.05	172.4	77.84	6.642	0.765	-	-	0 ± 0	5.723 ± 0.01	44.52 ± 0.13
2	600	10	80.13	19.97	50.71	25.51	32.54	4.516	5.701	4.568 ± 0.267	5.399 ± 0.32	12.51 ± 0.01	31.91 ± 0.11
3	680	10	44.09	14.22	20.29	8.979	96.96	15.69	39.35	17.35 ± 0.11	20.42 ± 0.13	22.80 ± 0.02	20.46 ± 0.09
4	740	14	29.02	12.30	2.632	2.031	175.3	35.90	78.46	22.80 ± 0.06	26.79 ± 0.07	34.72 ± 0.02	7.050 ± 0.06
5	780	12	27.49	12.41	2.209	1.461	77.90	44.87	83.18	22.95 ± 0.06	26.96 ± 0.07	36.68 ± 0.02	5.355 ± 0.07
6	840	10	30.52	12.55	3.417	2.217	47.35	50.33	77.32	23.75 ± 0.12	27.89 ± 0.14	33.01 ± 0.02	7.315 ± 0.13
7	900	13	31.09	12.55	3.222	1.897	73.79	58.83	80.94	25.26 ± 0.07	29.66 ± 0.08	32.40 ± 0.04	6.143 ± 0.07
8	1000	10	28.92	12.30	3.497	1.455	176.2	79.14	84.25	24.40 ± 0.07	28.65 ± 0.08	34.85 ± 0.02	5.068 ± 0.08
9	1100	10	27.85	12.29	3.138	1.510	143.4	95.67	83.07	23.17 ± 0.05	27.22 ± 0.06	36.19 ± 0.03	5.463 ± 0.05
10	1350	14	59.41	14.61	34.59	12.38	37.54	99.99	38.04	22.65 ± 0.28	26.61 ± 0.32	16.89 ± 0.04	20.89 ± 0.14

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 3.8×10^{-16}; m/e39 = 1.0×10^{-16}; m/e38 = 5.4×10^{-17}; m/e37 = 8.7×10^{-17}; m/e 36 = 1.0×10^{-16}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-19-2001)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224; $^{36}Ar/^{39}Ar_{Ca}$ = 0.0003; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)
[5] Assumes trapped argon is atmospheric. J-factor = 0.006561 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR314 Biotite (5.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	500	10	228.5	214.3	63.44	78.07	2.642	0.674	-	-	0 ± 0	4.380 ± 0.01	34.19 ± 0.23
2	600	10	146.1	75.18	45.03	48.67	1.854	1.148	1.393	2.068 ± 1.88	2.449 ± 2.22	6.857 ± 0.04	33.36 ± 0.43
3	680	10	101.1	31.32	42.79	31.47	3.212	1.968	7.733	7.929 ± 0.98	9.369 ± 1.15	9.913 ± 0.01	31.18 ± 0.33
4	740	13	73.39	19.63	33.49	21.50	6.008	3.502	13.03	9.665 ± 1.32	11.41 ± 1.56	13.67 ± 0.04	29.37 ± 0.61
5	780	10	58.45	16.49	29.25	15.44	5.584	4.927	21.33	12.64 ± 0.62	14.91 ± 0.73	17.17 ± 0.02	26.49 ± 0.36
6	840	10	50.55	15.52	30.10	11.66	14.37	8.596	31.26	15.90 ± 0.45	18.74 ± 0.52	19.87 ± 0.04	23.15 ± 0.30
7	900	18	39.43	13.81	40.43	6.842	47.24	20.66	48.14	19.03 ± 0.17	22.40 ± 0.20	25.50 ± 0.06	17.42 ± 0.13
8	1000	10	30.50	13.06	11.10	3.275	67.24	37.82	67.43	20.60 ± 0.09	24.25 ± 0.11	33.03 ± 0.02	10.81 ± 0.10
9	1100	10	26.99	12.68	5.463	1.852	100.8	63.55	78.79	21.29 ± 0.04	25.05 ± 0.04	37.36 ± 0.03	6.914 ± 0.04
10	1350	13	26.43	12.72	4.969	1.568	142.8	99.99	81.55	21.58 ± 0.03	25.39 ± 0.03	38.15 ± 0.01	5.976 ± 0.03

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $4.2x10^{-16}$; m/e39 = $8.4x10^{-17}$; m/e38 = $4.7x10^{-17}$; m/e37 = $7.7x10^{-17}$; m/e 36 = $8.8x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-17-2001)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224;$^{36}Ar/^{39}Ar_{Ca}$ = 0.0003;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)
[5] Assumes trapped argon is atmospheric. J-factor = 0.006567 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR317 Biotite (5.5mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-4}
1	500	10	144.9	88.54	139.9	45.38	27.36	4.846	7.361	10.68 ± 1.72	12.61 ± 2.03	6.913 ± 0.07	31.34 ± 0.38
2	600	10	77.58	69.43	118.0	19.30	40.58	12.03	26.29	20.44 ± 0.51	24.07 ± 0.60	12.93 ± 0.02	24.90 ± 0.22
3	680	10	83.79	66.45	60.59	12.40	34.20	18.09	55.91	46.97 ± 0.20	54.84 ± 0.23	11.97 ± 0.01	14.82 ± 0.07
4	740	14	84.55	61.97	38.21	7.384	34.51	24.20	73.79	62.55 ± 0.23	72.66 ± 0.26	11.86 ± 0.02	8.742 ± 0.06
5	780	10	84.64	60.93	31.42	5.950	23.15	28.30	78.74	66.86 ± 0.87	77.57 ± 0.99	11.85 ± 0.11	7.037 ± 0.18
6	840	10	88.42	67.28	43.07	8.825	37.87	35.01	70.19	62.16 ± 0.28	72.22 ± 0.32	11.34 ± 0.02	9.992 ± 0.09
7	900	14	95.38	73.12	58.40	11.17	53.91	44.56	65.16	62.21 ± 0.26	72.28 ± 0.30	10.51 ± 0.01	11.72 ± 0.09
8	1000	10	86.52	64.76	54.12	6.717	104.6	63.09	76.82	66.50 ± 0.13	77.16 ± 0.15	11.59 ± 0.01	7.765 ± 0.05
9	1100	10	78.07	56.81	26.86	2.353	144.3	88.64	90.80	70.91 ± 0.08	82.17 ± 0.09	12.85 ± 0.01	3.012 ± 0.03
10	1350	17	79.41	54.72	14.46	3.141	64.12	99.99	87.97	69.92 ± 0.18	81.04 ± 0.20	12.63 ± 0.01	3.962 ± 0.07

[1] Corrected for backgrounds (mean values in (mol): m/e40 = $3.2x10^{-16}$; m/e39 = $8.7x10^{-17}$; m/e38 = $5.0x10^{-17}$; m/e37 = $7.8x10^{-17}$; m/e 36 = $9.3x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.2 ± 0.7), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 06-17-2001; Analyzed: 09-14-2001)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.0224;$^{36}Ar/^{39}Ar_{Ca}$ = 0.0003;$^{39}Ar/^{37}Ar_{Ca}$ = 0.000769)

[5] Assumes trapped argon is atmospheric. J-factor = 0 006571 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR322 Biotite (5.4mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	13	71.85	122.7	107.1	232.1	3.794	0.5032	4.510	32.42 ± 8.12	39.93 ± 9.89	1.392 ± 0.006	323.1 ± 3.8
2	700	13	9.271	32.19	16.50	12.91	136.7	18.63	58.52	54.26 ± 0.44	66.34 ± 0.53	10.82 ± 0.03	139.7 ± 1.4
3	770	13	6.033	30.22	3.940	1.643	184.8	43.14	91.43	55.17 ± 0.19	67.43 ± 0.23	16.66 ± 0.04	27.36 ± 0.76
4	840	13	5.929	30.00	4.970	1.333	70.90	52.55	92.82	55.05 ± 0.19	67.29 ± 0.23	16.95 ± 0.03	22.57 ± 0.96
5	900	13	6.069	30.42	9.372	1.815	41.66	58.07	90.62	55.02 ± 0.32	67.26 ± 0.38	16.56 ± 0.02	30.02 ± 1.71
6	960	13	6.060	30.19	11.83	1.671	64.61	66.64	91.33	55.36 ± 0.22	67.67 ± 0.26	16.59 ± 0.03	27.67 ± 1.11
7	1020	13	5.975	30.58	25.12	1.569	61.94	74.85	91.73	54.83 ± 0.25	67.02 ± 0.30	16.82 ± 0.03	26.27 ± 1.31
8	1080	13	6.044	30.30	19.65	1.757	81.39	85.65	90.90	54.95 ± 0.24	67.17 ± 0.29	16.63 ± 0.03	29.14 ± 1.20
9	1150	13	6.111	30.17	25.71	1.933	97.66	98.60	90.16	55.11 ± 0.21	67.36 ± 0.26	16.45 ± 0.04	31.68 ± 0.94
10	1350	13	7.510	31.41	28.26	6.376	10.56	99.99	74.40	55.97 ± 1.15	68.40 ± 1.37	13.37 ± 0.04	85.15 ± 5.10

[1] Corrected for backgrounds (mean values in mol: m/e40 = 9.3 x10^{-17}; m/e39 = 4.1 x10^{-17}; m/e38 = 1.8 x10^{-17}; m/e37 = 2.4 x10^{-17}; m/e36 = 2.8 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-12-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006903 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR328 Biotite (4.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-4}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-5}
1	500	13	124.4	75.27	79.15	374.3	14.91	3.722	10.89	13.56 ± 1.74	16.79 ± 2.14	8.058 ± 0.020	301.4 ± 4.7
2	700	13	62.22	45.57	32.86	73.41	40.01	13.71	64.66	40.25 ± 0.38	49.40 ± 0.46	16.15 ± 0.03	118.4 ± 2.0
3	770	13	62.57	42.39	16.99	23.97	28.81	20.91	88.16	55.19 ± 0.42	67.39 ± 0.51	16.06 ± 0.02	38.43 ± 2.25
4	840	13	63.53	43.48	14.39	25.47	31.65	28.81	87.65	55.71 ± 0.44	68.01 ± 0.52	15.82 ± 0.03	40.22 ± 2.27
5	900	13	64.29	42.62	17.43	20.60	32.99	37.04	90.03	57.91 ± 0.41	70.64 ± 0.49	15.63 ± 0.02	32.13 ± 2.10
6	960	13	65.68	45.33	23.91	30.88	41.18	47.32	85.64	56.27 ± 0.34	68.69 ± 0.40	15.30 ± 0.02	47.14 ± 1.65
7	1020	13	62.49	41.43	19.08	12.42	60.64	62.47	93.63	58.53 ± 0.22	71.38 ± 0.27	16.08 ± 0.03	19.89 ± 1.05
8	1080	13	60.46	40.00	7.402	8.077	83.24	83.25	95.54	57.77 ± 0.18	70.48 ± 0.21	16.62 ± 0.03	13.39 ± 0.81
9	1150	13	61.68	39.59	8.067	14.00	58.83	97.94	92.78	57.24 ± 0.25	69.85 ± 0.30	16.29 ± 0.03	22.77 ± 1.29
10	1350	13	140.4	44.10	19.44	277.2	8.252	99.99	41.42	58.23 ± 2.10	71.03 ± 2.52	7.136 ± 0.022	197.8 ± 5.0

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.0 x10^{-17}; m/e39 = 3.5 x10^{-17}; m/e38 = 1.6 x10^{-17}; m/e37 = 2.6 x10^{-17}; m/e36 = 2.5 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-14-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006896 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR332A Biotite (4.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-5}
1	500	13	177.8	68.92	101.4	52.96	12.82	1.877	11.87	21.12 ± 1.88	26.07 ± 2.30	5.632 ± 0.017	298.2 ± 3.5
2	700	13	68.74	45.89	36.02	5.079	127.3	20.52	77.76	53.46 ± 0.24	65.28 ± 0.29	14.61 ± 0.04	74.07 ± 0.81
3	770	13	58.96	46.53	6.798	0.7616	126.7	39.07	95.66	56.41 ± 0.17	68.82 ± 0.20	17.05 ± 0.04	12.95 ± 0.65
4	840	13	59.24	46.21	8.476	0.6856	74.47	49.97	96.05	56.91 ± 0.20	69.42 ± 0.24	16.97 ± 0.03	11.59 ± 0.95
5	900	13	61.17	45.91	14.26	1.182	51.02	57.44	93.77	57.38 ± 0.26	69.98 ± 0.31	16.43 ± 0.02	19.36 ± 1.34
6	960	13	60.68	45.00	11.85	0.9222	72.76	68.09	95.00	57.66 ± 0.22	70.31 ± 0.26	16.56 ± 0.03	15.22 ± 1.07
7	1020	13	59.37	45.61	8.583	0.8183	115.8	85.04	95.41	56.65 ± 0.17	69.11 ± 0.20	16.93 ± 0.04	13.82 ± 0.68
8	1080	13	59.73	46.18	9.811	1.049	81.38	96.96	94.29	56.33 ± 0.18	68.72 ± 0.22	16.83 ± 0.03	17.62 ± 0.88
9	1150	13	69.52	46.01	84.88	4.712	15.01	99.16	79.54	55.36 ± 0.85	67.56 ± 1.02	14.45 ± 0.03	67.75 ± 4.10
10	1350	13	184.0	52.84	31.27	42.76	5.767	99.99	31.13	57.34 ± 2.90	69.93 ± 3.47	5.444 ± 0.017	232.8 ± 5.3

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.0 x10^{-17}; m/e39 = 3.5 x10^{-17}; m/e38 = 1.6 x10^{-17}; m/e37 = 2.6 x10^{-17}; m/e36 = 2.5 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-14-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006896 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR333A Biotite (4.2mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-5}
1	500	13	29.82	115.7	113.5	91.25	8.018	1.432	9.513	28.38 ± 2.97	34.52 ± 3.58	3.356 ± 0.012	306.2 ± 3.3
2	700	13	8.655	66.56	47.92	10.64	134.7	25.48	63.37	54.86 ± 0.38	66.13 ± 0.45	11.59 ± 0.03	123.2 ± 1.2
3	770	13	6.142	64.66	6.335	1.566	112.8	45.62	91.97	56.50 ± 0.17	68.07 ± 0.20	16.36 ± 0.04	25.59 ± 0.60
4	840	13	6.237	64.68	14.27	2.123	43.86	53.45	89.44	55.80 ± 0.29	67.25 ± 0.34	16.11 ± 0.02	34.14 ± 1.52
5	900	13	6.285	62.67	26.67	2.511	34.17	59.55	87.70	55.14 ± 0.39	66.47 ± 0.46	15.99 ± 0.03	40.04 ± 2.03
6	960	13	6.276	65.37	24.29	2.135	55.38	69.43	89.47	56.16 ± 0.26	67.67 ± 0.30	16.01 ± 0.03	34.08 ± 1.29
7	1020	13	6.192	65.34	17.69	1.926	54.50	79.16	90.31	55.94 ± 0.25	67.41 ± 0.30	16.23 ± 0.03	31.19 ± 1.26
8	1080	13	6.209	64.89	12.06	2.042	77.77	93.05	89.79	55.76 ± 0.20	67.20 ± 0.24	16.18 ± 0.03	33.00 ± 0.97
9	1150	13	6.492	63.95	46.65	3.032	35.16	99.33	85.75	55.70 ± 0.43	67.12 ± 0.51	15.48 ± 0.03	46.73 ± 2.18
10	500	13	22.26	73.03	101.9	58.38	3.779	99.99	22.37	49.85 ± 3.85	60.19 ± 4.57	4.498 ± 0.016	262.5 ± 5.8

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.5 x10^{-17}; m/e39 = 3.6 x10^{-17}; m/e38 = 1.4 x10^{-17}; m/e37 = 2.3 x10^{-17}; m/e36 = 2.2 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-15-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006806 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR337 Biotite (4.6mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-2}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1σ x10^{-4}
1	500	13	10.73	42.95	4.782	33.70	30.93	7.310	6.929	7.436 ± 0.973	9.130 ± 1.192	9.348 ± 0.021	31.49 ± 0.31
2	700	13	5.606	19.74	3.734	13.28	221.4	59.65	29.49	16.54 ± 0.25	20.24 ± 0.31	17.94 ± 0.05	23.80 ± 0.14
3	770	13	7.127	18.18	3.333	16.26	27.31	66.11	32.18	22.95 ± 0.64	28.03 ± 0.77	14.09 ± 0.02	22.90 ± 0.30
4	840	13	6.322	17.36	3.507	13.22	27.01	72.49	37.75	23.88 ± 0.57	29.16 ± 0.69	15.90 ± 0.03	20.99 ± 0.30
5	900	13	6.367	18.64	4.301	13.62	40.65	82.10	36.35	23.16 ± 0.49	28.28 ± 0.59	15.78 ± 0.02	21.48 ± 0.26
6	960	13	6.091	18.30	5.260	13.09	40.46	91.66	36.05	21.97 ± 0.49	26.84 ± 0.59	16.50 ± 0.03	21.58 ± 0.27
7	1020	13	6.657	18.01	4.065	14.85	28.58	98.42	33.64	22.41 ± 0.58	27.38 ± 0.70	15.09 ± 0.03	22.40 ± 0.29
8	1080	13	7.785	18.30	16.03	17.90	5.288	99.67	31.73	24.76 ± 2.41	30.23 ± 2.92	12.90 ± 0.05	23.04 ± 1.05
9	1150	13	12.16	21.11	121.9	34.03	1.120	99.93	17.71	21.70 ± 9.77	26.52 ± 11.86	8.239 ± 0.055	27.79 ± 2.72
10	500	13	63.16	62.27	50.05	206.4	0.2849	99.99	3.402	21.61 ± 45.84	26.40 ± 55.61	1.584 ± 0.032	32.68 ± 2.45

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.5 x10^{-17}; m/e39 = 4.0 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 2.7 x10^{-17}; m/e36 = 2.4 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-20-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006823 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR339 Biotite (5.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$	$^{38}Ar/^{39}Ar^{1}$ x10^{-3}	$^{37}Ar/^{39}Ar^{1}$ x10^{-3}	$^{36}Ar/^{39}Ar^{1}$ x10^{-3}	$^{39}Ar_K{}^{2}$ (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^{4}$ ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar^{6}$ ± 1σ x10^{-5}
1	500	13	27.96	121.9	60.59	84.44	9.503	1.349	10.65	29.78 ± 2.20	36.31 ± 2.65	3.581 ± 0.009	302.3 ± 2.6
2	700	13	7.772	70.52	10.26	7.978	147.8	22.34	69.28	53.85 ± 0.29	65.13 ± 0.35	12.92 ± 0.03	103.0 ± 1.0
3	770	13	5.826	70.23	2.732	1.177	153.6	44.15	93.50	54.48 ± 0.17	65.88 ± 0.21	17.25 ± 0.04	20.30 ± 0.51
4	840	13	5.841	69.90	3.695	1.181	60.22	52.70	93.48	54.61 ± 0.18	66.04 ± 0.22	17.21 ± 0.02	20.32 ± 0.96
5	900	13	5.952	70.05	6.789	1.639	40.44	58.45	91.32	54.37 ± 0.28	65.75 ± 0.33	16.89 ± 0.03	27.65 ± 1.49
6	960	13	5.910	70.38	4.579	1.405	68.33	68.15	92.44	54.64 ± 0.23	66.07 ± 0.27	17.01 ± 0.03	23.89 ± 1.19
7	1020	13	5.873	69.89	3.057	1.351	89.12	80.80	92.67	54.43 ± 0.19	65.82 ± 0.22	17.12 ± 0.03	23.11 ± 0.92
8	1080	13	5.924	69.94	2.815	1.508	94.06	94.16	91.95	54.48 ± 0.17	65.88 ± 0.20	16.97 ± 0.03	25.58 ± 0.78
9	1150	13	6.026	69.94	14.79	1.845	40.29	99.88	90.43	54.51 ± 0.25	65.92 ± 0.30	16.68 ± 0.02	30.71 ± 1.34
10	1350	13	24.22	68.60	144.7	67.35	0.8323	99.99	17.68	43.02 ± 12.17	52.21 ± 14.56	4.133 ± 0.036	278.2 ± 16.9

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.2 x10^{-17}; m/e39 = 3.4 x10^{-17}; m/e38 = 1.5 x10^{-17}; m/e37 = 2.4 x10^{-17}; m/e36 = 2.4 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-20-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006827 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR348A Biotite (5.6mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	13	194.9	85.35	52.53	59.21	12.93	1.796	10.08	19.66 ± 1.91	24.01 ± 2.32	5.139 ± 0.011	304.2 ± 3.3
2	700	13	67.05	50.75	20.85	5.807	94.76	14.96	73.96	49.60 ± 0.27	59.96 ± 0.32	14.98 ± 0.03	86.92 ± 1.18
3	770	13	59.42	49.76	6.631	1.122	88.51	27.26	93.89	55.80 ± 0.19	67.31 ± 0.22	16.92 ± 0.03	18.96 ± 0.92
4	840	13	58.91	50.13	7.446	0.9051	70.98	37.12	94.93	55.93 ± 0.19	67.47 ± 0.22	17.06 ± 0.03	15.41 ± 0.93
5	900	13	59.18	50.67	21.25	1.341	57.53	45.11	92.79	54.93 ± 0.22	66.28 ± 0.27	16.98 ± 0.03	22.68 ± 1.17
6	960	13	59.15	53.33	60.45	1.234	87.85	57.32	93.38	55.25 ± 0.20	66.66 ± 0.23	16.99 ± 0.03	20.69 ± 0.97
7	1020	13	58.52	55.32	96.95	0.8942	109.3	72.50	95.08	55.65 ± 0.17	67.14 ± 0.20	17.18 ± 0.03	14.91 ± 0.69
8	1080	13	58.50	49.41	4.933	0.8030	142.8	92.34	95.42	55.83 ± 0.17	67.34 ± 0.20	17.18 ± 0.04	13.77 ± 0.55
9	1150	13	60.46	50.16	31.04	1.436	52.35	99.62	92.49	55.94 ± 0.23	67.47 ± 0.27	16.62 ± 0.02	23.73 ± 1.20
10	500	13	248.8	64.99	50.12	65.77	2.764	99.99	21.74	54.17 ± 5.39	65.38 ± 6.39	4.025 ± 0.026	264.6 ± 7.2

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.0 x10^{-17}; m/e39 = 3.6 x10^{-17}; m/e38 = 1.6 x10^{-17}; m/e37 = 2.6 x10^{-17}; m/e36 = 2.4 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-16-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006813 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR353 Biotite (6.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1σ x10^{-5}
1	500	13	308.9	87.55	92.91	93.26	6.279	0.7809	10.71	33.09 ± 3.92	40.70 ± 4.76	3.240 ± 0.012	302.1 ± 4.3
2	700	13	83.33	51.32	53.16	10.33	172.6	22.25	63.03	52.53 ± 0.40	64.18 ± 0.48	12.04 ± 0.04	124.3 ± 1.3
3	770	13	58.06	51.76	3.265	1.528	201.8	47.35	91.69	53.24 ± 0.18	65.03 ± 0.21	17.31 ± 0.04	26.44 ± 0.73
4	840	13	57.42	50.79	4.925	1.356	83.50	57.73	92.48	53.12 ± 0.21	64.88 ± 0.25	17.51 ± 0.03	23.71 ± 1.04
5	900	13	59.06	49.16	5.572	1.905	44.42	63.25	89.92	53.13 ± 0.30	64.90 ± 0.36	17.02 ± 0.03	32.40 ± 1.65
6	960	13	59.57	51.55	6.171	1.736	60.44	70.77	90.86	54.14 ± 0.21	66.12 ± 0.25	16.87 ± 0.02	29.25 ± 1.08
7	1020	13	59.04	51.49	6.686	1.790	81.81	80.94	90.52	53.45 ± 0.19	65.28 ± 0.23	17.03 ± 0.03	30.44 ± 0.97
8	1080	13	59.28	51.58	4.337	1.829	94.10	92.65	90.35	53.57 ± 0.17	65.43 ± 0.21	16.96 ± 0.03	31.00 ± 0.76
9	1150	13	59.16	51.97	17.90	1.903	56.78	99.71	89.98	53.25 ± 0.24	65.04 ± 0.28	16.99 ± 0.03	32.25 ± 1.26
10	500	13	141.2	50.51	81.81	30.27	2.357	99.99	36.40	51.56 ± 5.45	63.01 ± 6.54	7.095 ± 0.032	214.6 ± 13.0

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.2 x10^{-17}; m/e39 = 3.7 x10^{-17}; m/e38 = 1.6 x10^{-17}; m/e37 = 2.7 x10^{-17}; m/e36 = 2.5 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-13-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences$^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006894 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR361 Biotite (6.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	13	18.85	99.91	38.60	42.77	16.84	2.423	32.81	6.188 ± 0.15	75.48 ± 1.74	5.31 ± 0.01	227.2 ± 2.54
2	700	13	14.40	63.29	48.42	5.024	98.23	16.55	89.49	12.88 ± 0.05	153.8 ± 0.60	6.96 ± 0.02	34.88 ± 0.78
3	770	13	14.06	62.28	5.143	1.377	88.72	29.32	96.88	13.62 ± 0.04	162.2 ± 0.48	7.13 ± 0.02	9.805 ± 0.55
4	840	13	13.96	61.66	2.690	0.934	83.80	41.37	97.79	13.65 ± 0.04	162.5 ± 0.46	7.18 ± 0.02	6.700 ± 0.52
5	900	13	13.84	62.33	5.280	1.143	88.93	54.17	97.33	13.48 ± 0.04	160.5 ± 0.46	7.24 ± 0.02	8.261 ± 0.60
6	960	13	13.65	61.61	5.057	0.877	59.45	62.72	97.87	13.36 ± 0.04	159.2 ± 0.45	7.34 ± 0.02	6.429 ± 0.51
7	1020	14	13.68	61.27	5.931	0.876	174.1	87.76	97.87	13.39 ± 0.04	159.6 ± 0.44	7.33 ± 0.02	6.406 ± 0.61
8	1080	14	13.97	60.68	5.881	0.881	70.54	97.91	97.90	13.68 ± 0.04	162.8 ± 0.50	7.18 ± 0.02	6.308 ± 0.73
9	1150	13	14.65	60.95	218.2	2.697	9.234	99.23	94.39	13.84 ± 0.12	164.7 ± 1.39	6.84 ± 0.02	18.05 ± 2.59
10	1350	13	17.12	62.25	26.90	10.34	5.322	99.99	81.87	14.03 ± 0.26	166.9 ± 2.97	5.85 ± 0.02	60.49 ± 5.04

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 8.0x10^{-17}; m/e39 = 4.4x10^{-17}; m/e38 = 1.9x10^{-17}; m/e37 = 3.0x10^{-17}; m/e 36 = 2.8x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 05-03-2002; Analyzed: 09-12-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000271; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000772)

[5] Assumes trapped argon is atmospheric. J-factor = 0.006905 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR364 Biotite (6.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-4}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	500	13	59.40	131.9	483.4	191.6	6.960	0.7235	4.629	27.50 ± 5.44	33.47 ± 6.56	1.684 ± 0.006	322.7 ± 3.1
2	700	13	7.444	42.19	65.62	7.361	164.3	17.80	70.36	52.38 ± 0.91	63.23 ± 1.08	13.49 ± 0.15	99.27 ± 1.92
3	770	13	6.017	41.21	11.92	1.357	204.8	39.09	92.81	55.85 ± 0.58	67.34 ± 0.69	16.70 ± 0.16	22.67 ± 0.94
4	840	13	5.811	41.52	13.05	1.039	85.84	48.02	94.16	54.73 ± 0.19	66.01 ± 0.23	17.30 ± 0.03	17.97 ± 0.97
5	900	13	5.904	41.64	18.86	1.304	62.27	54.49	92.92	54.89 ± 0.26	66.20 ± 0.31	17.02 ± 0.03	22.19 ± 1.40
6	960	13	5.861	41.44	17.07	1.162	108.4	65.76	93.60	54.87 ± 0.17	66.18 ± 0.20	17.15 ± 0.03	19.92 ± 0.78
7	1020	13	5.849	41.54	17.21	1.257	106.5	76.83	93.11	54.47 ± 0.18	65.71 ± 0.21	17.19 ± 0.04	21.60 ± 0.79
8	1080	13	5.937	41.81	10.99	1.497	139.1	91.30	92.02	54.64 ± 0.18	65.91 ± 0.21	16.93 ± 0.04	25.34 ± 0.65
9	1150	13	6.100	41.62	53.85	2.037	76.48	99.25	89.61	54.68 ± 0.22	65.95 ± 0.27	16.47 ± 0.02	33.54 ± 1.14
10	500	13	15.49	46.22	135.6	32.66	7.235	99.99	37.45	58.06 ± 4.88	69.95 ± 5.76	6.470 ± 0.150	211.3 ± 8.8

[1] Corrected for backgrounds (mean values in mol: m/e40 = 9.7 x10^{-17}; m/e39 = 4.6 x10^{-17}; m/e38 = 1.9 x10^{-17}; m/e37 = 2.8 x10^{-17}; m/e36 = 2.9 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-16-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006809 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR365 Biotite (6.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{-1}	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-4}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	13	110.5	90.46	38.59	305.5	21.58	2.985	18.06	19.98 ± 1.16	24.41 ± 1.41	9.072 ± 0.019	277.1 ± 3.5
2	700	13	68.80	65.22	31.11	52.40	69.32	12.57	77.07	53.03 ± 0.31	64.10 ± 0.37	14.60 ± 0.02	76.38 ± 1.45
3	770	13	69.51	66.40	4.815	14.95	57.24	20.49	93.19	64.79 ± 0.24	78.00 ± 0.28	14.45 ± 0.02	21.58 ± 1.06
4	840	13	69.65	67.46	5.190	15.35	46.80	26.96	93.02	64.81 ± 0.30	78.03 ± 0.35	14.42 ± 0.02	22.12 ± 1.36
5	900	13	70.00	67.15	6.300	14.44	46.53	33.39	93.45	65.43 ± 0.27	78.76 ± 0.32	14.35 ± 0.02	20.69 ± 1.24
6	960	13	70.85	67.34	6.221	11.08	83.72	44.97	94.94	67.28 ± 0.21	80.94 ± 0.25	14.17 ± 0.03	15.68 ± 0.78
7	1020	13	67.63	65.07	4.146	6.294	138.1	64.07	96.79	65.47 ± 0.20	78.80 ± 0.24	14.85 ± 0.04	9.332 ± 0.518
8	1080	13	65.68	64.69	2.894	5.144	174.5	88.20	97.21	63.86 ± 0.19	76.91 ± 0.22	15.30 ± 0.03	7.857 ± 0.603
9	1150	13	65.52	64.71	16.84	6.929	79.47	99.19	96.41	63.18 ± 0.20	76.10 ± 0.23	15.33 ± 0.02	10.56 ± 0.89
10	500	13	91.96	65.29	19.84	99.15	5.841	99.99	67.69	62.37 ± 1.97	75.15 ± 2.32	10.91 ± 0.04	108.1 ± 7.2

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.1 x10^{-17}; m/e39 = 4.0 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 2.7 x10^{-17}; m/e36 = 2.6 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-20-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006820 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR366 Biotite (6.5mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	500	13	127.5	64.78	66.24	376.2	22.71	3.294	12.64	16.13 ± 1.28	19.98 ± 1.57	7.859 ± 0.014	295.5 ± 3.4
2	700	13	58.98	29.81	48.51	49.25	169.9	27.94	74.86	44.16 ± 0.24	54.19 ± 0.29	17.04 ± 0.04	83.71 ± 1.17
3	770	13	65.25	28.48	8.765	14.57	85.28	40.30	92.92	60.65 ± 0.20	74.01 ± 0.24	15.40 ± 0.03	22.40 ± 0.84
4	840	13	66.97	28.74	8.673	14.41	62.03	49.30	93.16	62.41 ± 0.20	76.12 ± 0.24	15.00 ± 0.02	21.57 ± 0.93
5	900	13	69.56	29.20	10.41	19.18	57.88	57.69	91.39	63.60 ± 0.25	77.53 ± 0.30	14.44 ± 0.02	27.66 ± 1.06
6	960	13	71.32	29.07	12.54	17.48	77.17	68.88	92.32	65.86 ± 1.00	80.23 ± 1.20	14.08 ± 0.20	24.57 ± 1.00
7	1020	13	68.51	29.11	17.79	15.54	82.63	80.87	92.85	63.63 ± 0.21	77.57 ± 0.25	14.66 ± 0.03	22.71 ± 0.81
8	1080	13	64.62	28.24	8.006	9.344	88.71	93.73	95.24	61.56 ± 0.19	75.10 ± 0.22	15.55 ± 0.03	14.49 ± 0.78
9	1150	13	63.67	28.41	38.41	13.27	34.15	98.68	93.35	59.47 ± 0.35	72.60 ± 0.42	15.78 ± 0.02	20.78 ± 1.82
10	1350	13	80.80	29.95	13.82	66.95	9.088	99.99	75.00	60.72 ± 1.37	74.10 ± 1.63	12.42 ± 0.03	83.13 ± 5.67

[1] Corrected for backgrounds (mean values in mol: m/e40 = 9.5 x10^{-17}; m/e39 = 4.6 x10^{-17}; m/e38 = 2.0 x10^{-17}; m/e37 = 3.0 x10^{-17}; m/e36 = 2.8 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-12-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006905 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR368 Biotite (5.7mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-4}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	500	13	155.8	85.33	86.17	475.3	20.49	3.252	9.682	15.09 ± 1.28	18.45 ± 1.56	6.432 ± 0.012	305.6 ± 2.8
2	700	13	63.81	53.18	45.48	62.43	68.80	14.17	70.64	45.09 ± 0.34	54.57 ± 0.40	15.75 ± 0.03	98.12 ± 1.69
3	770	13	69.69	53.84	11.67	18.00	51.69	22.38	91.91	64.08 ± 0.31	77.06 ± 0.36	14.41 ± 0.02	25.89 ± 1.37
4	840	13	69.16	54.44	11.24	14.99	56.63	31.36	93.13	64.43 ± 0.27	77.49 ± 0.31	14.52 ± 0.02	21.73 ± 1.21
5	900	13	70.62	54.54	15.84	16.56	54.33	39.99	92.62	65.43 ± 0.28	78.66 ± 0.33	14.22 ± 0.02	23.49 ± 1.24
6	960	13	71.78	55.11	27.37	17.03	77.00	52.21	92.57	66.47 ± 0.25	79.88 ± 0.29	13.99 ± 0.03	23.72 ± 1.00
7	1020	13	68.30	52.82	20.63	9.427	125.3	72.09	95.48	65.23 ± 0.20	78.42 ± 0.23	14.71 ± 0.04	13.78 ± 0.51
8	1080	13	67.09	51.50	6.172	8.572	128.5	92.49	95.76	64.26 ± 0.20	77.28 ± 0.23	14.97 ± 0.04	12.81 ± 0.54
9	1150	13	71.81	51.51	25.59	28.02	38.11	98.54	88.03	63.24 ± 0.36	76.09 ± 0.43	13.99 ± 0.02	39.10 ± 1.63
10	500	13	147.1	55.19	19.56	288.5	9.189	99.99	41.81	61.58 ± 2.75	74.12 ± 3.24	6.811 ± 0.092	196.5 ± 5.1

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.5 x10^{-17}; m/e39 = 3.7 x10^{-17}; m/e38 = 1.5 x10^{-17}; m/e37 = 2.5 x10^{-17}; m/e36 = 2.4 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-16-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006811 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR370 Biotite (5.3mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	500	13	34.97	95.66	40.15	104.5	6.091	0.7808	11.57	40.50 ± 3.90	49.66 ± 4.71	2.862 ± 0.011	299.2 ± 3.7
2	700	13	9.128	29.48	5.722	10.26	158.6	21.12	66.43	60.65 ± 0.38	73.88 ± 0.45	10.99 ± 0.03	112.8 ± 1.1
3	770	13	6.500	27.79	1.577	1.225	201.5	46.95	93.94	61.07 ± 0.20	74.38 ± 0.24	15.46 ± 0.04	18.94 ± 0.58
4	840	13	6.459	27.76	2.221	1.199	72.13	56.19	94.02	60.74 ± 0.22	73.98 ± 0.27	15.56 ± 0.03	18.64 ± 1.02
5	900	13	6.590	27.71	5.995	1.717	41.38	61.50	91.80	60.53 ± 0.30	73.73 ± 0.36	15.25 ± 0.02	26.16 ± 1.45
6	960	13	6.597	28.08	4.285	1.622	59.48	69.12	92.24	60.88 ± 0.26	74.15 ± 0.31	15.23 ± 0.02	24.69 ± 1.23
7	1020	13	6.613	27.89	5.759	1.655	124.0	85.02	92.13	60.94 ± 0.21	74.22 ± 0.25	15.19 ± 0.04	25.12 ± 0.70
8	1080	13	6.637	27.95	13.48	1.763	85.05	95.93	91.69	60.87 ± 0.21	74.13 ± 0.25	15.14 ± 0.03	26.63 ± 0.88
9	1150	13	6.899	27.72	247.7	2.471	30.77	99.87	89.21	61.59 ± 0.48	75.00 ± 0.57	14.56 ± 0.03	35.00 ± 2.23
10	500	13	40.79	44.52	191.6	115.2	1.014	99.99	16.44	67.28 ± 16.81	81.76 ± 19.98	2.453 ± 0.022	282.6 ± 13.9

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.8 x10^{-17}; m/e39 = 4.7 x10^{-17}; m/e38 = 2.0 x10^{-17}; m/e37 = 3.0 x10^{-17}; m/e36 = 2.9 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-13-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006892 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR374 Biotite (5.3mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	500	13	121.1	158.4	161.3	391.6	2.545	0.8452	4.422	53.59 ± 211.33	34.47 ± 134.64	8.258 ± 1.040	323.4 ± 57.7
2	700	13	16.67	31.74	108.2	29.93	25.79	9.408	46.74	77.94 ± 2.71	49.92 ± 1.71	60.12 ± 0.78	179.8 ± 4.1
3	770	13	13.06	28.79	13.12	8.003	40.95	23.00	81.61	106.7 ± 1.2	67.97 ± 0.75	76.75 ± 0.64	61.40 ± 1.36
4	840	13	11.86	28.18	9.471	3.227	49.47	39.43	91.65	108.8 ± 0.9	69.29 ± 0.59	84.53 ± 0.63	27.26 ± 1.01
5	900	13	11.75	28.34	14.22	3.151	26.91	48.36	91.74	107.9 ± 1.6	68.72 ± 1.00	85.35 ± 1.09	26.86 ± 1.57
6	960	13	11.82	28.12	17.87	3.457	18.57	54.53	90.99	107.6 ± 2.3	68.56 ± 1.41	84.88 ± 1.49	29.31 ± 2.64
7	1020	13	11.93	28.72	39.44	3.651	18.67	60.73	90.62	108.2 ± 2.3	68.95 ± 1.43	84.03 ± 1.47	30.61 ± 2.68
8	1080	13	11.91	28.21	45.33	2.840	27.56	69.89	92.63	110.3 ± 1.5	70.27 ± 0.96	84.24 ± 1.00	23.83 ± 1.79
9	1150	13	11.64	27.66	51.23	2.540	41.96	83.82	93.25	108.6 ± 1.0	69.18 ± 0.62	86.16 ± 0.68	21.78 ± 1.08
10	1350	13	11.59	27.61	40.44	2.516	48.73	99.99	93.28	108.1 ± 0.9	68.89 ± 0.56	86.55 ± 0.60	21.70 ± 1.20

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.8 x10^{-17}; m/e39 = 4.7 x10^{-17}; m/e38 = 2.0 x10^{-17}; m/e37 = 3.0 x10^{-17}; m/e36 = 2.9 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-13-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006892 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR404 Biotite (4.2mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-2}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-4}
1	500	13	134.2	136.9	29.81	438.8	2.363	1.188	3.372	45.28 ± 138.02	29.19 ± 88.25	7.451 ± 0.549	32.70 ± 3.42
2	700	13	16.00	26.89	14.79	35.94	37.47	20.03	33.45	53.54 ± 1.43	34.46 ± 0.91	62.63 ± 0.32	22.49 ± 0.27
3	770	13	14.18	23.36	4.682	18.13	38.39	39.33	61.98	87.93 ± 1.10	56.26 ± 0.70	70.68 ± 0.40	12.81 ± 0.19
4	840	13	14.18	23.53	5.472	14.41	12.47	45.61	69.68	98.92 ± 2.65	63.16 ± 1.67	70.69 ± 1.04	10.18 ± 0.42
5	900	13	15.04	23.78	6.068	17.37	11.46	51.37	65.61	98.78 ± 2.91	63.08 ± 1.82	66.63 ± 1.05	11.57 ± 0.42
6	960	13	14.69	24.03	6.933	17.15	15.43	59.13	65.26	95.95 ± 2.13	61.30 ± 1.34	68.23 ± 0.81	11.69 ± 0.31
7	1020	13	14.40	23.51	18.41	15.77	19.81	69.09	67.45	97.21 ± 1.77	62.09 ± 1.11	69.59 ± 0.68	10.95 ± 0.28
8	1080	13	13.66	23.18	31.66	13.50	22.57	80.44	70.65	96.58 ± 1.59	61.69 ± 1.00	73.38 ± 0.63	9.857 ± 0.280
9	1150	13	13.05	24.99	46.77	10.78	28.60	94.82	75.53	98.64 ± 1.28	62.99 ± 0.81	76.81 ± 0.60	8.201 ± 0.215
10	500	13	14.07	30.78	104.1	13.12	10.31	99.99	72.63	102.4 ± 3.0	65.36 ± 1.88	71.17 ± 1.25	9.174 ± 0.439

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.1 x10^{-16}; m/e39 = 3.5 x10^{-18}; m/e38 = 8.4 x10^{-18}; m/e37 = 2.7 x10^{-17}; m/e36 = 1.5 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-04-2003)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)

[5] J-factor = 0.003602 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR410 Biotite (5.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-4}
1	500	13	52.22	92.96	43.72	167.4	9.535	3.096	5.230	2.732 ± 0.471	17.66 ± 3.03	19.16 ± 0.05	32.07 ± 0.30
2	700	13	15.54	67.19	32.57	34.54	43.91	17.35	34.12	5.304 ± 0.091	34.13 ± 0.58	64.47 ± 0.14	22.27 ± 0.19
3	770	13	14.38	62.36	17.87	14.40	31.72	27.65	70.16	10.09 ± 0.07	64.40 ± 0.46	69.71 ± 0.18	10.03 ± 0.15
4	840	13	14.30	61.19	15.12	8.945	26.51	36.26	81.26	11.63 ± 0.07	73.98 ± 0.47	70.09 ± 0.17	6.267 ± 0.159
5	900	13	14.25	60.39	16.14	6.813	23.37	43.85	85.60	12.20 ± 0.08	77.58 ± 0.51	70.35 ± 0.20	4.790 ± 0.171
6	960	13	14.17	60.93	25.09	7.845	20.53	50.51	83.37	11.82 ± 0.11	75.18 ± 0.67	70.76 ± 0.16	5.547 ± 0.247
7	1020	13	14.26	63.55	62.58	8.902	30.21	60.32	81.32	11.60 ± 0.08	73.84 ± 0.52	70.28 ± 0.19	6.247 ± 0.176
8	1080	13	14.05	64.10	119.4	7.081	41.53	73.80	84.90	11.94 ± 0.07	75.91 ± 0.43	71.33 ± 0.23	5.032 ± 0.130
9	1150	13	13.92	58.67	25.22	6.041	43.01	87.77	86.92	12.10 ± 0.05	76.94 ± 0.32	72.03 ± 0.18	4.347 ± 0.093
10	500	13	14.03	58.01	53.66	6.156	37.67	99.99	86.79	12.18 ± 0.06	77.44 ± 0.37	71.45 ± 0.17	4.390 ± 0.120

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.8 x10^{-17}; m/e39 = 3.5 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 3.0 x10^{-17}; m/e36 = 1.9 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-03-2003)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)
[5] J-factor = 0.003601 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR411 Biotite (2.6mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-16}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	500	13	131.8	147.6	65.05	422.5	20.28	2.093	5.260	6.939 ± 4.162	44.45 ± 26.34	7.588 ± 0.158	320.6 ± 10.4
2	700	13	11.62	74.96	106.2	12.30	131.7	15.68	68.41	7.961 ± 0.132	50.90 ± 0.83	86.30 ± 0.47	105.9 ± 3.4
3	770	13	12.65	84.97	12.25	4.339	112.1	27.25	89.48	11.34 ± 1.25	72.07 ± 7.80	79.24 ± 7.77	34.36 ± 5.91
4	840	13	12.02	87.13	1.206	0.8659	88.64	36.40	97.41	11.73 ± 0.29	74.53 ± 1.79	83.41 ± 1.76	7.220 ± 3.855
5	900	13	12.57	85.95	-	-	50.76	41.63	99.44	12.54 ± 0.32	79.53 ± 2.00	79.77 ± 1.43	-
6	960	13	12.97	85.76	-	0.6217	40.03	45.77	97.95	12.75 ± 0.42	80.87 ± 2.60	77.29 ± 1.79	4.811 ± 7.643
7	1020	13	13.17	90.52	5.590	1.254	54.27	51.37	96.66	12.76 ± 0.40	80.92 ± 2.51	76.15 ± 2.01	9.537 ± 5.381
8	1080	13	12.53	87.79	7.030	0.6315	121.0	63.86	98.11	12.31 ± 0.23	78.12 ± 1.46	80.01 ± 1.32	5.040 ± 2.985
9	1150	13	11.81	89.50	11.59	0.6303	214.2	85.96	98.06	11.59 ± 0.19	73.66 ± 1.17	84.89 ± 1.30	5.328 ± 1.521
10	1350	13	11.93	86.47	60.44	0.8130	136.0	99.99	97.61	11.66 ± 0.25	74.05 ± 1.57	84.08 ± 1.69	6.720 ± 2.296

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.3 x10^{-16}; m/e39 = 4.2 x10^{-17}; m/e38 = 1.5 x10^{-17}; m/e37 = 3.3 x10^{-17}; m/e36 = 2.0 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-02-2003)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)
[5] J-factor = 0.003594 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR412 Biotite (4.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^1$	$^{38}Ar/^{39}Ar^1$ x10^{-3}	$^{37}Ar/^{39}Ar^1$ x10^{-2}	$^{36}Ar/^{39}Ar^1$ x10^{-3}	$^{39}Ar_K{}^2$ (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^4$ ± 1σ	Age^5 ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^6$ ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar^6$ ± 1 σ x10^{-5}
1	500	13	110.0	136.3	11.60	340.0	4.086	1.429	8.624	9.490 ± 1.163	60.55 ± 7.30	9.094 ± 0.042	309.2 ± 3.5
2	700	13	26.79	67.04	4.477	45.43	19.47	8.239	49.76	13.34 ± 0.19	84.54 ± 1.20	37.37 ± 0.10	169.7 ± 2.3
3	770	13	17.22	59.77	1.914	8.553	26.00	17.33	85.09	14.65 ± 0.08	92.68 ± 0.49	58.20 ± 0.14	49.75 ± 1.35
4	840	13	16.17	59.20	1.646	4.422	27.10	26.81	91.68	14.83 ± 0.14	93.75 ± 0.85	61.98 ± 0.46	27.39 ± 1.46
5	900	13	15.89	57.69	2.520	3.158	22.65	34.74	93.88	14.92 ± 0.12	94.31 ± 0.71	63.09 ± 0.38	19.89 ± 1.38
6	960	13	16.63	61.23	8.626	4.721	23.52	42.96	91.40	15.20 ± 0.10	96.06 ± 0.62	60.26 ± 0.29	28.33 ± 1.20
7	1020	13	17.35	67.36	20.53	4.275	33.46	54.66	92.57	16.07 ± 0.09	101.4 ± 0.6	57.73 ± 0.25	24.42 ± 1.01
8	1080	13	18.14	62.62	9.968	3.349	53.51	73.38	94.38	17.13 ± 0.12	107.9 ± 0.8	55.21 ± 0.36	18.37 ± 0.70
9	1150	13	16.55	57.98	2.553	3.025	62.41	95.21	94.38	15.62 ± 0.11	98.62 ± 0.65	60.56 ± 0.37	18.28 ± 0.70
10	500	13	18.73	58.45	38.10	4.879	13.70	99.99	92.19	17.28 ± 0.14	108.8 ± 0.9	53.48 ± 0.23	25.64 ± 2.04

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.1 x10^{-16} m/e39 = 3.8 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 3.3 x10^{-17}; m/e36 = 2.4 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-03-2003)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)

[5] J-factor = 0.003597 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR418 Biotite (4.6mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^1$	$^{38}Ar/^{39}Ar^1$ x10^{-3}	$^{37}Ar/^{39}Ar^1$ x10^{-3}	$^{36}Ar/^{39}Ar^1$ x10^{-3}	$^{39}Ar_K{}^2$ (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^4$ ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^6$ ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar^6$ ± 1 σ x10^{-5}
1	500	13	19.23	46.84	94.53	56.33	2.057	0.6600	13.26	25.59 ± 6.71	16.49 ± 4.31	52.08 ± 0.35	293.3 ± 11.8
2	700	13	16.30	48.05	89.28	25.21	15.74	5.711	54.08	88.17 ± 1.60	56.21 ± 1.01	61.49 ± 0.26	154.9 ± 3.1
3	770	13	12.22	47.43	11.92	5.805	23.08	13.12	85.64	104.7 ± 0.9	66.53 ± 0.55	82.10 ± 0.45	47.63 ± 1.59
4	840	13	11.52	47.20	9.352	2.943	26.82	21.73	92.12	106.1 ± 0.6	67.45 ± 0.38	87.09 ± 0.27	25.61 ± 1.47
5	900	13	11.47	47.24	10.65	2.874	20.00	28.15	92.25	105.8 ± 0.7	67.26 ± 0.45	87.48 ± 0.25	25.12 ± 1.91
6	960	13	11.48	47.16	10.95	2.944	20.26	34.65	92.08	105.8 ± 0.6	67.22 ± 0.39	87.36 ± 0.22	25.70 ± 1.62
7	1020	13	11.58	46.86	17.49	2.946	28.81	43.90	92.16	106.8 ± 0.6	67.84 ± 0.37	86.62 ± 0.24	25.48 ± 1.46
8	1080	13	11.37	46.38	18.72	2.077	45.09	58.37	94.28	107.2 ± 0.5	68.11 ± 0.29	88.24 ± 0.29	18.29 ± 0.86
9	1150	13	11.16	46.06	4.417	1.458	86.01	85.97	95.82	107.0 ± 0.5	67.99 ± 0.31	89.85 ± 0.39	13.09 ± 0.45
10	500	13	11.31	46.97	7.035	2.171	43.72	99.99	94.00	106.3 ± 0.5	67.55 ± 0.28	88.72 ± 0.24	19.25 ± 0.99

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.4 x10^{-17}; m/e39 = 2.2 x10^{-17}; m/e38 = 1.1 x10^{-17}; m/e37 = 2.1 x10^{-17}; m/e36 = 1.2 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-02-2003)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)
[5] J-factor = 0.003589 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR420A Biotite (5.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	500	13	60.62	164.5	40.22	238.1	6.880	1.966	%- 16.03	%-97.42 ± 18.182	0 ± 0	16.50 ± 0.33	392.8 ± 10.9
2	700	13	15.48	86.37	24.89	24.56	29.60	10.42	52.92	82.08 ± 0.95	51.96 ± 0.59	64.74 ± 0.14	158.6 ± 2.0
3	770	13	11.45	92.27	2.283	3.954	46.14	23.61	89.38	102.6 ± 0.4	64.69 ± 0.24	87.55 ± 0.16	34.56 ± 0.97
4	840	13	10.96	92.14	1.253	2.017	41.99	35.61	94.09	103.4 ± 0.4	65.19 ± 0.24	91.48 ± 0.20	18.42 ± 0.93
5	900	13	11.22	90.07	2.675	2.911	26.48	43.17	91.78	103.3 ± 0.5	65.13 ± 0.29	89.42 ± 0.20	25.96 ± 1.20
6	960	13	11.18	88.56	2.540	2.448	27.42	51.01	92.98	104.2 ± 0.5	65.73 ± 0.32	89.73 ± 0.19	21.90 ± 1.40
7	1020	13	11.62	92.87	4.462	3.027	26.16	58.48	91.78	107.0 ± 0.5	67.42 ± 0.33	86.31 ± 0.17	26.02 ± 1.41
8	1080	13	11.32	93.53	5.505	2.224	39.44	69.75	93.76	106.3 ± 0.4	67.04 ± 0.23	88.60 ± 0.17	19.57 ± 0.88
9	1150	13	11.08	93.69	4.654	1.957	69.67	89.66	94.41	104.7 ± 0.4	66.03 ± 0.22	90.53 ± 0.21	17.60 ± 0.75
10	1350	13	10.62	82.32	14.80	1.857	36.19	99.99	94.42	100.5 ± 0.4	63.44 ± 0.27	94.42 ± 0.18	17.15 ± 1.22

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.0×10^{-16}; m/e39 = 2.6×10^{-17}; m/e38 = 7.8×10^{-18}; m/e37 = 1.8×10^{-17}; m/e36 = 1.3×10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 302.0±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-21-2004; analyzed: 05-26-2004)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0328; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00028$^{39}Ar/^{37}Ar_{Ca}$ = 0.00073)

[5] J-factor = 0.003563 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR423 Biotite (5.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	13	79.55	135.5	268.6	251.4	5.869	1.109	6.578	5.240 ± 1.940	33.32 ± 12.22	12.57 ± 0.21	316.1 ± 8.0
2	700	13	20.63	82.07	71.59	36.06	31.86	7.126	48.17	9.944 ± 0.106	62.72 ± 0.66	48.55 ± 0.11	175.0 ± 1.6
3	770	13	12.37	79.62	8.243	4.598	63.89	19.2	88.69	10.98 ± 0.04	69.11 ± 0.23	81.06 ± 0.19	37.25 ± 0.66
4	840	13	11.57	79.57	4.998	1.884	63.6	31.21	94.84	10.99 ± 0.03	69.16 ± 0.20	86.64 ± 0.17	16.32 ± 0.68
5	900	13	11.59	78.98	7.309	1.865	36.29	38.06	94.85	11.01 ± 0.04	69.32 ± 0.22	86.49 ± 0.14	16.12 ± 0.89
6	960	13	11.64	79.27	8.255	1.928	30.11	43.75	94.68	11.03 ± 0.04	69.46 ± 0.23	86.19 ± 0.14	16.59 ± 0.95
7	1020	13	11.82	78.8	12.24	1.957	46.93	52.62	94.75	11.21 ± 0.03	70.54 ± 0.18	84.84 ± 0.15	16.57 ± 0.62
8	1080	13	11.67	78.16	8.994	1.774	71.3	66.09	95.17	11.12 ± 0.03	69.97 ± 0.19	85.91 ± 0.18	15.22 ± 0.58
9	1150	13	11.63	78.32	5.476	1.866	121.3	89	94.92	11.05 ± 0.03	69.53 ± 0.18	86.23 ± 0.18	16.07 ± 0.49
10	1350	13	12.11	78.72	25.84	2.23	58.21	99.99	94.23	11.42 ± 0.03	71.83 ± 0.21	82.82 ± 0.18	18.41 ± 0.61

[1] Corrected for backgrounds (mean values in mol: m/e40 = 3.6×10^{-16}; m/e39 = 1.7×10^{-17}; m/e38 = 5.2×10^{-18}; m/e37 = 1.6×10^{-18}; m/e36 = 9.9×10^{-18}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 302.0±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-21-2004; analyzed: 05-26-2004)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0328; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00028; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00073)
[5] J-factor = 0.003557 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR425A Biotite (5.5mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$	$^{38}Ar/^{39}Ar^{1}$ x10^{-3}	$^{37}Ar/^{39}Ar^{1}$ x10^{-3}	$^{36}Ar/^{39}Ar^{1}$ x10^{-3}	$^{39}Ar_K{}^{2}$ (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^{4}$ ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar^{6}$ ± 1 σ x10^{-5}
1	500	13	133.0	168.1	79.78	431.5	2.072	0.5377	4.123	54.89 ± 21.47	35.35 ± 13.69	7.519 ± 0.069	324.4 ± 5.4
2	700	13	16.25	52.08	54.39	25.12	21.20	6.040	54.10	87.96 ± 1.22	56.31 ± 0.77	61.67 ± 0.15	154.8 ± 2.4
3	770	13	11.80	51.64	6.116	4.611	41.64	16.85	88.13	104.0 ± 0.6	66.41 ± 0.35	85.01 ± 0.23	39.19 ± 1.31
4	840	13	10.95	51.99	2.545	1.644	62.62	33.10	95.22	104.3 ± 0.4	66.58 ± 0.24	91.61 ± 0.26	15.05 ± 0.73
5	900	13	10.93	51.64	2.987	1.363	34.97	42.17	95.95	104.9 ± 0.9	66.97 ± 0.55	91.80 ± 0.67	12.50 ± 1.15
6	960	13	11.01	52.00	5.850	1.691	23.95	48.38	95.09	104.8 ± 0.7	66.88 ± 0.47	91.11 ± 0.33	15.39 ± 1.94
7	1020	13	11.22	52.77	11.43	1.647	24.25	54.68	95.30	107.0 ± 0.6	68.29 ± 0.39	89.39 ± 0.30	14.70 ± 1.51
8	1080	13	11.10	52.40	7.110	1.239	39.59	64.95	96.35	107.0 ± 0.6	68.28 ± 0.38	90.37 ± 0.40	11.18 ± 1.10
9	1150	13	10.89	51.64	5.536	1.173	70.18	83.16	96.48	105.1 ± 0.5	67.11 ± 0.31	92.09 ± 0.38	10.79 ± 0.65
10	500	13	10.95	51.13	26.47	1.364	64.88	99.99	95.99	105.1 ± 0.4	67.09 ± 0.25	91.64 ± 0.27	12.44 ± 0.72

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.3 x10^{-16}; m/e39 = 4.4 x10^{-17}; m/e38 = 1.9 x10^{-17}; m/e37 = 3.2 x10^{-17}; m/e36 = 2.3 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-03-2003)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)
[5] J-factor = 0.003605 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR426 Biotite (5.4mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	13	52.00	146.6	325.4	211.5	9.947	5.556	-	-	0 ± 0	19.24 ± 0.46	406.8 ± 13.0
2	700	13	11.90	30.52	75.15	19.26	29.95	22.29	51.84	61.78 ± 0.81	39.20 ± 0.51	84.30 ± 0.19	162.2 ± 2.2
3	770	13	11.11	27.33	23.44	4.485	20.18	33.56	87.53	97.50 ± 0.61	61.47 ± 0.38	90.31 ± 0.22	40.44 ± 1.68
4	840	13	10.97	26.22	22.48	3.477	15.99	42.49	90.01	99.13 ± 0.86	62.49 ± 0.53	91.42 ± 0.33	31.73 ± 2.36
5	900	13	11.82	27.80	30.68	4.960	16.17	51.52	87.04	103.2 ± 0.9	65.01 ± 0.54	84.85 ± 0.26	42.02 ± 2.31
6	960	13	11.92	26.91	27.02	4.839	18.98	62.13	87.49	104.6 ± 0.7	65.87 ± 0.42	84.12 ± 0.17	40.64 ± 1.83
7	1020	13	12.09	27.32	43.10	4.776	16.23	71.19	87.79	106.5 ± 0.9	67.03 ± 0.54	82.95 ± 0.24	39.52 ± 2.25
8	1080	13	11.25	26.74	54.20	3.041	20.42	82.59	91.49	103.2 ± 0.6	65.00 ± 0.37	89.17 ± 0.24	26.98 ± 1.58
9	1150	13	10.45	26.34	191.4	2.845	18.74	93.06	91.48	95.97 ± 0.74	60.52 ± 0.46	95.95 ± 0.23	26.79 ± 2.25
10	1350	13	10.54	23.52	201.3	4.194	12.42	99.99	87.64	92.86 ± 0.98	58.59 ± 0.61	95.16 ± 0.31	39.38 ± 2.96

[1] Corrected for backgrounds (mean values in mol: m/e40 = 4.4x10^{-16}; m/e39 = 2.0x10^{-17}; m/e38 = 6.6x10^{-18}; m/e37 = 1.9x10^{-17}; m/e36 = 1.2x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 302.0±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-21-2004; analyzed: 05-26-2004)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0328; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00028; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00073)
[5] J-factor = 0.003555 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR427 Biotite (5.5mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	500	13	56.28	161.5	279.8	226.9	6.341	1.530	-	-	0 ± 0	17.77 ± 0.39	403.2 ± 12.2
2	700	13	14.70	37.45	168.5	22.59	35.88	10.19	54.34	80.01 ± 0.78	50.57 ± 0.49	68.19 ± 0.16	153.8 ± 1.6
3	770	13	11.47	34.74	11.57	3.698	58.09	24.20	90.07	103.4 ± 0.4	65.12 ± 0.27	87.44 ± 0.27	32.31 ± 0.75
4	840	13	10.98	34.70	6.882	1.503	62.79	39.35	95.53	105.0 ± 0.3	66.09 ± 0.17	91.36 ± 0.17	13.71 ± 0.58
5	900	13	11.11	34.22	9.683	1.528	38.52	48.65	95.43	106.2 ± 0.5	66.85 ± 0.29	90.29 ± 0.30	13.77 ± 0.88
6	960	13	11.17	33.21	11.58	1.784	31.24	56.19	94.74	106.1 ± 0.4	66.77 ± 0.28	89.79 ± 0.14	15.99 ± 1.26
7	1020	13	11.53	33.96	14.41	1.903	31.41	63.77	94.60	109.3 ± 0.6	68.75 ± 0.40	87.00 ± 0.41	16.53 ± 1.00
8	1080	13	11.27	33.89	12.36	1.698	42.24	73.96	95.08	107.3 ± 0.4	67.53 ± 0.23	89.01 ± 0.21	15.08 ± 0.82
9	1150	13	11.13	34.65	15.34	1.609	75.13	92.09	95.34	106.2 ± 0.3	66.84 ± 0.21	90.10 ± 0.23	14.46 ± 0.61
10	1350	13	11.22	34.09	119.6	1.639	32.79	99.99	95.23	107.1 ± 0.4	67.37 ± 0.26	89.42 ± 0.20	14.36 ± 1.02

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.3x10^{-16}; m/e39 = 2.8x10^{-17}; m/e38 = 1.1x10^{-17}; m/e37 = 1.9x10^{-17}; m/e36 = 1.4x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 302.0±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-21-2004; analyzed: 05-26-2004)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0328; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00028; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00073)
[5] J-factor = 0.003553 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

MRD132 Biotite (4.9mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{-1}	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-2}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-4}
1	500	13	133.0	168.1	79.78	431.5	2.072	0.5377	4.123	54.89 ± 21.47	35.35 ± 13.69	7.519 ± 0.069	324.4 ± 5.4
2	700	13	16.25	52.08	54.39	25.12	21.20	6.040	54.10	87.96 ± 1.22	56.31 ± 0.77	61.67 ± 0.15	154.8 ± 2.4
3	770	13	11.80	51.64	6.116	4.611	41.64	16.85	88.13	104.0 ± 0.6	66.41 ± 0.35	85.01 ± 0.23	39.19 ± 1.31
4	840	13	10.95	51.99	2.545	1.644	62.62	33.10	95.22	104.3 ± 0.4	66.58 ± 0.24	91.61 ± 0.26	15.05 ± 0.73
5	900	13	10.93	51.64	2.987	1.363	34.97	42.17	95.95	104.9 ± 0.9	66.97 ± 0.55	91.80 ± 0.67	12.50 ± 1.15
6	960	13	11.01	52.00	5.850	1.691	23.95	48.38	95.09	104.8 ± 0.7	66.88 ± 0.47	91.11 ± 0.33	15.39 ± 1.94
7	1020	13	11.22	52.77	11.43	1.647	24.25	54.68	95.30	107.0 ± 0.6	68.29 ± 0.39	89.39 ± 0.30	14.70 ± 1.51
8	1080	13	11.10	52.40	7.110	1.239	39.59	64.95	96.35	107.0 ± 0.6	68.28 ± 0.38	90.37 ± 0.40	11.18 ± 1.10
9	1150	13	10.89	51.64	5.536	1.173	70.18	83.16	96.48	105.1 ± 0.5	67.11 ± 0.31	92.09 ± 0.38	10.79 ± 0.65
10	500	13	10.95	51.13	26.47	1.364	64.88	99.99	95.99	105.1 ± 0.4	67.09 ± 0.25	91.64 ± 0.27	12.44 ± 0.72

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.8 x10^{-17}; m/e39 = 4.0 x10^{-17}; m/e38 = 1. x10^{-17}; m/e37 = 2.8 x10^{-17}; m/e36 = 2.8 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-13-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)
[5] J-factor = 0.006895 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR17 K-feldspar (17.2mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-4}
1	400	15	473.5	385.4	137.8	1562	1.952	0.1956	2.499	118.4 ± 103.4	74.25 ± 63.53	0.211 ± 0.003	33.00 ± 0.73
2	400	22	214.8	184.4	122.6	709.8	0.5732	0.2531	2.329	50.06 ± 69.94	31.78 ± 44.01	0.466 ± 0.009	33.05 ± 1.09
3	450	15	108.8	94.19	98.26	345.3	1.382	0.3916	6.155	67.00 ± 20.42	42.41 ± 12.77	0.920 ± 0.010	31.76 ± 0.62
4	450	22	40.01	49.12	86.11	133.3	1.414	0.5333	1.472	5.900 ± 11.913	3.775 ± 7.614	2.502 ± 0.022	33.34 ± 1.01
5	500	15	31.94	35.81	65.27	94.84	3.265	0.8605	12.14	38.82 ± 6.21	24.69 ± 3.93	3.134 ± 0.021	29.72 ± 0.65
6	500	22	10.68	21.85	41.77	28.03	3.776	1.239	22.12	23.70 ± 3.84	15.11 ± 2.44	9.389 ± 0.079	26.31 ± 1.21
7	550	15	13.64	20.72	45.57	33.98	8.772	2.118	26.14	35.69 ± 2.40	22.71 ± 1.52	7.349 ± 0.044	24.97 ± 0.58
8	550	22	5.427	15.54	43.93	8.240	9.955	3.116	54.44	29.61 ± 1.12	18.86 ± 0.71	18.54 ± 0.09	15.26 ± 0.69
9	600	15	8.391	16.41	76.70	16.66	18.06	4.926	40.94	34.38 ± 1.20	21.89 ± 0.76	11.97 ± 0.03	19.92 ± 0.48
10	600	22	4.395	13.06	204.7	4.021	18.51	6.782	72.40	31.87 ± 0.66	20.29 ± 0.41	22.93 ± 0.12	9.113 ± 0.478
11	650	15	13.86	19.33	330.1	34.98	29.65	9.753	25.31	35.10 ± 1.07	22.34 ± 0.67	7.232 ± 0.021	25.25 ± 0.25
12	650	22	11.07	17.58	270.4	26.56	25.38	12.30	28.92	32.03 ± 3.39	20.40 ± 2.15	9.061 ± 0.211	24.02 ± 0.88
13	700	15	10.52	17.20	217.4	24.57	29.12	15.22	30.79	32.42 ± 1.62	20.64 ± 1.03	9.534 ± 0.097	23.38 ± 0.46
14	700	22	6.891	14.75	137.9	11.92	24.35	17.66	48.47	33.43 ± 1.07	21.28 ± 0.68	14.58 ± 0.15	17.34 ± 0.43
15	750	15	6.014	13.78	69.31	7.664	29.61	20.62	61.81	37.19 ± 1.40	23.67 ± 0.88	16.72 ± 0.31	12.79 ± 0.54
16	750	22	4.006	13.01	15.22	1.798	25.25	23.16	85.81	34.42 ± 1.08	21.91 ± 0.68	25.18 ± 0.63	4.518 ± 0.370
17	800	15	4.389	12.98	6.946	2.735	27.62	25.92	80.74	35.47 ± 0.70	22.58 ± 0.44	22.96 ± 0.31	6.276 ± 0.307
18	800	22	3.994	12.44	5.575	1.342	23.33	28.26	89.10	35.63 ± 0.66	22.68 ± 0.42	25.26 ± 0.34	3.388 ± 0.341
19	825	19	4.065	13.15	6.323	1.639	20.20	30.29	87.12	35.47 ± 0.50	22.57 ± 0.31	24.81 ± 0.12	4.064 ± 0.382

[1] Corrected for backgrounds (mean values in mol: m/e40 = 7.5 x10^{-17}; m/e39 = 2.3 x10^{-17}; m/e38 = 3.9 x10^{-18}; m/e37 = 2.5 x10^{-17}; m/e36 = 1.4 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-16-2003)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)
[5] J-factor = 0.003550 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR17 K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^1$	$^{38}Ar/^{39}Ar^1$ x10^{-3}	$^{37}Ar/^{39}Ar^1$ x10^{-3}	$^{36}Ar/^{39}Ar^1$ x10^{-3}	$^{39}Ar_K{}^2$ (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^4$ ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^6$ ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar^6$ ± 1 σ x10^{-4}
20	850	15	4.221	13.13	7.193	2.005	17.33	32.02	85.02	35.94 ± 1.56	22.87 ± 0.99	23.89 ± 0.83	4.786 ± 0.476
21	875	15	4.157	13.13	6.003	1.866	13.59	33.39	85.74	35.72 ± 0.86	22.73 ± 0.54	24.26 ± 0.34	4.523 ± 0.528
22	900	19	4.450	12.75	3.510	2.251	15.43	34.93	84.14	37.50 ± 1.65	23.86 ± 1.04	22.65 ± 0.76	5.097 ± 0.596
23	925	15	4.506	12.49	4.491	2.287	12.59	36.20	84.08	37.96 ± 1.41	24.15 ± 0.89	22.36 ± 0.48	5.112 ± 0.785
24	950	15	4.513	12.83	9.772	2.415	13.49	37.55	83.28	37.65 ± 1.07	23.96 ± 0.68	22.33 ± 0.41	5.389 ± 0.530
25	975	19	4.637	12.83	11.02	2.677	19.86	39.54	82.12	38.12 ± 0.93	24.25 ± 0.59	21.73 ± 0.36	5.810 ± 0.401
26	1000	15	4.728	13.15	11.64	2.834	15.51	41.09	81.45	38.57 ± 1.45	24.53 ± 0.92	21.31 ± 0.60	6.033 ± 0.474
27	1025	15	4.755	13.48	19.40	3.223	14.93	42.59	79.15	37.70 ± 1.06	23.98 ± 0.67	21.18 ± 0.31	6.817 ± 0.583
28	1050	19	4.870	13.35	17.93	3.871	21.80	44.77	75.75	36.93 ± 1.08	23.50 ± 0.68	20.68 ± 0.39	7.998 ± 0.428
29	1075	15	4.996	13.74	13.01	4.023	15.99	46.38	75.43	37.74 ± 0.77	24.01 ± 0.49	20.15 ± 0.21	8.102 ± 0.403
30	1100	19	5.059	13.38	11.00	4.848	20.64	48.45	70.94	35.93 ± 1.09	22.87 ± 0.69	19.90 ± 0.31	9.644 ± 0.530
31	1100	25	5.083	13.59	5.951	4.535	20.08	50.46	72.88	37.09 ± 1.16	23.60 ± 0.73	19.81 ± 0.40	8.980 ± 0.402
32	1100	45	5.266	13.58	5.801	5.145	24.54	52.92	70.42	37.11 ± 1.28	23.61 ± 0.81	19.12 ± 0.42	9.832 ± 0.424
33	1100	90	5.503	13.76	6.213	5.985	31.68	56.09	67.20	37.00 ± 0.86	23.54 ± 0.54	18.29 ± 0.22	10.94 ± 0.36
34	1100	120	5.870	13.45	4.910	6.578	23.78	58.48	66.25	38.92 ± 1.56	24.75 ± 0.98	17.14 ± 0.40	11.27 ± 0.50
35	1100	240	6.498	13.93	5.481	7.771	27.72	61.25	64.09	41.68 ± 0.80	26.50 ± 0.50	15.47 ± 0.12	12.02 ± 0.34
36	1100	480	7.352	14.69	8.664	11.24	53.29	66.59	54.35	39.97 ± 0.51	25.42 ± 0.32	13.67 ± 0.03	15.36 ± 0.23
37	1200	19	7.870	16.34	72.03	14.21	11.07	67.70	46.19	36.40 ± 1.42	23.16 ± 0.90	12.76 ± 0.12	18.12 ± 0.55
38	1233	15	10.16	15.22	36.65	9.635	8.477	68.55	71.58	72.85 ± 1.86	46.06 ± 1.16	9.872 ± 0.117	9.504 ± 0.488
39	1266	15	7.534	15.49	29.66	12.06	9.402	69.50	52.17	39.37 ± 3.45	25.04 ± 2.18	13.33 ± 0.54	16.08 ± 0.99
40	1300	19	7.462	14.88	27.00	11.35	25.71	72.07	54.59	40.76 ± 1.29	25.92 ± 0.81	13.46 ± 0.13	15.27 ± 0.51
41	1350	15	7.275	14.80	20.67	10.74	76.15	79.71	55.92	40.69 ± 1.67	25.88 ± 1.06	13.81 ± 0.28	14.82 ± 0.49
42	400	15	7.939	14.32	10.24	10.26	202.5	99.99	61.39	48.74 ± 1.49	30.95 ± 0.94	12.65 ± 0.22	12.97 ± 0.32

OR316 K-feldspar (23.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	400	15	547.5	546.2	-	1445	2.509	0.108	22.00	120.5 ± 6.33	651.5 ± 28.7	0.183 ± 0.00	263.9 ± 3.51
2	400	22	281.0	207.7	-	879.1	0.485	0.129	7.515	21.14 ± 7.13	132.7 ± 43.1	0.356 ± 0.01	312.9 ± 8.34
3	450	15	180.5	199.3	-	330.9	2.060	0.218	45.79	82.68 ± 1.68	471.2 ± 8.43	0.554 ± 0.00	183.4 ± 2.72
4	450	22	51.91	53.26	-	135.2	1.495	0.283	22.93	11.93 ± 1.13	76.09 ± 7.08	1.927 ± 0.01	260.6 ± 7.23
5	500	15	75.03	92.10	9.807	131.4	5.338	0.513	48.19	36.18 ± 0.57	221.4 ± 3.30	1.333 ± 0.01	175.2 ± 2.27
6	500	22	15.45	22.10	0.534	30.31	4.831	0.721	41.77	6.469 ± 0.24	41.65 ± 1.53	6.483 ± 0.03	196.5 ± 5.17
7	550	15	26.77	36.49	8.492	44.32	12.93	1.279	50.96	13.65 ± 0.20	86.78 ± 1.26	3.739 ± 0.01	165.7 ± 2.47
8	550	22	6.883	15.04	4.440	6.294	11.26	1.765	72.45	4.998 ± 0.12	32.26 ± 0.74	14.58 ± 0.04	91.76 ± 5.66
9	600	15	17.18	25.56	15.51	28.50	23.82	2.792	50.82	8.736 ± 0.10	56.02 ± 0.62	5.829 ± 0.01	166.1 ± 1.81
10	600	22	6.557	13.35	11.11	3.533	19.79	3.645	83.59	5.489 ± 0.05	35.40 ± 0.31	15.31 ± 0.03	54.04 ± 2.37
11	650	15	14.01	20.63	12.91	21.28	38.50	5.306	54.92	7.696 ± 0.09	49.44 ± 0.56	7.152 ± 0.01	152.1 ± 2.05
12	650	22	7.408	13.20	11.48	2.799	33.96	6.771	88.45	6.557 ± 0.04	42.21 ± 0.23	13.54 ± 0.02	37.87 ± 1.51
13	700	15	10.83	15.96	12.71	10.48	54.84	9.136	71.16	7.710 ± 0.04	49.53 ± 0.24	9.253 ± 0.02	96.98 ± 0.95
14	700	22	7.893	12.45	9.418	0.915	44.33	11.05	96.22	7.598 ± 0.03	48.82 ± 0.20	12.71 ± 0.02	11.60 ± 1.18
15	750	15	9.722	14.11	10.28	5.202	58.59	13.58	83.91	8.161 ± 0.03	52.38 ± 0.21	10.31 ± 0.02	53.62 ± 0.99
16	750	22	8.373	12.50	7.823	0.735	47.32	15.62	97.07	8.132 ± 0.03	52.20 ± 0.16	11.98 ± 0.02	8.782 ± 0.83
17	800	15	9.956	14.01	8.283	5.060	58.59	18.14	84.71	8.436 ± 0.06	54.12 ± 0.37	10.07 ± 0.02	50.93 ± 1.91
18	800	22	8.611	12.74	7.255	0.806	50.02	20.30	96.91	8.348 ± 0.03	53.57 ± 0.17	11.65 ± 0.02	9.367 ± 0.88
19	825	18	9.087	13.06	5.418	2.133	43.43	22.17	92.75	8.432 ± 0.03	54.09 ± 0.22	11.04 ± 0.02	23.53 ± 1.05

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 1.4x10^{-16}; m/e39 = 5.9x10^{-17}; m/e38 = 2.5x10^{-17}; m/e37 = 4.2x10^{-17}; m/e 36 = 4.0x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 12-04-2001; Analyzed: 05-06-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.25; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00025; $^{39}Ar/^{37}Ar_{Ca}$ = 0.0007)

[5] Assumes trapped argon is atmospheric. J-factor = 0.00361 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR316 K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
20	850	15	9.648	13.47	6.396	3.794	42.28	24.00	88.09	8.502 ± 0.03	54.54 ± 0.22	10.39 ± 0.02	39.41 ± 1.05
21	875	15	9.364	13.01	9.037	2.883	47.66	26.05	90.60	8.487 ± 0.03	54.45 ± 0.21	10.71 ± 0.02	30.85 ± 1.01
22	900	18	9.057	12.72	5.401	1.688	57.97	28.55	94.19	8.534 ± 0.03	54.74 ± 0.18	11.07 ± 0.02	18.67 ± 0.83
23	925	15	9.044	12.88	9.093	1.568	50.42	30.73	94.57	8.556 ± 0.03	54.88 ± 0.20	11.09 ± 0.02	17.36 ± 0.96
24	950	15	9.162	13.13	7.205	1.920	52.52	32.99	93.51	8.570 ± 0.03	54.97 ± 0.19	10.94 ± 0.02	20.99 ± 0.86
25	975	18	8.935	12.87	7.250	1.125	61.20	35.63	95.97	8.578 ± 0.03	55.02 ± 0.17	11.22 ± 0.02	12.60 ± 0.74
26	1000	15	8.903	12.93	7.937	1.030	51.17	37.84	96.27	8.574 ± 0.03	55.00 ± 0.16	11.26 ± 0.02	11.58 ± 0.78
27	1025	15	8.996	13.10	7.244	1.221	51.93	40.08	95.68	8.611 ± 0.03	55.23 ± 0.16	11.15 ± 0.02	13.59 ± 0.76
28	1050	18	9.151	13.35	7.516	1.588	60.40	42.69	94.58	8.658 ± 0.03	55.52 ± 0.18	10.96 ± 0.02	17.38 ± 0.79
29	1075	15	9.361	14.05	9.008	2.107	52.36	44.94	93.05	8.714 ± 0.03	55.88 ± 0.19	10.71 ± 0.02	22.55 ± 0.94
30	1100	18	9.656	14.24	9.477	2.724	63.02	47.66	91.38	8.826 ± 0.03	56.59 ± 0.19	10.38 ± 0.02	28.26 ± 0.78
31	1100	25	10.01	14.83	10.21	3.479	57.27	50.13	89.46	8.959 ± 0.03	57.42 ± 0.21	10.01 ± 0.02	34.81 ± 0.91
32	1100	45	10.66	15.50	13.12	5.145	67.79	53.06	85.49	9.118 ± 0.04	58.43 ± 0.24	9.401 ± 0.02	48.34 ± 0.90
33	1100	90	11.33	16.27	15.74	6.976	85.64	56.75	81.59	9.250 ± 0.04	59.26 ± 0.25	8.842 ± 0.02	61.65 ± 0.73
34	1100	120	11.85	16.81	16.91	8.343	78.04	60.12	78.99	9.366 ± 0.05	59.99 ± 0.28	8.453 ± 0.02	70.49 ± 0.94
35	1100	240	12.09	16.83	14.78	8.640	95.83	64.25	78.66	9.513 ± 0.05	60.91 ± 0.29	8.289 ± 0.02	71.59 ± 1.01
36	1200	17	14.17	22.67	50.41	14.86	64.64	67.04	68.85	9.757 ± 0.05	62.45 ± 0.34	7.070 ± 0.02	105.0 ± 0.91
37	1233	15	12.43	19.65	19.57	9.644	190.2	75.24	76.86	9.558 ± 0.06	61.20 ± 0.37	8.060 ± 0.03	77.70 ± 1.03
38	1266	15	10.98	16.52	4.323	4.513	78.97	78.65	87.61	9.619 ± 0.04	61.58 ± 0.23	9.130 ± 0.02	41.20 ± 0.71
39	1300	20	10.89	15.17	2.951	4.130	317.8	92.36	88.55	9.647 ± 0.03	61.76 ± 0.20	9.202 ± 0.02	38.00 ± 0.54
40	1350	15	12.55	16.76	12.51	9.135	65.15	95.17	78.29	9.831 ± 0.05	62.91 ± 0.32	7.981 ± 0.02	72.88 ± 1.08
41	1500	15	12.43	16.58	8.639	8.611	80.94	98.66	79.32	9.865 ± 0.05	63.13 ± 0.31	8.059 ± 0.02	69.38 ± 1.15
42	1650	17	12.21	15.87	5.234	8.086	30.97	99.99	80.19	9.795 ± 0.06	62.69 ± 0.38	8.207 ± 0.02	66.35 ± 1.55
43	1650	18	721.0	440.3	-	2333	0.057	99.99	4.360	31.54 ± 68.2	194.5 ± 399	0.139 ± 0.01	323.6 ± 31.4

OR340A K-feldspar (17.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$ x10[1]	$^{38}Ar/^{39}Ar^{1}$ x10[-3]	$^{37}Ar/^{39}Ar^{1}$ x10[-3]	$^{36}Ar/^{39}Ar^{1}$ x10[-3]	$^{39}Ar_K{}^{2}$ (mol) x10[-16]	Σ $^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^{4}$ ± 1σ x10[1]	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1 σ x10[-3]	$^{36}Ar/^{40}Ar^{6}$ ± 1 σ x10[-5]
1	400	15	505.7	808.5	100.2	2404	4.823	0.1480	85.94	434.7 ± 14.5	5055 ± 57	0.198 ± 0.006	47.55 ± 2.03
2	400	22	25.24	134.5	190.9	405.5	1.417	0.1915	52.27	13.25 ± 1.28	697.3 ± 56.0	3.963 ± 0.138	160.7 ± 13.7
3	450	15	151.1	143.5	39.70	182.2	3.361	0.2946	96.40	145.7 ± 4.4	3288 ± 45	0.662 ± 0.019	12.06 ± 0.96
4	450	22	28.41	57.14	136.0	110.9	3.179	0.3921	88.29	25.13 ± 0.80	1153 ± 27	3.521 ± 0.091	39.05 ± 3.91
5	500	15	70.56	80.42	56.36	68.91	7.527	0.6231	97.08	68.52 ± 0.89	2228 ± 17	1.417 ± 0.018	9.764 ± 0.642
6	500	22	4.805	25.10	40.47	38.53	7.093	0.8407	75.87	3.664 ± 0.134	221.1 ± 7.6	20.83 ± 0.29	80.22 ± 8.23
7	550	15	23.04	31.67	50.77	25.23	13.91	1.267	96.70	22.29 ± 0.28	1054 ± 10	4.341 ± 0.050	10.95 ± 1.21
8	550	22	2.426	17.97	94.61	16.98	13.33	1.677	78.80	1.922 ± 0.073	119.4 ± 4.4	41.27 ± 0.41	69.99 ± 9.67
9	600	15	17.38	25.53	130.2	16.68	21.79	2.345	97.11	16.88 ± 0.14	849.1 ± 5.5	5.755 ± 0.042	9.581 ± 0.920
10	600	22	2.113	15.74	120.1	10.74	18.89	2.925	84.51	1.793 ± 0.045	111.6 ± 2.7	47.39 ± 0.44	50.77 ± 6.49
11	650	15	23.52	25.13	126.1	13.31	27.04	3.754	98.29	23.12 ± 0.27	1083 ± 10	4.253 ± 0.048	5.648 ± 0.607
12	650	22	1.436	16.06	106.7	8.543	24.38	4.503	81.85	1.181 ± 0.043	74.30 ± 2.68	69.79 ± 0.55	59.45 ± 9.93
13	700	15	2.493	16.71	93.77	6.965	31.46	5.468	91.44	2.285 ± 0.037	141.1 ± 2.2	40.16 ± 0.33	27.89 ± 4.20
14	700	22	1.487	15.13	60.13	9.375	27.80	6.321	80.85	1.207 ± 0.038	75.91 ± 2.35	67.39 ± 0.46	63.08 ± 8.41
15	750	15	1.970	16.14	52.87	6.337	35.15	7.399	90.12	1.780 ± 0.029	110.8 ± 1.7	50.85 ± 0.32	32.16 ± 4.50
16	750	22	1.183	15.59	45.04	5.314	31.39	8.362	86.08	1.023 ± 0.031	64.52 ± 1.89	84.77 ± 0.62	44.96 ± 8.40
17	800	15	1.240	15.27	38.36	4.504	40.23	9.597	88.71	1.104 ± 0.023	69.52 ± 1.42	80.87 ± 0.53	36.36 ± 5.89
18	800	22	1.074	14.42	39.12	4.409	39.47	10.81	87.23	0.941 ± 0.027	59.42 ± 1.66	93.39 ± 0.57	41.09 ± 8.20
19	825	19	1.083	15.17	46.29	5.777	35.12	11.89	83.58	0.909 ± 0.024	57.45 ± 1.48	92.64 ± 0.47	53.43 ± 7.27

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.1 x10^{-16}; m/e39 = 3.2 x10^{-17}; m/e38 = 1.2 x10^{-17}; m/e37 = 2.7 x10^{-17}; m/e36 = 1.8 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-18-2003)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)
[5] J-factor = 0.003560 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR340A K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$ x10^{1}	$^{38}Ar/^{39}Ar^{1}$ x10^{-3}	$^{37}Ar/^{39}Ar^{1}$ x10^{-3}	$^{36}Ar/^{39}Ar^{1}$ x10^{-3}	$^{39}Ar_K{}^{2}$ (mol) x10^{-16}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^{4}$ ± 1σ x10^{1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar^{6}$ ± 1 σ x10^{-5}
20	850	15	9.648	13.47	6.396	3.794	42.28	24.00	88.09	8.502 ± 0.03	54.54 ± 0.22	10.39 ± 0.02	39.41 ± 1.05
21	875	15	9.364	13.01	9.037	2.883	47.66	26.05	90.60	8.487 ± 0.03	54.45 ± 0.21	10.71 ± 0.02	30.85 ± 1.01
22	900	18	9.057	12.72	5.401	1.688	57.97	28.55	94.19	8.534 ± 0.03	54.74 ± 0.18	11.07 ± 0.02	18.67 ± 0.83
23	925	15	9.044	12.88	9.093	1.568	50.42	30.73	94.57	8.556 ± 0.03	54.88 ± 0.20	11.09 ± 0.02	17.36 ± 0.96
24	950	15	9.162	13.13	7.205	1.920	52.52	32.99	93.51	8.570 ± 0.03	54.97 ± 0.19	10.94 ± 0.02	20.99 ± 0.86
25	975	18	8.935	12.87	7.250	1.125	61.20	35.63	95.97	8.578 ± 0.03	55.02 ± 0.17	11.22 ± 0.02	12.60 ± 0.74
26	1000	15	8.903	12.93	7.937	1.030	51.17	37.84	96.27	8.574 ± 0.03	55.00 ± 0.16	11.26 ± 0.02	11.58 ± 0.78
27	1025	15	8.996	13.10	7.244	1.221	51.93	40.08	95.68	8.611 ± 0.03	55.23 ± 0.16	11.15 ± 0.02	13.59 ± 0.76
28	1050	18	9.151	13.35	7.516	1.588	60.40	42.69	94.58	8.658 ± 0.03	55.52 ± 0.18	10.96 ± 0.02	17.38 ± 0.79
29	1075	15	9.361	14.05	9.008	2.107	52.36	44.94	93.05	8.714 ± 0.03	55.88 ± 0.19	10.71 ± 0.02	22.55 ± 0.94
30	1100	18	9.656	14.24	9.477	2.724	63.02	47.66	91.38	8.826 ± 0.03	56.59 ± 0.19	10.38 ± 0.02	28.26 ± 0.78
31	1100	25	10.01	14.83	10.21	3.479	57.27	50.13	89.46	8.959 ± 0.03	57.42 ± 0.21	10.01 ± 0.02	34.81 ± 0.91
32	1100	45	10.66	15.50	13.12	5.145	67.79	53.06	85.49	9.118 ± 0.04	58.43 ± 0.24	9.401 ± 0.02	48.34 ± 0.90
33	1100	90	11.33	16.27	15.74	6.976	85.64	56.75	81.59	9.250 ± 0.04	59.26 ± 0.25	8.842 ± 0.02	61.65 ± 0.73
34	1100	120	11.85	16.81	16.91	8.343	78.04	60.12	78.99	9.366 ± 0.05	59.99 ± 0.28	8.453 ± 0.02	70.49 ± 0.94
35	1100	240	12.09	16.83	14.78	8.640	95.83	64.25	78.66	9.513 ± 0.05	60.91 ± 0.29	8.289 ± 0.02	71.59 ± 1.01
36	1200	17	14.17	22.67	50.41	14.86	64.64	67.04	68.85	9.757 ± 0.05	62.45 ± 0.34	7.070 ± 0.02	105.0 ± 0.91
37	1233	15	12.43	19.65	19.57	9.644	190.2	75.24	76.86	9.558 ± 0.06	61.20 ± 0.37	8.060 ± 0.03	77.70 ± 1.03
38	1266	15	10.98	16.52	4.323	4.513	78.97	78.65	87.61	9.619 ± 0.04	61.58 ± 0.23	9.130 ± 0.02	41.20 ± 0.71
39	1300	20	10.89	15.17	2.951	4.130	317.8	92.36	88.55	9.647 ± 0.03	61.76 ± 0.20	9.202 ± 0.02	38.00 ± 0.54
40	1350	15	12.55	16.76	12.51	9.135	65.15	95.17	78.29	9.831 ± 0.05	62.91 ± 0.32	7.981 ± 0.02	72.88 ± 1.08

OR344 K-feldspar (17.7mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] $\times10^{-3}$	$^{37}Ar/^{39}Ar$[1] $\times10^{-3}$	$^{36}Ar/^{39}Ar$[1] $\times10^{-3}$	$^{39}Ar_K$[2] (mol) $\times10^{-15}$	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ $\times10^{-3}$	$^{36}Ar/^{40}Ar$[6] ± 1 σ $\times10^{-5}$
1	400	15	721.0	562.2	103.2	2100	0.4530	0.06012	13.91	100.4 ± 25.2	551.4 ± 119.1	1.387 ± 0.036	291.3 ± 10.9
2	400	22	204.4	189.3	-	579.9	0.1295	0.07730	16.05	33.03 ± 18.33	200.7 ± 105.4	4.892 ± 0.301	283.7 ± 28.1
3	450	15	374.6	78.31	-	240.9	0.1649	0.09919	80.77	303.3 ± 22.0	1322 ± 68	2.670 ± 0.146	64.31 ± 8.01
4	450	22	105.4	41.14	-	227.4	0.1334	0.1169	35.80	38.19 ± 18.96	230.1 ± 107.3	9.488 ± 1.156	215.8 ± 51.9
5	500	15	324.1	81.39	53.46	127.9	0.4923	0.1822	88.23	286.3 ± 8.4	1268 ± 27	3.086 ± 0.076	39.47 ± 2.86
6	500	22	50.86	43.94	77.84	101.7	0.5411	0.2540	40.58	20.77 ± 2.43	128.7 ± 14.6	19.68 ± 0.29	200.1 ± 15.7
7	550	15	165.9	46.59	60.73	52.44	1.132	0.4043	90.56	150.3 ± 1.8	773.7 ± 7.4	6.030 ± 0.052	31.62 ± 2.07
8	550	22	26.17	26.13	72.63	41.41	1.242	0.5691	52.85	13.90 ± 0.77	87.19 ± 4.74	38.27 ± 0.31	158.4 ± 9.7
9	600	15	68.45	25.83	91.58	23.54	2.400	0.8876	89.70	61.47 ± 0.74	357.2 ± 3.9	14.62 ± 0.12	34.38 ± 2.46
10	600	22	16.35	18.22	244.1	18.07	2.636	1.237	66.97	11.00 ± 0.44	69.32 ± 2.73	61.26 ± 0.39	110.4 ± 8.9
11	650	15	37.76	21.41	307.4	13.36	4.915	1.890	89.43	33.80 ± 0.35	205.1 ± 2.0	26.50 ± 0.16	35.23 ± 2.37
12	650	22	12.48	15.15	245.0	10.97	5.069	2.562	73.70	9.225 ± 0.239	58.33 ± 1.49	80.33 ± 0.54	87.65 ± 6.11
13	700	15	21.84	16.73	224.4	9.033	7.371	3.541	87.60	19.15 ± 0.22	119.1 ± 1.3	45.85 ± 0.29	41.19 ± 2.62
14	700	22	13.10	16.18	199.6	13.02	6.736	4.435	70.35	9.238 ± 0.185	58.41 ± 1.15	76.50 ± 0.34	99.26 ± 4.58
15	750	15	18.37	17.41	167.5	18.22	8.291	5.535	70.49	12.96 ± 0.19	81.43 ± 1.19	54.54 ± 0.25	99.17 ± 3.26
16	750	22	12.42	15.59	106.2	10.35	7.099	6.477	75.01	9.331 ± 0.180	58.99 ± 1.12	80.76 ± 0.44	83.37 ± 4.59
17	800	15	13.87	15.72	78.96	7.570	8.582	7.616	83.55	11.61 ± 0.14	73.10 ± 0.89	72.25 ± 0.31	54.57 ± 3.23
18	800	22	10.67	14.31	48.95	6.377	8.971	8.807	81.90	8.751 ± 0.123	55.38 ± 0.77	94.06 ± 0.41	59.88 ± 3.65
19	825	19	10.46	14.45	44.91	5.667	9.012	10.00	83.53	8.750 ± 0.142	55.37 ± 0.88	95.95 ± 0.61	54.28 ± 4.09

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.1 $\times10^{-16}$; m/e39 = 1.8 $\times10^{-17}$; m/e38 = 9.2 $\times10^{-18}$; m/e37 = 2.8 $\times10^{-17}$; m/e36 = 1.6 $\times10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-13-2003)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)

[5] J-factor = 0.003562 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR344 K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
20	850	15	10.56	13.67	41.18	4.236	9.457	11.26	87.69	9.274 ± 0.114	58.63 ± 0.71	95.03 ± 0.33	40.17 ± 3.49
21	875	15	10.01	13.05	35.90	3.195	11.97	12.85	90.12	9.035 ± 0.091	57.14 ± 0.57	100.2 ± 0.3	31.95 ± 2.90
22	900	19	9.866	12.98	34.10	2.993	16.64	15.06	90.62	8.950 ± 0.070	56.62 ± 0.44	101.7 ± 0.4	30.36 ± 2.12
23	925	15	9.805	13.13	34.76	3.029	14.30	16.95	90.43	8.878 ± 0.081	56.17 ± 0.50	102.3 ± 0.3	30.92 ± 2.61
24	950	15	9.817	13.23	33.03	3.358	15.59	19.02	89.46	8.792 ± 0.089	55.63 ± 0.55	102.2 ± 0.3	34.25 ± 2.86
25	975	19	10.09	13.62	32.46	3.605	18.92	21.53	89.04	8.990 ± 0.055	56.87 ± 0.34	99.47 ± 0.30	35.79 ± 1.55
26	1000	15	10.55	13.64	32.04	5.106	15.27	23.56	85.31	9.010 ± 0.091	56.99 ± 0.57	95.08 ± 0.30	48.48 ± 2.72
27	1025	15	10.87	13.67	32.99	5.247	16.30	25.72	85.36	9.286 ± 0.103	58.71 ± 0.64	92.30 ± 0.48	48.36 ± 2.69
28	1050	19	11.23	13.70	34.13	4.944	21.25	28.54	86.65	9.741 ± 0.062	61.54 ± 0.39	89.29 ± 0.22	44.07 ± 1.69
29	1075	15	12.03	14.10	36.88	4.883	17.89	30.92	87.67	10.55 ± 0.08	66.58 ± 0.49	83.37 ± 0.22	40.64 ± 2.04
30	1100	19	12.64	13.76	35.58	4.180	26.73	34.47	89.93	11.37 ± 0.06	71.63 ± 0.39	79.34 ± 0.26	33.10 ± 1.25
31	1100	25	12.38	13.84	29.18	4.129	23.56	37.59	89.83	11.12 ± 0.11	70.10 ± 0.68	81.03 ± 0.60	33.41 ± 1.66
32	1100	45	12.94	14.12	27.05	4.837	32.57	41.91	88.66	11.48 ± 0.08	72.28 ± 0.49	77.50 ± 0.38	37.44 ± 1.27
33	1100	90	13.22	14.00	25.12	4.975	51.69	48.78	88.61	11.72 ± 0.10	73.80 ± 0.60	75.81 ± 0.51	37.68 ± 1.06
34	1100	120	13.26	13.90	23.78	5.558	47.28	55.05	87.34	11.59 ± 0.27	72.95 ± 1.67	75.61 ± 1.53	41.98 ± 1.34
35	1100	240	13.95	14.25	23.21	7.054	64.12	63.56	84.80	11.83 ± 0.15	74.46 ± 0.95	71.88 ± 0.76	50.67 ± 1.26
36	1100	480	15.00	14.53	20.79	10.51	35.07	68.21	79.05	11.86 ± 0.42	74.68 ± 2.56	66.80 ± 1.77	70.20 ± 3.40
37	1200	19	16.42	14.03	24.72	1.962	19.40	70.79	96.22	15.81 ± 0.68	98.85 ± 4.15	61.02 ± 2.53	11.94 ± 1.37
38	1233	15	18.86	14.29	19.08	1.855	16.05	72.92	96.86	18.27 ± 0.43	113.8 ± 2.6	53.13 ± 1.20	9.833 ± 1.407
39	1266	15	20.65	14.78	23.19	2.204	24.48	76.17	96.65	19.96 ± 0.66	123.9 ± 4.0	48.51 ± 1.55	10.67 ± 0.87
40	1300	19	20.55	14.73	25.52	2.161	33.56	80.62	96.71	19.88 ± 0.66	123.4 ± 3.9	48.74 ± 1.56	10.51 ± 0.74
41	1350	15	20.09	14.05	23.46	1.719	55.23	87.95	97.29	19.55 ± 0.34	121.5 ± 2.0	49.86 ± 0.83	8.542 ± 0.440
42	400	15	14.18	14.50	20.30	2.811	90.77	99.99	93.89	13.31 ± 0.42	83.58 ± 2.58	70.71 ± 2.10	19.85 ± 0.88

OR350B K-feldspar (23.7mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10^{2}	$^{38}Ar/^{39}Ar$[1] x10^{-1}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-1}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	400	15	0.9656	2.185	23.78	2.019	2.491	0.09044	38.16	36.87 ± 1.02	406.6 ± 10.1	1.036 ± 0.006	209.1 ± 3.2
2	400	22	0.2655	0.4668	-	0.6840	1.091	0.1301	23.65	6.309 ± 0.846	76.38 ± 10.03	3.771 ± 0.023	257.9 ± 10.7
3	450	15	0.5243	1.202	15.99	0.8916	4.619	0.2978	49.66	26.05 ± 0.39	296.5 ± 4.1	1.908 ± 0.008	170.1 ± 2.3
4	450	22	0.07969	0.2235	2.584	0.1647	3.408	0.4215	38.36	3.072 ± 0.275	37.60 ± 3.33	12.60 ± 0.04	207.4 ± 11.7
5	500	15	0.1591	0.4813	7.954	0.2529	11.73	0.8474	52.81	8.408 ± 0.122	101.1 ± 1.4	6.297 ± 0.017	159.2 ± 2.5
6	500	22	0.03766	0.1628	8.654	0.05622	9.105	1.178	54.87	2.075 ± 0.080	25.48 ± 0.98	26.77 ± 0.09	150.4 ± 7.2
7	550	15	0.07923	0.2835	14.05	0.1159	24.43	2.065	56.37	4.470 ± 0.051	54.45 ± 0.62	12.67 ± 0.02	146.8 ± 2.2
8	550	22	0.02735	0.1361	20.11	0.02385	18.24	2.727	72.97	2.002 ± 0.055	24.59 ± 0.67	36.97 ± 0.08	87.96 ± 6.88
9	600	15	0.04315	0.1882	18.63	0.05157	40.46	4.196	63.96	2.762 ± 0.030	33.84 ± 0.36	23.34 ± 0.03	120.2 ± 2.3
10	600	22	0.02388	0.1270	13.73	0.01256	30.12	5.290	83.06	1.988 ± 0.027	24.42 ± 0.32	42.41 ± 0.07	53.11 ± 3.77
11	650	15	0.03115	0.1569	9.761	0.02604	56.84	7.353	74.28	2.316 ± 0.019	28.42 ± 0.23	32.42 ± 0.04	84.35 ± 2.01
12	650	22	0.02325	0.1268	4.647	0.009346	40.87	8.837	86.70	2.019 ± 0.021	24.80 ± 0.26	43.58 ± 0.05	40.67 ± 3.11
13	700	15	0.02780	0.1371	4.426	0.01631	62.71	11.11	81.51	2.268 ± 0.016	27.83 ± 0.20	36.37 ± 0.05	59.29 ± 1.97
14	700	22	0.02450	0.1271	3.480	0.01009	38.08	12.50	86.46	2.122 ± 0.020	26.05 ± 0.25	41.32 ± 0.06	41.67 ± 2.77
15	750	15	0.02949	0.1371	3.662	0.01822	50.82	14.34	80.65	2.381 ± 0.022	29.21 ± 0.26	34.26 ± 0.05	62.37 ± 2.45
16	750	22	0.02645	0.1270	2.390	0.009965	30.60	15.45	87.57	2.320 ± 0.030	28.47 ± 0.36	38.25 ± 0.06	38.09 ± 3.79
17	800	15	0.02908	0.1312	3.050	0.01423	40.29	16.91	84.40	2.457 ± 0.026	30.14 ± 0.32	34.76 ± 0.05	49.43 ± 3.03
18	800	22	0.02862	0.1255	1.394	0.009947	28.72	17.96	88.51	2.538 ± 0.027	31.12 ± 0.32	35.32 ± 0.06	35.12 ± 3.14
19	825	19	0.02929	0.1233	2.224	0.009085	27.21	18.95	89.64	2.630 ± 0.023	32.24 ± 0.28	34.51 ± 0.06	31.33 ± 2.64

[1] Corrected for backgrounds (mean values in mol: m/e40 = 9.3 x10^{-17}; m/e39 = 4.2 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 2.8 x10^{-17}; m/e36 = 2.6 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 08-16-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006856 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR350B K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10^{2}	$^{38}Ar/^{39}Ar$ [1] x10^{-1}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-1}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
20	850	15	0.03022	0.1262	3.178	0.01042	26.72	19.92	88.65	2.684 ± 0.029	32.89 ± 0.35	33.43 ± 0.06	34.81 ± 3.20
21	875	15	0.03143	0.1263	2.711	0.009016	31.69	21.07	90.43	2.846 ± 0.022	34.86 ± 0.27	32.13 ± 0.05	28.95 ± 2.35
22	900	19	0.03302	0.1274	2.633	0.009806	41.53	22.57	90.21	2.982 ± 0.022	36.51 ± 0.27	30.57 ± 0.03	29.96 ± 2.23
23	925	15	0.03448	0.1325	3.401	0.01209	39.04	23.99	88.67	3.061 ± 0.025	37.46 ± 0.30	29.26 ± 0.06	35.35 ± 2.36
24	950	15	0.03546	0.1304	2.596	0.01201	45.53	25.64	89.06	3.161 ± 0.019	38.68 ± 0.24	28.45 ± 0.04	34.14 ± 1.82
25	975	19	0.03697	0.1344	2.881	0.01495	60.70	27.85	87.17	3.225 ± 0.016	39.45 ± 0.19	27.28 ± 0.03	40.77 ± 1.42
26	1000	15	0.03833	0.1373	3.749	0.01859	61.24	30.07	84.82	3.253 ± 0.017	39.79 ± 0.20	26.30 ± 0.04	48.88 ± 1.41
27	1025	15	0.03921	0.1407	4.080	0.02063	76.64	32.85	83.64	3.281 ± 0.014	40.13 ± 0.17	25.70 ± 0.03	53.01 ± 1.18
28	1050	19	0.04032	0.1438	3.750	0.02353	111.6	36.90	81.98	3.307 ± 0.016	40.44 ± 0.19	24.99 ± 0.04	58.76 ± 1.22
29	1075	15	0.04046	0.1454	3.034	0.02264	122.1	41.34	82.69	3.346 ± 0.015	40.92 ± 0.18	24.91 ± 0.04	56.37 ± 1.11
30	1100	19	0.04082	0.1479	3.172	0.02192	174.2	47.66	83.37	3.404 ± 0.011	41.61 ± 0.14	24.68 ± 0.05	54.08 ± 0.60
31	1100	25	0.04087	0.1471	3.227	0.01752	127.3	52.28	86.57	3.539 ± 0.012	43.25 ± 0.14	24.65 ± 0.04	43.17 ± 0.85
32	1100	45	0.04204	0.1479	3.267	0.01519	103.4	56.04	88.57	3.725 ± 0.012	45.49 ± 0.14	23.96 ± 0.04	36.38 ± 0.82
33	1100	90	0.04450	0.1515	3.055	0.01636	74.42	58.74	88.41	3.936 ± 0.017	48.03 ± 0.20	22.63 ± 0.03	37.01 ± 1.21
34	1100	120	0.04710	0.1563	2.837	0.02012	48.80	60.51	86.68	4.085 ± 0.022	49.82 ± 0.26	21.37 ± 0.03	42.99 ± 1.49
35	1100	240	0.05078	0.1619	3.139	0.02893	27.63	61.51	82.49	4.193 ± 0.032	51.13 ± 0.39	19.81 ± 0.03	57.30 ± 2.09
36	1100	480	0.05550	0.1665	2.066	0.04077	15.39	62.07	77.62	4.315 ± 0.057	52.59 ± 0.69	18.12 ± 0.04	73.86 ± 3.44
37	1200	19	0.04922	0.2035	8.843	0.02776	149.7	67.51	82.71	4.072 ± 0.017	49.67 ± 0.21	20.45 ± 0.05	56.70 ± 0.88
38	1233	15	0.04502	0.1621	1.513	0.01549	365.2	80.76	89.15	4.013 ± 0.016	48.97 ± 0.19	22.37 ± 0.07	34.63 ± 0.65
39	1266	15	0.04415	0.1509	0.8188	0.01306	342.4	93.19	90.55	3.999 ± 0.013	48.79 ± 0.15	22.81 ± 0.06	29.79 ± 0.42
40	1300	18	0.04768	0.1552	2.634	0.02448	103.2	96.94	84.17	4.014 ± 0.015	48.98 ± 0.18	21.11 ± 0.04	51.66 ± 0.92
41	1350	15	0.06070	0.2144	9.217	0.06354	49.53	98.74	68.55	4.163 ± 0.030	50.76 ± 0.36	16.56 ± 0.02	105.2 ± 1.6
42	1650	15	0.2615	0.2902	2.858	0.7281	34.71	99.99	17.62	4.609 ± 0.155	56.12 ± 1.86	3.828 ± 0.011	278.7 ± 1.9
43	1650	20	681.2	426.5	285.0	2219	0.010	99.99	3.741	2549 ± %36434	5262 ± %24387	0.002 ± 0.001	325.7 ± 177.5
44	1650	19	408.2	258.5	357.9	1336	0.0056	99.99	3.322	1357 ± %23958	4208 ± %28752	0.002 ± 0.001	327.2 ± 195.2

OR352A K-feldspar (24.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10[1]	$^{38}Ar/^{39}Ar$[1] x10[-2]	$^{37}Ar/^{39}Ar$[1] x10[-3]	$^{36}Ar/^{39}Ar$[1] x10[-2]	$^{39}Ar_K$[2] (mol) x10[-14]	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10[-1]	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10[-2]	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10[-4]
1	400	15	7.792	11.32	41.85	18.03	0.2934	0.06464	31.55	246.0 ± 8.0	282.1 ± 8.5	1.284 ± 0.006	23.15 ± 0.32
2	400	22	2.758	3.878	20.00	7.888	0.1728	0.1027	15.34	42.44 ± 7.18	51.93 ± 8.65	3.629 ± 0.022	28.63 ± 0.87
3	450	15	3.640	6.584	11.33	6.348	0.6060	0.2362	48.35	176.1 ± 3.3	206.4 ± 3.7	2.750 ± 0.009	17.45 ± 0.29
4	450	22	0.7356	1.912	1.901	1.630	0.5506	0.3575	33.99	25.10 ± 1.66	30.89 ± 2.03	13.65 ± 0.05	22.25 ± 0.76
5	500	15	1.308	3.124	8.693	2.097	1.691	0.7302	52.36	68.53 ± 1.05	83.13 ± 1.25	7.664 ± 0.016	16.07 ± 0.27
6	500	22	0.3524	1.439	5.909	0.4731	1.469	1.054	59.30	20.96 ± 0.57	25.83 ± 0.70	28.62 ± 0.07	13.54 ± 0.55
7	550	15	0.6652	2.013	22.30	0.9652	3.508	1.827	56.65	37.71 ± 0.60	46.21 ± 0.72	15.10 ± 0.02	14.57 ± 0.30
8	550	22	0.2539	1.320	46.85	0.2057	2.795	2.443	74.84	19.04 ± 0.33	23.49 ± 0.40	39.86 ± 0.08	8.149 ± 0.434
9	600	15	0.4607	1.664	53.88	0.5893	5.671	3.692	61.60	28.39 ± 0.30	34.91 ± 0.37	21.85 ± 0.03	12.84 ± 0.22
10	600	22	0.2281	1.274	57.06	0.1137	4.348	4.650	84.00	19.19 ± 0.23	23.67 ± 0.28	44.44 ± 0.07	4.983 ± 0.335
11	650	15	0.3446	1.446	32.43	0.3436	7.342	6.268	69.68	24.03 ± 0.23	29.59 ± 0.28	29.27 ± 0.04	10.03 ± 0.22
12	650	22	0.2299	1.265	7.424	0.09492	5.157	7.404	86.38	19.89 ± 0.17	24.52 ± 0.21	44.08 ± 0.07	4.175 ± 0.250
13	700	15	0.3550	1.419	5.736	0.3497	7.518	9.060	70.01	24.87 ± 0.18	30.61 ± 0.22	28.41 ± 0.04	9.930 ± 0.166
14	700	22	0.2409	1.272	4.778	0.1018	4.645	10.08	86.14	20.78 ± 0.20	25.61 ± 0.25	42.05 ± 0.07	4.274 ± 0.286
15	750	15	0.3143	1.348	4.474	0.2501	5.907	11.39	75.46	23.73 ± 0.21	29.23 ± 0.26	32.13 ± 0.05	8.032 ± 0.224
16	750	22	0.2569	1.266	4.354	0.1255	3.804	12.22	84.25	21.68 ± 0.23	26.71 ± 0.28	39.40 ± 0.06	4.941 ± 0.303
17	800	15	0.2867	1.292	3.567	0.1750	4.701	13.26	80.81	23.19 ± 0.19	28.56 ± 0.23	35.26 ± 0.05	6.168 ± 0.219
18	800	22	0.2665	1.271	3.942	0.1162	3.591	14.05	85.84	22.92 ± 0.23	28.23 ± 0.28	37.95 ± 0.05	4.408 ± 0.296
19	825	19	0.2802	1.273	2.411	0.1281	3.363	14.79	85.27	23.93 ± 0.28	29.46 ± 0.34	36.09 ± 0.07	4.619 ± 0.339

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.0 x10^{-16}; m/e39 = 5.3 x10^{-17}; m/e38 = 1.7 x10^{-17}; m/e37 = 2.7 x10^{-17}; m/e36 = 2.6 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-22-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006881 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR352A K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10[1]	$^{38}Ar/^{39}Ar$ [1] x10[-2]	$^{37}Ar/^{39}Ar$ [1] x10[-3]	$^{36}Ar/^{39}Ar$ [1] x10[-2]	$^{39}Ar_K$ [2] (mol) x10[-14]	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar*$ [3] (%)	$^{40}Ar*/^{39}Ar_K$ [4] ± 1σ x10[-1]	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10[-2]	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10[-4]
20	850	15	0.2928	1.287	3.326	0.1372	3.287	15.52	84.98	24.92 ± 0.31	30.67 ± 0.38	34.52 ± 0.07	4.734 ± 0.357
21	875	15	0.3088	1.319	1.599	0.1565	3.936	16.38	83.94	25.95 ± 0.25	31.93 ± 0.30	32.71 ± 0.05	5.116 ± 0.273
22	900	19	0.3234	1.331	2.224	0.1688	5.552	17.61	83.56	27.04 ± 0.18	33.27 ± 0.22	31.22 ± 0.03	5.267 ± 0.191
23	925	15	0.3439	1.350	3.134	0.1999	5.229	18.76	81.87	28.18 ± 0.24	34.65 ± 0.30	29.34 ± 0.04	5.862 ± 0.238
24	950	15	0.3660	1.376	4.178	0.2492	6.436	20.18	79.00	28.93 ± 0.17	35.56 ± 0.21	27.55 ± 0.04	6.863 ± 0.156
25	975	19	0.3822	1.425	5.855	0.2878	9.594	22.29	76.93	29.41 ± 0.16	36.15 ± 0.19	26.38 ± 0.04	7.586 ± 0.127
26	1000	15	0.4095	1.464	6.532	0.3513	9.962	24.48	73.88	30.26 ± 0.16	37.19 ± 0.19	24.61 ± 0.04	8.640 ± 0.123
27	1025	15	0.4198	1.487	6.319	0.3741	13.37	27.43	72.93	30.62 ± 0.14	37.62 ± 0.17	24.00 ± 0.04	8.973 ± 0.097
28	1050	19	0.4264	1.507	4.378	0.3741	21.61	32.19	73.36	31.29 ± 0.17	38.43 ± 0.20	23.62 ± 0.06	8.833 ± 0.104
29	1075	15	0.4311	1.511	2.789	0.3720	22.47	37.14	73.78	31.81 ± 0.16	39.07 ± 0.20	23.36 ± 0.06	8.690 ± 0.097
30	1100	19	0.4225	1.513	3.163	0.3116	28.60	43.44	77.47	32.74 ± 0.15	40.19 ± 0.18	23.84 ± 0.05	7.427 ± 0.096
31	1100	25	0.4114	1.520	3.515	0.2395	19.80	47.80	82.04	33.76 ± 0.13	41.43 ± 0.16	24.49 ± 0.05	5.863 ± 0.079
32	1100	45	0.4208	1.538	2.792	0.2271	20.37	52.29	83.31	35.07 ± 0.15	43.01 ± 0.18	23.94 ± 0.06	5.435 ± 0.086
33	1100	90	0.4389	1.573	2.179	0.2476	23.18	57.40	82.62	36.27 ± 0.15	44.47 ± 0.18	22.94 ± 0.05	5.680 ± 0.091
34	1100	120	0.4650	1.609	2.357	0.2992	19.12	61.61	80.32	37.36 ± 0.16	45.79 ± 0.19	21.65 ± 0.06	6.475 ± 0.077
35	1100	240	0.4936	1.622	1.686	0.3665	22.58	66.59	77.42	38.22 ± 0.21	46.84 ± 0.25	20.39 ± 0.05	7.472 ± 0.113
36	1100	480	0.5442	1.659	1.706	0.5256	28.23	72.81	70.89	38.59 ± 0.23	47.28 ± 0.28	18.48 ± 0.06	9.711 ± 0.100
37	1200	18	0.4775	1.718	2.523	0.3504	27.39	78.84	77.66	37.09 ± 0.17	45.47 ± 0.20	21.08 ± 0.05	7.385 ± 0.089
38	1233	15	0.4624	1.641	1.249	0.2792	59.09	91.86	81.48	37.68 ± 0.16	46.19 ± 0.19	21.77 ± 0.05	6.078 ± 0.092
39	1266	15	0.4646	1.537	1.121	0.2270	26.92	97.79	84.89	39.45 ± 0.15	48.32 ± 0.19	21.67 ± 0.05	4.917 ± 0.080
40	1300	18	0.4877	1.484	2.892	0.3291	4.554	98.80	79.38	38.74 ± 0.30	47.46 ± 0.36	20.63 ± 0.03	6.789 ± 0.203
41	1350	15	0.5974	1.634	27.40	0.7011	1.889	99.21	64.76	38.74 ± 0.58	47.46 ± 0.70	16.82 ± 0.03	11.78 ± 0.33
42	1650	15	0.9687	1.821	3.932	1.912	3.559	99.99	41.35	40.07 ± 0.68	49.07 ± 0.83	10.36 ± 0.02	19.80 ± 0.23
43	1650	19	417.3	267.9	-	1384	0.007	99.99	1.974	824.1 ± 4318	810.4 ± 3421	0.024 ± 0.002	33.17 ± 3.47
44	400	15	541.5	353.8	831.0	1804	0.006	99.99	1.541	835.6 ± 7499	819.5 ± 5911	0.018 ± 0.002	33.32 ± 4.65

OR363 K-feldspar (18.5mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-2}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	400	15	633.0	486.4	100.8	181.8	0.7229	0.07006	15.13	95.80 ± 17.49	528.8 ± 83.7	1.580 ± 0.033	287.2 ± 8.5
2	400	22	507.0	338.9	-	162.2	0.1854	0.08803	5.446	27.65 ± 40.98	169.1 ± 239.3	1.973 ± 0.096	320.0 ± 26.8
3	450	15	308.5	187.5	48.82	67.15	0.3110	0.1182	35.62	110.1 ± 10.2	595.7 ± 47.0	3.241 ± 0.084	217.7 ± 8.9
4	450	22	176.6	119.1	48.16	48.54	0.3313	0.1503	18.70	33.10 ± 15.47	200.7 ± 88.8	5.664 ± 0.394	275.0 ± 26.3
5	500	15	146.0	68.46	28.69	21.05	0.6636	0.2146	57.29	83.74 ± 4.24	470.1 ± 21.0	6.852 ± 0.154	144.2 ± 7.1
6	500	22	52.68	42.65	37.28	11.87	0.9760	0.3092	33.26	17.57 ± 2.88	109.3 ± 17.4	18.99 ± 0.72	225.5 ± 15.8
7	550	15	48.50	31.47	58.97	6.941	2.169	0.5194	57.58	27.96 ± 1.60	171.0 ± 9.3	20.63 ± 0.57	143.2 ± 7.2
8	550	22	22.10	21.48	69.65	3.925	2.570	0.7685	47.28	10.48 ± 0.69	65.96 ± 4.25	45.31 ± 0.92	177.8 ± 8.8
9	600	15	23.52	19.01	102.6	2.679	4.608	1.215	66.15	15.58 ± 0.34	97.25 ± 2.04	42.57 ± 0.35	114.0 ± 4.1
10	600	22	12.55	15.62	154.3	1.153	5.087	1.708	72.51	9.118 ± 0.252	57.55 ± 1.57	79.91 ± 0.95	91.85 ± 5.60
11	650	15	15.71	16.03	158.2	1.162	8.493	2.531	77.90	12.25 ± 0.49	76.89 ± 3.03	63.80 ± 1.90	73.94 ± 4.18
12	650	22	11.04	13.64	134.1	0.5840	8.344	3.340	84.02	9.290 ± 0.286	58.62 ± 1.77	90.85 ± 2.09	52.78 ± 4.27
13	700	15	14.82	15.09	125.1	1.129	15.15	4.808	77.26	11.45 ± 0.19	72.00 ± 1.17	67.65 ± 0.67	76.19 ± 2.91
14	700	22	10.39	13.01	103.5	0.3343	11.72	5.944	90.13	9.379 ± 0.165	59.17 ± 1.02	96.53 ± 1.33	32.04 ± 2.76
15	750	15	12.55	14.11	97.03	0.7650	19.79	7.862	81.72	10.26 ± 0.25	64.64 ± 1.53	79.89 ± 1.48	60.95 ± 2.56
16	750	22	10.35	13.03	72.25	0.3431	11.89	9.014	89.82	9.302 ± 0.217	58.69 ± 1.35	96.98 ± 1.85	33.12 ± 3.05
17	800	15	11.66	14.07	74.73	0.6517	18.94	10.85	83.18	9.703 ± 0.325	61.18 ± 2.02	86.03 ± 2.33	55.92 ± 2.82
18	800	22	10.59	12.92	57.19	0.2664	13.95	12.20	92.19	9.771 ± 0.254	61.60 ± 1.57	94.74 ± 2.14	25.12 ± 2.80
19	825	19	10.88	13.19	61.15	0.3924	15.27	13.68	88.99	9.691 ± 0.201	61.10 ± 1.25	92.19 ± 1.61	36.05 ± 2.24

[1] Corrected for backgrounds (mean values in mol: m/e40 = 8.9 x10^{-17}; m/e39 = 3.1 x10^{-17}; m/e38 = 6.9 x10^{-18}; m/e37 = 1.9 x10^{-17}; m/e36 = 1.0 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-15-2003)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)
[5] J-factor = 0.003555 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR363 K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$	$^{38}Ar/^{39}Ar^{1}$ x10^{-3}	$^{37}Ar/^{39}Ar^{1}$ x10^{-3}	$^{36}Ar/^{39}Ar^{1}$ x10^{-2}	$^{39}Ar_K{}^{2}$ (mol) x10^{-15}	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^{4}$ ± 1σ	Age^{5} ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar^{6}$ ± 1 σ x10^{-5}
20	850	15	10.74	12.97	59.04	0.3749	14.06	15.04	89.32	9.600 ± 0.155	60.54 ± 0.96	93.42 ± 1.14	34.90 ± 2.71
21	875	15	11.32	13.44	61.21	0.4480	14.99	16.50	87.97	9.966 ± 1.055	62.81 ± 6.54	88.61 ± 8.17	39.57 ± 6.49
22	900	19	11.15	13.17	56.30	0.3780	12.46	17.70	89.62	10.01 ± 0.24	63.05 ± 1.51	89.94 ± 1.88	33.88 ± 2.41
23	925	15	11.35	13.17	59.09	0.4829	10.76	18.75	87.06	9.892 ± 0.242	62.35 ± 1.50	88.38 ± 1.79	42.56 ± 2.50
24	950	15	13.30	14.53	61.91	1.015	11.86	19.90	77.14	10.27 ± 0.87	64.67 ± 5.38	75.40 ± 4.82	76.45 ± 6.91
25	975	19	14.64	15.50	65.08	1.487	19.77	21.81	69.75	10.22 ± 0.41	64.38 ± 2.56	68.45 ± 1.69	101.7 ± 5.3
26	1000	15	14.60	15.29	61.00	1.525	13.23	23.10	68.89	10.07 ± 0.50	63.43 ± 3.10	68.65 ± 2.21	104.6 ± 5.2
27	1025	15	13.64	14.74	58.35	1.100	12.76	24.33	75.88	10.36 ± 0.22	65.24 ± 1.35	73.49 ± 0.97	80.77 ± 3.31
28	1050	19	11.83	13.78	48.57	0.6293	25.33	26.79	83.98	9.937 ± 0.176	62.63 ± 1.09	84.80 ± 1.20	53.27 ± 1.80
29	1075	15	11.89	13.58	42.98	0.4182	18.81	28.61	89.28	10.62 ± 0.40	66.85 ± 2.45	84.38 ± 2.80	35.21 ± 2.01
30	1100	19	12.44	13.48	39.89	0.5113	18.99	30.45	87.55	10.90 ± 0.41	68.59 ± 2.55	80.59 ± 2.64	41.13 ± 2.47
31	1100	25	12.55	13.65	36.19	0.5140	19.45	32.34	87.59	11.00 ± 0.26	69.18 ± 1.57	79.92 ± 1.57	41.01 ± 1.97
32	1100	45	12.52	13.76	34.46	0.5701	29.38	35.18	86.26	10.80 ± 0.34	67.98 ± 2.10	80.10 ± 2.16	45.60 ± 1.81
33	1100	90	13.00	14.27	33.95	0.6391	56.70	40.68	85.20	11.07 ± 0.26	69.66 ± 1.60	77.15 ± 1.52	49.25 ± 1.60
34	1100	120	13.43	14.38	33.79	0.6956	59.96	46.49	84.44	11.34 ± 0.15	71.31 ± 0.90	74.65 ± 0.79	51.87 ± 1.06
35	1100	240	13.84	14.44	34.65	0.7861	66.49	52.93	82.97	11.49 ± 0.20	72.21 ± 1.21	72.42 ± 1.00	56.87 ± 1.40
36	1100	480	14.65	15.28	38.06	1.020	94.32	62.08	79.19	11.60 ± 0.21	72.90 ± 1.30	68.43 ± 0.97	69.75 ± 1.43
37	1200	19	17.32	16.92	61.54	1.379	36.91	65.65	76.28	13.22 ± 0.21	82.82 ± 1.29	57.85 ± 0.66	79.71 ± 1.74
38	1233	15	17.20	17.21	68.96	1.329	36.46	69.19	76.99	13.25 ± 0.19	83.01 ± 1.16	58.25 ± 0.59	77.30 ± 1.64
39	1266	15	16.35	16.68	63.19	1.073	61.47	75.14	80.42	13.15 ± 0.19	82.44 ± 1.16	61.28 ± 0.69	65.65 ± 1.30
40	1300	19	16.93	17.72	82.24	1.316	64.72	81.42	76.86	13.02 ± 0.26	81.62 ± 1.60	59.17 ± 0.86	77.73 ± 2.06
41	1350	15	19.18	18.62	95.88	1.418	109.1	91.99	77.99	14.96 ± 0.14	93.49 ± 0.86	52.23 ± 0.34	73.97 ± 1.24
42	400	15	20.95	17.80	109.0	1.043	82.67	99.99	85.15	17.85 ± 0.11	111.0 ± 0.7	47.80 ± 0.21	49.73 ± 0.92
43	1650	19	417.3	267.9	-	1384	0.007	99.99	1.974	824.1 ± 4318	810.4 ± 3421	0.024 ± 0.002	33.17 ± 3.47
44	400	15	541.5	353.8	831.0	1804	0.006	99.99	1.541	835.6 ± 7500	819.5 ± 5912	0.018 ± 0.002	33.32 ± 4.65

OR367 K-feldspar (20.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] $x10^{-3}$	$^{37}Ar/^{39}Ar$[1] $x10^{-3}$	$^{36}Ar/^{39}Ar$[1] $x10^{-2}$	$^{39}Ar_K$[2] (mol) $x10^{-15}$	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ $x10^{-1}$	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ $x10^{-3}$	$^{36}Ar/^{40}Ar$[6] ± 1 σ $x10^{-4}$
1	400	15	887.6	670.3	48.46	284.5	2.456	0.1728	5.284	469.3 ± 103.5	278.1 ± 56.9	1.127 ± 0.009	32.05 ± 0.38
2	400	22	486.3	338.7	41.49	161.6	0.7820	0.2278	1.799	87.71 ± 105.15	55.34 ± 65.33	2.056 ± 0.029	33.23 ± 0.73
3	450	15	151.1	152.1	26.30	41.17	2.212	0.3835	19.43	294.4 ± 17.9	179.4 ± 10.4	6.618 ± 0.042	27.25 ± 0.38
4	450	22	74.89	66.25	25.05	23.44	1.895	0.5169	7.439	56.07 ± 13.23	35.57 ± 8.31	13.36 ± 0.09	31.31 ± 0.59
5	500	15	50.96	59.71	16.69	13.07	5.997	0.9389	24.09	123.2 ± 4.6	77.23 ± 2.85	19.63 ± 0.09	25.66 ± 0.29
6	500	22	15.01	20.84	14.93	3.666	5.778	1.345	27.33	41.44 ± 2.41	26.36 ± 1.52	66.77 ± 0.31	24.48 ± 0.53
7	550	15	20.02	27.79	14.86	4.485	13.34	2.284	33.55	67.40 ± 1.95	42.67 ± 1.22	50.02 ± 0.16	22.43 ± 0.32
8	550	22	7.803	14.92	19.22	1.098	11.89	3.121	57.46	45.27 ± 0.91	28.77 ± 0.57	128.7 ± 0.4	14.12 ± 0.38
9	600	15	15.94	22.19	22.25	3.307	22.35	4.693	38.42	61.42 ± 1.09	38.93 ± 0.69	62.85 ± 0.15	20.78 ± 0.22
10	600	22	7.204	13.59	21.42	0.5148	18.81	6.017	77.93	56.52 ± 0.58	35.85 ± 0.36	139.4 ± 0.5	7.170 ± 0.250
11	650	15	12.83	17.80	21.11	2.007	32.38	8.296	53.43	68.73 ± 0.93	43.50 ± 0.58	78.12 ± 0.26	15.67 ± 0.23
12	650	22	7.857	13.08	18.53	0.2694	26.52	10.16	89.08	70.29 ± 0.49	44.48 ± 0.31	127.8 ± 0.4	3.437 ± 0.176
13	700	15	11.25	15.51	21.82	1.192	36.02	12.70	68.26	76.94 ± 0.59	48.63 ± 0.37	89.18 ± 0.17	10.62 ± 0.17
14	700	22	8.700	13.08	20.37	0.2829	25.90	14.52	89.67	78.33 ± 0.44	49.50 ± 0.27	115.4 ± 0.4	3.258 ± 0.130
15	750	15	10.84	14.70	23.77	0.9199	30.63	16.68	74.43	80.89 ± 0.52	51.10 ± 0.32	92.55 ± 0.18	8.507 ± 0.149
16	750	22	9.603	13.46	19.79	0.4811	24.05	18.37	84.54	81.50 ± 0.49	51.47 ± 0.30	104.5 ± 0.3	5.022 ± 0.140
17	800	15	12.01	15.35	22.67	1.270	28.19	20.35	68.33	82.29 ± 0.56	51.97 ± 0.35	83.48 ± 0.16	10.59 ± 0.15
18	800	22	8.733	12.94	18.29	0.1936	22.63	21.94	92.67	81.29 ± 0.42	51.35 ± 0.26	114.9 ± 0.2	2.220 ± 0.147
19	825	16	9.003	12.93	18.98	0.3107	17.94	23.21	88.96	80.54 ± 0.52	50.87 ± 0.32	111.5 ± 0.3	3.458 ± 0.171

[1] Corrected for backgrounds (mean values in mol: m/e40 = $6.0x10^{-16}$; m/e39 = $2.4x10^{-17}$; m/e38 = $7.7x10^{-18}$; m/e37 = $2.0x10^{-17}$; m/e36 = $1.2x10^{-17}$), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 302.0±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-21-2004; analyzed: 05-23-2004)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0328; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00028; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00073)

[5] J-factor = 0.003551 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR367 K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-2}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-4}
20	850	15	10.47	13.85	19.38	0.7878	19.56	24.58	77.14	81.14 ± 0.75	51.25 ± 0.47	95.78 ± 0.21	7.540 ± 0.231
21	875	15	13.68	16.11	20.49	1.868	22.57	26.17	59.23	81.24 ± 0.85	51.31 ± 0.53	73.30 ± 0.16	13.69 ± 0.20
22	900	18	13.37	16.09	19.78	1.753	28.53	28.18	60.87	81.58 ± 0.85	51.52 ± 0.53	74.98 ± 0.18	13.14 ± 0.20
23	925	15	13.59	16.15	18.87	1.837	26.59	30.05	59.66	81.26 ± 0.90	51.32 ± 0.56	73.78 ± 0.20	13.55 ± 0.21
24	950	15	10.50	14.27	14.81	0.7988	29.39	32.12	77.00	81.12 ± 0.56	51.24 ± 0.35	95.50 ± 0.20	7.625 ± 0.169
25	975	16	9.014	13.38	12.00	0.2835	34.11	34.52	90.09	81.45 ± 0.38	51.44 ± 0.24	111.3 ± 0.3	3.153 ± 0.119
26	1000	15	8.966	13.31	11.26	0.2632	33.06	36.85	90.69	81.56 ± 0.45	51.51 ± 0.28	111.9 ± 0.3	2.943 ± 0.149
27	1025	15	9.012	13.45	11.60	0.2878	35.59	39.35	89.96	81.30 ± 0.42	51.35 ± 0.26	111.4 ± 0.2	3.202 ± 0.143
28	1050	16	9.243	13.82	12.88	0.3574	41.81	42.29	88.03	81.56 ± 0.36	51.51 ± 0.23	108.6 ± 0.3	3.876 ± 0.107
29	1075	15	9.303	13.99	13.49	0.3811	41.70	45.23	87.35	81.45 ± 0.37	51.44 ± 0.23	107.9 ± 0.3	4.107 ± 0.107
30	1100	16	9.484	14.50	14.76	0.4374	49.15	48.69	85.87	81.60 ± 0.45	51.54 ± 0.28	105.8 ± 0.4	4.624 ± 0.116
31	1100	25	9.535	14.50	14.46	0.4183	52.70	52.39	86.55	82.67 ± 0.27	52.20 ± 0.17	105.2 ± 0.2	4.398 ± 0.071
32	1100	45	9.684	14.74	15.90	0.4397	64.46	56.93	86.13	83.53 ± 0.35	52.74 ± 0.22	103.6 ± 0.2	4.551 ± 0.101
33	1100	90	9.996	15.11	18.95	0.5250	80.99	62.63	84.08	84.14 ± 0.35	53.12 ± 0.22	100.4 ± 0.2	5.264 ± 0.088
34	1100	180	10.56	15.75	22.18	0.6843	96.26	69.40	80.48	85.03 ± 0.35	53.67 ± 0.22	95.03 ± 0.22	6.497 ± 0.081
35	1100	420	11.01	16.04	21.24	0.8234	88.28	75.62	77.54	85.45 ± 0.39	53.93 ± 0.24	91.10 ± 0.22	7.496 ± 0.089
36	1200	18	14.89	21.59	72.30	2.283	42.10	78.58	54.43	81.14 ± 0.65	51.25 ± 0.40	67.32 ± 0.17	15.36 ± 0.13
37	1240	15	16.44	22.57	63.52	2.809	48.47	81.99	49.29	81.13 ± 0.82	51.24 ± 0.51	60.94 ± 0.14	17.11 ± 0.15
38	1280	15	12.15	17.14	23.24	1.200	85.35	87.99	70.50	85.73 ± 0.39	54.11 ± 0.24	82.53 ± 0.19	9.898 ± 0.080
39	1350	18	11.85	16.72	22.66	1.045	87.35	94.14	73.60	87.26 ± 0.46	55.06 ± 0.28	84.66 ± 0.21	8.842 ± 0.102
40	1550	15	10.61	15.63	15.18	0.6184	83.25	99.99	82.40	87.53 ± 0.37	55.22 ± 0.23	94.53 ± 0.22	5.841 ± 0.089

OR371 K-feldspar (17.9mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-4}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	400	15	330.5	240.6	340.8	758.6	1.552	0.1496	32.15	106.3 ± 5.5	576.9 ± 25.7	0.303 ± 0.004	229.6 ± 4.8
2	400	22	63.39	63.91	178.7	184.8	0.5666	0.2042	13.70	8.736 ± 2.153	55.03 ± 13.36	1.578 ± 0.020	291.7 ± 11.3
3	450	15	99.32	63.48	-	95.31	1.449	0.3439	71.51	71.12 ± 2.48	405.6 ± 12.7	1.007 ± 0.022	96.00 ± 4.51
4	450	22	16.16	23.32	153.5	35.60	1.304	0.4696	34.38	5.610 ± 0.980	35.53 ± 6.15	6.200 ± 0.125	220.7 ± 19.9
5	500	15	39.96	34.06	158.1	38.37	3.402	0.7974	71.44	28.59 ± 0.67	174.2 ± 3.9	2.504 ± 0.024	96.09 ± 4.70
6	500	22	6.831	15.00	130.2	11.46	3.343	1.120	49.50	3.411 ± 0.235	21.68 ± 1.48	14.71 ± 0.21	168.6 ± 10.9
7	550	15	16.13	20.74	97.75	15.09	7.264	1.820	72.03	11.64 ± 0.27	72.96 ± 1.69	6.212 ± 0.084	93.71 ± 3.77
8	550	22	4.505	13.57	138.8	5.008	6.137	2.411	65.93	2.992 ± 0.184	19.03 ± 1.17	22.37 ± 0.47	111.9 ± 12.2
9	600	15	8.960	15.62	213.3	8.262	10.16	3.391	72.23	6.486 ± 0.188	41.01 ± 1.18	11.20 ± 0.18	92.51 ± 4.79
10	600	22	3.654	13.64	254.3	3.076	8.347	4.196	73.75	2.712 ± 0.129	17.27 ± 0.82	27.63 ± 0.42	84.82 ± 10.99
11	650	15	6.305	14.49	294.5	5.047	12.95	5.444	75.65	4.781 ± 0.109	30.32 ± 0.69	15.95 ± 0.15	80.38 ± 5.02
12	650	22	4.403	11.88	242.8	1.512	8.986	6.310	88.66	3.924 ± 0.269	24.92 ± 1.70	22.89 ± 1.28	34.48 ± 9.15
13	700	15	6.193	12.23	180.2	3.031	12.34	7.500	84.78	5.264 ± 0.242	33.36 ± 1.52	16.24 ± 0.60	49.15 ± 5.10
14	700	22	4.641	12.46	105.0	1.072	11.67	8.624	92.11	4.291 ± 0.127	27.24 ± 0.80	21.71 ± 0.47	23.21 ± 5.82
15	750	15	5.754	13.12	18.55	2.496	15.28	10.10	86.39	4.982 ± 0.126	31.59 ± 0.79	17.48 ± 0.30	43.64 ± 4.67
16	750	22	4.767	11.83	-	0.7805	12.09	11.26	94.11	4.502 ± 0.100	28.57 ± 0.63	21.13 ± 0.33	16.49 ± 4.82
17	800	15	5.677	12.79	3.405	1.809	15.29	12.74	89.77	5.108 ± 0.225	32.38 ± 1.42	17.72 ± 0.69	32.06 ± 3.55
18	800	22	5.228	11.69	-	1.010	12.03	13.89	93.34	4.895 ± 0.279	31.04 ± 1.75	19.25 ± 0.98	19.44 ± 5.96
19	825	19	5.022	12.35	2.382	0.8545	11.46	15.00	93.96	4.735 ± 0.366	30.04 ± 2.30	20.05 ± 1.41	17.13 ± 7.16

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.3 x10^{-16}; m/e39 = 1.6 x10^{-17}; m/e38 = 9.2 x10^{-18}; m/e37 = 2.4 x10^{-17}; m/e36 = 1.4 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-03-2003; analyzed: 06-19-2003)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0345; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00023; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00078)
[5] J-factor = 0.003545 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR371 K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-4}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
20	850	15	5.027	12.01	24.90	1.027	13.05	16.26	93.00	4.690 ± 0.131	29.75 ± 0.83	20.03 ± 0.45	20.56 ± 4.53
21	875	15	5.085	12.73	14.83	0.9088	13.56	17.56	93.77	4.782 ± 0.209	30.33 ± 1.31	19.80 ± 0.77	17.99 ± 4.88
22	900	19	5.395	12.26	13.26	1.339	18.91	19.39	91.85	4.965 ± 0.257	31.48 ± 1.61	18.66 ± 0.87	24.97 ± 4.02
23	925	15	5.237	12.04	4.605	0.9317	16.71	21.00	93.87	4.927 ± 0.105	31.24 ± 0.66	19.22 ± 0.30	17.91 ± 4.41
24	950	15	5.594	12.75	32.10	0.9863	17.62	22.70	93.99	5.269 ± 0.201	33.39 ± 1.26	17.99 ± 0.63	17.73 ± 2.89
25	975	19	5.904	13.35	18.41	1.165	21.73	24.79	93.44	5.525 ± 0.113	35.00 ± 0.71	17.04 ± 0.31	19.84 ± 2.19
26	1000	15	6.039	12.41	30.47	1.068	18.29	26.55	94.03	5.689 ± 0.141	36.02 ± 0.88	16.66 ± 0.37	17.78 ± 2.71
27	1025	15	6.369	12.53	25.92	1.447	20.87	28.56	92.61	5.907 ± 0.068	37.39 ± 0.42	15.79 ± 0.13	22.83 ± 2.23
28	1050	19	6.650	12.37	33.46	1.615	27.07	31.17	92.20	6.138 ± 0.128	38.84 ± 0.80	15.12 ± 0.28	24.41 ± 2.00
29	1075	15	6.942	12.84	41.14	2.105	23.43	33.43	90.43	6.285 ± 0.051	39.76 ± 0.32	14.48 ± 0.06	30.46 ± 2.04
30	1100	19	7.086	13.01	45.42	2.141	30.53	36.37	90.50	6.419 ± 0.040	40.59 ± 0.25	14.18 ± 0.05	30.35 ± 1.53
31	1100	25	7.190	13.15	34.34	1.979	27.84	39.06	91.30	6.571 ± 0.049	41.55 ± 0.30	13.97 ± 0.05	27.64 ± 1.92
32	1100	45	7.469	12.86	35.38	2.279	35.02	42.43	90.45	6.761 ± 0.090	42.74 ± 0.56	13.45 ± 0.15	30.65 ± 1.39
33	1100	90	7.844	13.14	23.16	2.502	43.88	46.66	90.08	7.070 ± 0.242	44.66 ± 1.51	12.81 ± 0.39	32.03 ± 1.91
34	1100	180	7.073	12.73	23.96	2.184	80.74	54.45	90.36	6.393 ± 0.324	40.43 ± 2.03	14.21 ± 0.65	31.03 ± 2.16
35	1100	420	8.026	13.04	27.98	2.669	117.1	65.74	89.73	7.203 ± 0.130	45.49 ± 0.81	12.51 ± 0.20	33.39 ± 1.09
36	1200	19	7.610	13.72	63.52	2.588	26.03	68.25	89.41	6.811 ± 0.281	43.05 ± 1.76	13.20 ± 0.48	34.15 ± 2.65
37	1240	15	7.301	12.65	32.07	1.466	24.90	70.65	93.49	6.833 ± 0.218	43.19 ± 1.36	13.76 ± 0.40	20.16 ± 2.41
38	1280	15	7.190	12.85	41.35	1.203	31.69	73.70	94.50	6.800 ± 0.206	42.98 ± 1.28	13.98 ± 0.40	16.80 ± 1.72
39	1350	19	7.292	13.19	42.62	1.305	102.0	83.53	94.22	6.872 ± 0.336	43.43 ± 2.10	13.78 ± 0.64	17.96 ± 1.38
40	400	15	7.948	13.48	12.23	1.300	170.9	99.99	94.72	7.529 ± 0.364	47.53 ± 2.26	12.64 ± 0.58	16.43 ± 1.18

OR420A K-feldspar (21.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-2}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-4}
1	400	15	850.1	648.2	120.7	249.4	2.070	0.1027	13.30	113.2 ± 10.4	609.2 ± 47.5	1.176 ± 0.010	29.34 ± 0.39
2	400	22	431.0	302.2	126.4	138.3	0.6842	0.1366	5.182	22.41 ± 8.68	138.1 ± 51.5	2.320 ± 0.028	32.08 ± 0.67
3	450	15	191.8	197.5	88.80	46.16	1.195	0.1958	28.75	55.37 ± 2.75	323.8 ± 14.7	5.214 ± 0.048	24.07 ± 0.43
4	450	22	75.75	69.04	78.64	22.37	1.346	0.2626	12.57	9.612 ± 1.397	60.53 ± 8.65	13.21 ± 0.09	29.55 ± 0.61
5	500	15	57.32	70.49	56.38	11.19	3.160	0.4192	42.03	24.22 ± 0.61	148.8 ± 3.6	17.45 ± 0.07	19.54 ± 0.34
6	500	22	17.20	23.36	51.92	3.971	3.727	0.6040	31.16	5.438 ± 0.389	34.49 ± 2.44	58.25 ± 0.31	23.12 ± 0.75
7	550	13	23.28	32.08	52.51	4.061	7.666	0.9841	48.07	11.25 ± 0.26	70.64 ± 1.57	43.02 ± 0.09	17.46 ± 0.37
8	550	22	8.589	17.23	80.60	1.315	8.797	1.420	53.80	4.678 ± 0.156	29.71 ± 0.98	116.9 ± 0.4	15.34 ± 0.61
9	600	15	13.66	21.77	121.8	2.094	16.60	2.243	54.30	7.447 ± 0.110	47.08 ± 0.69	73.39 ± 0.16	15.35 ± 0.27
10	600	22	6.792	13.87	135.1	0.5511	17.06	3.089	75.10	5.143 ± 0.080	32.64 ± 0.51	147.9 ± 0.3	8.098 ± 0.396
11	650	15	11.38	18.18	136.6	1.491	28.34	4.494	60.93	6.956 ± 0.081	44.01 ± 0.51	88.10 ± 0.18	13.10 ± 0.23
12	650	22	7.439	13.64	118.6	0.4482	27.89	5.877	81.52	6.092 ± 0.049	38.60 ± 0.31	135.0 ± 0.3	6.007 ± 0.214
13	700	15	10.42	15.45	98.69	1.118	41.16	7.918	67.93	7.097 ± 0.054	44.89 ± 0.34	96.23 ± 0.22	10.73 ± 0.16
14	700	22	7.726	12.91	63.12	0.2146	39.25	9.865	91.16	7.065 ± 0.029	44.69 ± 0.18	130.0 ± 0.3	2.766 ± 0.102
15	750	15	9.168	13.70	51.83	0.4858	48.66	12.28	83.86	7.704 ± 0.038	48.68 ± 0.24	109.5 ± 0.2	5.302 ± 0.124
16	750	22	8.571	12.95	40.76	0.2014	45.73	14.54	92.49	7.946 ± 0.028	50.19 ± 0.18	117.1 ± 0.2	2.345 ± 0.094
17	800	15	9.368	13.31	46.56	0.3411	51.36	17.09	88.76	8.331 ± 0.033	52.58 ± 0.21	107.1 ± 0.2	3.640 ± 0.093
18	800	22	8.980	12.74	42.49	0.1864	44.64	19.30	93.32	8.400 ± 0.013	53.01 ± 0.08	111.8 ± 0.1	2.070 ± 0.037
19	825	15	9.274	13.03	42.50	0.2819	31.43	20.86	90.41	8.412 ± 0.045	53.09 ± 0.28	108.2 ± 0.3	3.037 ± 0.142

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.2×10^{-16}; m/e39 = 2.8×10^{-17}; m/e38 = 8.7×10^{-18}; m/e37 = 1.9×10^{-17}; m/e36 = 1.2×10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 302.0±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-21-2004; analyzed: 06-05-2004)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0328; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00028; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00073)

[5] J-factor = 0.003550 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

OR420A K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-2}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-4}
20	850	15	9.456	13.39	43.84	0.3241	35.92	22.64	89.32	8.469 ± 0.048	53.44 ± 0.30	106.1 ± 0.4	3.427 ± 0.122
21	875	15	9.686	13.26	40.98	0.3343	38.48	24.55	89.27	8.669 ± 0.041	54.68 ± 0.25	103.6 ± 0.3	3.452 ± 0.115
22	900	18	9.908	13.39	37.74	0.3946	45.45	26.81	87.75	8.712 ± 0.026	54.95 ± 0.16	101.3 ± 0.2	3.985 ± 0.072
23	925	15	10.26	13.60	36.60	0.4990	39.05	28.74	85.14	8.753 ± 0.040	55.20 ± 0.25	97.81 ± 0.24	4.871 ± 0.104
24	950	15	10.43	13.86	31.99	0.5875	40.41	30.74	82.89	8.667 ± 0.047	54.67 ± 0.29	96.15 ± 0.20	5.641 ± 0.135
25	975	17	9.763	13.53	24.68	0.3454	44.90	32.97	89.04	8.712 ± 0.033	54.95 ± 0.21	102.8 ± 0.2	3.543 ± 0.098
26	1000	15	9.505	13.36	21.12	0.2532	40.91	35.00	91.58	8.726 ± 0.036	55.04 ± 0.22	105.6 ± 0.2	2.667 ± 0.102
27	1025	15	9.696	13.74	21.29	0.3051	43.31	37.15	90.18	8.763 ± 0.031	55.27 ± 0.19	103.5 ± 0.2	3.151 ± 0.091
28	1050	17	9.976	14.28	22.62	0.3843	51.29	39.69	88.15	8.810 ± 0.034	55.56 ± 0.21	100.6 ± 0.2	3.858 ± 0.093
29	1075	15	10.28	14.56	25.32	0.4692	48.67	42.10	86.05	8.858 ± 0.035	55.86 ± 0.22	97.63 ± 0.20	4.574 ± 0.092
30	1100	17	10.58	14.74	27.68	0.5438	58.95	45.03	84.40	8.942 ± 0.047	56.38 ± 0.29	94.82 ± 0.30	5.149 ± 0.109
31	1100	25	11.03	15.02	26.16	0.6405	59.83	47.99	82.45	9.107 ± 0.053	57.40 ± 0.33	90.93 ± 0.34	5.817 ± 0.105
32	1100	45	12.56	16.21	27.60	1.066	72.81	51.60	74.59	9.375 ± 0.050	59.07 ± 0.31	79.85 ± 0.21	8.507 ± 0.103
33	1100	90	14.75	17.77	30.59	1.685	95.77	56.35	65.97	9.743 ± 0.062	61.35 ± 0.39	67.93 ± 0.20	11.44 ± 0.11
34	1100	180	15.75	18.42	33.46	1.930	109.3	61.77	63.55	10.02 ± 0.07	63.05 ± 0.42	63.62 ± 0.21	12.27 ± 0.10
35	1100	420	17.29	19.51	34.32	2.340	127.8	68.11	59.79	10.34 ± 0.09	65.05 ± 0.54	57.96 ± 0.23	13.56 ± 0.12
36	1200	17	17.02	22.34	118.8	1.850	33.07	69.75	67.64	11.54 ± 0.08	72.41 ± 0.52	58.85 ± 0.12	10.87 ± 0.16
37	1240	15	18.15	24.63	114.6	2.175	57.76	72.61	64.39	11.70 ± 0.06	73.40 ± 0.38	55.20 ± 0.04	11.99 ± 0.11
38	1280	15	13.67	18.91	44.65	0.9430	227.1	83.87	79.31	10.85 ± 0.05	68.19 ± 0.30	73.35 ± 0.16	6.908 ± 0.098
39	1350	18	12.65	16.70	32.25	0.6343	272.0	97.36	84.85	10.74 ± 0.04	67.53 ± 0.24	79.27 ± 0.19	5.021 ± 0.064
40	1550	15	16.23	19.42	38.74	1.643	53.24	99.99	69.82	11.34 ± 0.06	71.22 ± 0.38	61.75 ± 0.14	10.14 ± 0.11

OR422 K-feldspar (20.8mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-2}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ	Age [5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	400	15	895.8	601.8	70.71	267.5	2.200	0.08761	11.76	105.4 ± 22.4	573.3 ± 104.3	0.112 ± 0.002	298.6 ± 7.9
2	400	22	361.2	253.7	48.10	112.2	0.6425	0.1132	8.197	29.71 ± 10.16	180.9 ± 58.8	0.277 ± 0.005	310.6 ± 9.2
3	450	15	181.3	140.4	49.56	35.99	1.306	0.1652	41.17	74.89 ± 3.85	425.2 ± 19.5	0.552 ± 0.009	198.6 ± 5.5
4	450	22	69.76	60.54	44.14	19.52	1.296	0.2168	17.10	12.03 ± 1.84	75.44 ± 11.33	1.434 ± 0.019	280.0 ± 8.6
5	500	15	75.19	68.70	31.54	12.84	3.366	0.3509	49.35	37.22 ± 0.97	223.8 ± 5.5	1.330 ± 0.010	170.8 ± 3.8
6	500	22	17.73	23.40	24.98	3.863	3.742	0.4999	35.01	6.283 ± 0.397	39.78 ± 2.49	5.651 ± 0.041	218.3 ± 7.4
7	550	15	29.02	31.51	29.77	5.030	8.049	0.8205	48.51	14.13 ± 0.35	88.26 ± 2.16	3.449 ± 0.013	173.5 ± 4.0
8	550	22	9.721	17.07	52.53	1.714	8.582	1.162	47.16	4.629 ± 0.182	29.39 ± 1.15	10.32 ± 0.05	176.7 ± 6.2
9	600	15	15.86	21.15	83.84	2.586	16.06	1.802	51.50	8.196 ± 0.170	51.72 ± 1.06	6.317 ± 0.021	163.2 ± 3.5
10	600	22	6.451	14.12	91.95	0.7097	16.29	2.451	66.59	4.329 ± 0.092	27.50 ± 0.58	15.58 ± 0.04	110.2 ± 4.7
11	650	15	10.09	17.10	88.01	1.383	26.82	3.519	59.08	5.982 ± 0.096	37.90 ± 0.60	9.939 ± 0.023	137.2 ± 3.2
12	650	22	5.632	13.22	68.69	0.4042	27.04	4.596	77.90	4.411 ± 0.054	28.02 ± 0.34	17.86 ± 0.04	71.85 ± 3.18
13	700	15	7.724	14.74	40.96	0.8009	39.41	6.165	68.80	5.329 ± 0.041	33.80 ± 0.26	13.00 ± 0.02	104.0 ± 1.7
14	700	22	5.631	13.04	20.58	0.2795	35.44	7.577	84.44	4.774 ± 0.040	30.31 ± 0.25	17.86 ± 0.03	49.82 ± 2.36
15	750	15	7.019	13.84	21.26	0.5135	42.86	9.284	77.73	5.471 ± 0.042	34.69 ± 0.26	14.31 ± 0.03	73.42 ± 1.94
16	750	22	5.867	12.89	17.92	0.1517	36.14	10.72	91.48	5.387 ± 0.029	34.17 ± 0.19	17.14 ± 0.04	25.91 ± 1.55
17	800	15	6.980	13.16	20.03	0.3508	39.68	12.30	84.46	5.912 ± 0.039	37.46 ± 0.25	14.39 ± 0.03	50.42 ± 1.80
18	800	22	6.456	12.47	20.96	0.1552	33.42	13.64	92.07	5.966 ± 0.032	37.80 ± 0.20	15.57 ± 0.03	24.07 ± 1.53
19	825	16	6.893	12.59	23.05	0.2037	25.40	14.65	90.41	6.260 ± 0.047	39.64 ± 0.29	14.58 ± 0.03	29.60 ± 2.20

[1] Corrected for backgrounds (mean values in mol: m/e40 = 5.2x10^{-16}; m/e39 = 2.3x10^{-17}; m/e38 = 7.3x10^{-18}; m/e37 = 2.4x10^{-17}; m/e36 = 1.2x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 295.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-21-2004; analyzed: 06-13-2004)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0328; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00028; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00073)
[5] J-factor = 0.003549 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR422 K-feldspar (continued)

	T (°C)	Time (min.)	^{40}Ar/^{39}Ar[1]	^{38}Ar/^{39}Ar[1] x10^{-3}	^{37}Ar/^{39}Ar[1] x10^{-3}	^{36}Ar/^{39}Ar[1] x10^{-2}	^{39}Ar$_K$[2] (mol) x10^{-15}	Σ ^{39}Ar$_K$ (%)	^{40}Ar*[3] (%)	^{40}Ar*/^{39}Ar$_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	^{39}Ar$_K$/^{40}Ar[6] ± 1 σ x10^{-2}	^{36}Ar/^{40}Ar[6] ± 1 σ x10^{-5}
20	850	15	7.314	12.91	25.88	0.2793	26.01	15.68	87.92	6.458 ± 0.055	40.88 ± 0.35	13.73 ± 0.03	38.26 ± 2.47
21	875	15	7.932	13.19	25.83	0.3852	28.34	16.81	84.96	6.763 ± 0.051	42.79 ± 0.32	12.66 ± 0.03	48.67 ± 2.03
22	900	16	8.062	13.02	24.09	0.3201	31.25	18.06	87.61	7.086 ± 0.055	44.80 ± 0.34	12.45 ± 0.03	39.78 ± 2.14
23	925	15	8.581	13.05	20.73	0.4002	29.35	19.22	85.58	7.367 ± 0.057	46.56 ± 0.35	11.70 ± 0.03	46.75 ± 2.04
24	950	15	8.913	13.33	17.90	0.3947	31.39	20.48	86.31	7.715 ± 0.052	48.73 ± 0.33	11.26 ± 0.02	44.40 ± 1.88
25	975	16	8.894	13.17	14.35	0.2841	36.54	21.93	89.98	8.023 ± 0.037	50.65 ± 0.23	11.28 ± 0.02	32.02 ± 1.31
26	1000	15	8.977	13.18	11.55	0.2519	37.37	23.42	91.14	8.201 ± 0.043	51.76 ± 0.27	11.18 ± 0.02	28.12 ± 1.52
27	1025	15	9.211	13.08	10.08	0.2778	43.59	25.16	90.56	8.358 ± 0.043	52.74 ± 0.27	10.90 ± 0.02	30.24 ± 1.45
28	1050	16	9.333	13.47	9.677	0.3096	56.57	27.41	89.72	8.386 ± 0.035	52.91 ± 0.22	10.75 ± 0.02	33.26 ± 1.03
29	1075	15	9.492	13.73	9.249	0.3653	64.18	29.96	88.18	8.381 ± 0.036	52.87 ± 0.22	10.57 ± 0.02	38.59 ± 1.07
30	1100	16	9.519	13.90	8.758	0.3514	89.64	33.54	88.67	8.448 ± 0.030	53.29 ± 0.19	10.54 ± 0.02	37.02 ± 0.72
31	1100	25	9.399	13.58	7.704	0.3198	106.2	37.76	89.53	8.422 ± 0.032	53.13 ± 0.20	10.68 ± 0.03	34.12 ± 0.77
32	1100	45	9.441	13.57	7.845	0.2997	151.3	43.79	90.20	8.523 ± 0.032	53.76 ± 0.20	10.63 ± 0.03	31.83 ± 0.67
33	1100	90	9.658	13.69	8.808	0.2974	175.4	50.77	90.50	8.747 ± 0.033	55.15 ± 0.20	10.39 ± 0.03	30.88 ± 0.59
34	1100	180	10.16	14.00	10.89	0.3817	175.5	57.76	88.52	9.000 ± 0.039	56.72 ± 0.24	9.875 ± 0.034	37.67 ± 0.65
35	1100	420	11.16	14.71	12.64	0.6222	176.8	64.80	83.19	9.292 ± 0.056	58.53 ± 0.35	8.985 ± 0.036	55.87 ± 1.03
36	1200	16	11.84	15.35	32.33	0.6653	43.86	66.55	83.01	9.845 ± 0.018	61.96 ± 0.11	8.468 ± 0.009	56.26 ± 0.35
37	1240	15	12.36	15.93	38.16	0.7750	121.0	71.37	81.16	10.04 ± 0.05	63.15 ± 0.32	8.114 ± 0.023	62.80 ± 1.07
38	1280	15	10.81	15.06	14.73	0.3375	252.4	81.42	90.38	9.778 ± 0.041	61.54 ± 0.25	9.281 ± 0.022	31.29 ± 0.98
39	1350	17	10.45	14.75	13.81	0.2649	271.2	92.22	92.11	9.638 ± 0.011	60.68 ± 0.07	9.597 ± 0.009	25.38 ± 0.14
40	1550	15	10.36	14.64	15.30	0.2890	195.2	99.99	91.40	9.478 ± 0.042	59.68 ± 0.26	9.680 ± 0.035	27.94 ± 0.64

OR426 K-feldspar (20.2mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-2}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-4}
1	400	15	936.0	852.7	105.3	299.3	1.358	0.08763	5.505	51.59 ± 12.23	299.5 ± 65.4	1.068 ± 0.009	31.98 ± 0.43
2	400	22	643.4	518.8	145.6	209.8	1.160	0.1625	3.641	23.46 ± 7.16	142.4 ± 41.8	1.554 ± 0.011	32.61 ± 0.37
3	450	15	282.4	394.1	94.40	95.20	1.030	0.2289	0.3842	1.089 ± 200	6.862 ± 1260	3.541 ± 2.114	33.71 ± 23.94
4	450	22	184.8	173.8	103.0	59.16	1.070	0.2980	5.340	9.915 ± 3.139	61.54 ± 19.16	5.413 ± 0.049	32.02 ± 0.57
5	500	15	113.2	189.4	78.09	29.09	2.147	0.4365	23.92	27.17 ± 1.39	163.9 ± 8.0	8.839 ± 0.065	25.71 ± 0.38
6	500	22	41.59	54.90	69.05	11.95	2.540	0.6004	14.89	6.251 ± 0.654	39.05 ± 4.04	24.06 ± 0.14	28.75 ± 0.52
7	550	15	37.92	70.43	58.28	9.101	4.996	0.9228	28.86	11.00 ± 0.44	68.15 ± 2.65	26.39 ± 0.11	24.02 ± 0.38
8	550	22	14.46	26.05	51.94	3.179	5.931	1.306	34.43	5.034 ± 0.253	31.51 ± 1.57	69.33 ± 0.33	22.03 ± 0.58
9	600	15	25.02	40.83	50.77	5.959	10.33	1.972	29.39	7.381 ± 0.249	46.01 ± 1.53	40.02 ± 0.10	23.84 ± 0.33
10	600	22	9.445	18.25	52.21	1.472	10.85	2.672	53.14	5.066 ± 0.131	31.71 ± 0.81	106.2 ± 0.3	15.63 ± 0.46
11	650	15	20.92	32.38	54.59	4.772	17.35	3.792	32.37	6.791 ± 0.151	42.38 ± 0.93	47.87 ± 0.09	22.84 ± 0.24
12	650	22	8.832	14.97	45.30	0.8957	16.81	4.877	69.25	6.156 ± 0.081	38.46 ± 0.50	113.6 ± 0.3	10.16 ± 0.30
13	700	15	14.56	20.55	44.76	2.503	24.70	6.470	48.88	7.137 ± 0.105	44.51 ± 0.65	68.83 ± 0.15	17.22 ± 0.24
14	700	22	9.079	14.26	38.71	0.6578	23.22	7.968	77.91	7.105 ± 0.056	44.32 ± 0.34	110.5 ± 0.2	7.260 ± 0.195
15	750	15	11.71	16.67	40.09	1.341	30.61	9.943	65.73	7.718 ± 0.062	48.09 ± 0.38	85.63 ± 0.15	11.48 ± 0.17
16	750	22	9.200	13.56	31.02	0.4345	28.90	11.81	85.40	7.886 ± 0.047	49.12 ± 0.29	109.1 ± 0.2	4.730 ± 0.165
17	800	15	11.64	15.35	30.56	1.125	35.12	14.07	71.02	8.286 ± 0.064	51.57 ± 0.39	86.15 ± 0.19	9.683 ± 0.172
18	800	22	9.224	13.20	23.97	0.2705	33.06	16.21	90.71	8.394 ± 0.036	52.24 ± 0.22	108.8 ± 0.2	2.936 ± 0.115
19	825	16	9.748	13.71	23.38	0.4130	27.32	17.97	86.85	8.497 ± 0.052	52.87 ± 0.32	102.9 ± 0.2	4.244 ± 0.165

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.4x10^{-16}; m/e39 = 2.8x10^{-17}; m/e38 = 9.1x10^{-18}; m/e37 = 2.2x10^{-17}; m/e36 = 1.4x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 302.0±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-21-2004; analyzed: 05-22-2004)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0328; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00028; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00073)
[5] J-factor = 0.003548 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR426 K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$	$^{38}Ar/^{39}Ar^{1}$ $x10^{-3}$	$^{37}Ar/^{39}Ar^{1}$ $x10^{-3}$	$^{36}Ar/^{39}Ar^{1}$ $x10^{-2}$	$^{39}Ar_K{}^{2}$ (mol) $x10^{-15}$	$\Sigma\ ^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^{*}/^{39}Ar_K{}^{4}$ ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1 σ $x10^{-3}$	$^{36}Ar/^{40}Ar^{6}$ ± 1 σ $x10^{-4}$
20	850	15	10.41	14.23	22.47	0.6131	29.43	19.87	82.03	8.564 ± 0.041	53.28 ± 0.25	96.40 ± 0.15	5.904 ± 0.124
21	875	15	11.44	14.76	21.50	0.9244	32.55	21.97	75.66	8.679 ± 0.063	53.99 ± 0.39	87.65 ± 0.21	8.097 ± 0.168
22	900	16	12.48	15.49	21.49	1.274	37.84	24.41	69.44	8.681 ± 0.056	54.00 ± 0.34	80.36 ± 0.16	10.23 ± 0.14
23	925	15	13.00	16.15	21.02	1.458	34.81	26.66	66.48	8.662 ± 0.060	53.88 ± 0.37	77.10 ± 0.17	11.24 ± 0.14
24	950	15	13.60	16.49	22.10	1.668	38.19	29.12	63.39	8.635 ± 0.068	53.71 ± 0.42	73.73 ± 0.14	12.30 ± 0.16
25	975	16	10.36	14.36	20.70	0.6057	39.35	31.66	82.23	8.542 ± 0.041	53.15 ± 0.25	96.80 ± 0.21	5.858 ± 0.113
26	1000	15	9.334	13.56	20.78	0.2827	34.60	33.89	90.45	8.468 ± 0.037	52.69 ± 0.23	107.5 ± 0.2	3.033 ± 0.117
27	1025	15	9.228	14.07	21.89	0.2679	34.22	36.10	90.81	8.406 ± 0.036	52.31 ± 0.22	108.7 ± 0.2	2.906 ± 0.115
28	1050	16	9.351	14.66	23.07	0.3210	37.44	38.52	89.28	8.372 ± 0.036	52.10 ± 0.22	107.3 ± 0.2	3.438 ± 0.117
29	1075	15	9.535	16.76	24.22	0.3667	36.45	40.87	88.07	8.421 ± 0.036	52.40 ± 0.22	105.2 ± 0.2	3.852 ± 0.114
30	1100	16	9.732	16.73	26.24	0.4228	42.22	43.59	86.64	8.452 ± 0.036	52.59 ± 0.22	103.1 ± 0.2	4.352 ± 0.111
31	1100	25	9.988	15.78	24.93	0.4836	43.42	46.40	85.19	8.528 ± 0.033	53.06 ± 0.21	100.5 ± 0.2	4.851 ± 0.102
32	1100	45	10.40	16.31	25.32	0.5863	51.85	49.74	82.90	8.638 ± 0.033	53.73 ± 0.20	96.45 ± 0.17	5.648 ± 0.091
33	1100	90	11.00	16.84	26.52	0.7133	65.16	53.95	80.46	8.866 ± 0.037	55.13 ± 0.23	91.14 ± 0.18	6.495 ± 0.096
34	1100	180	11.66	17.76	29.22	0.8951	76.20	58.86	76.97	8.984 ± 0.039	55.86 ± 0.24	86.01 ± 0.18	7.691 ± 0.089
35	1100	420	12.37	18.42	31.33	1.079	102.0	65.44	73.89	9.152 ± 0.046	56.88 ± 0.28	81.05 ± 0.20	8.739 ± 0.099
36	1200	16	16.33	28.32	108.3	2.405	20.47	66.76	56.17	9.199 ± 0.106	57.17 ± 0.65	61.35 ± 0.14	14.74 ± 0.21
37	1240	15	19.23	32.74	105.3	3.410	67.54	71.12	47.43	9.133 ± 0.096	56.77 ± 0.59	52.08 ± 0.13	17.74 ± 0.15
38	1280	15	16.07	26.65	68.09	2.264	120.2	78.87	58.16	9.357 ± 0.066	58.14 ± 0.41	62.34 ± 0.17	14.10 ± 0.11
39	1350	16	13.31	21.86	47.45	1.249	239.7	94.34	71.99	9.596 ± 0.061	59.60 ± 0.37	75.29 ± 0.22	9.392 ± 0.123
40	400	16	12.19	20.12	34.25	0.8492	87.67	99.99	79.10	9.653 ± 0.051	59.94 ± 0.31	82.24 ± 0.24	6.976 ± 0.104

OR427 K-feldspar (21.1mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-2}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
1	400	15	780.8	697.1	135.6	194.8	1.641	0.06396	26.25	205.2 ± 9.8	986.8 ± 36.4	1.281 ± 0.012	249.5 ± 3.7
2	400	22	373.8	292.2	147.6	113.3	0.4476	0.08140	10.34	38.86 ± 11.58	233.0 ± 65.1	2.675 ± 0.055	303.2 ± 10.0
3	450	15	285.0	315.4	108.0	44.89	1.000	0.1204	53.28	152.4 ± 5.6	779.6 ± 23.3	3.509 ± 0.058	157.5 ± 4.5
4	450	22	85.21	87.19	97.70	22.06	0.9499	0.1574	23.20	19.99 ± 1.60	123.6 ± 9.6	11.74 ± 0.11	259.0 ± 6.1
5	500	15	121.2	146.8	73.39	16.38	2.401	0.2510	59.87	72.81 ± 1.35	414.5 ± 6.9	8.250 ± 0.073	135.1 ± 2.6
6	500	22	25.51	34.50	58.17	5.310	2.712	0.3567	37.89	9.790 ± 0.521	61.59 ± 3.22	39.25 ± 0.21	208.4 ± 6.8
7	550	15	43.46	55.91	49.29	6.114	6.272	0.6011	58.16	25.36 ± 0.38	155.4 ± 2.2	23.03 ± 0.09	140.8 ± 2.7
8	550	22	11.06	20.41	52.62	1.732	7.139	0.8793	52.88	5.917 ± 0.195	37.48 ± 1.23	90.67 ± 0.39	156.9 ± 5.9
9	600	15	18.77	27.86	78.93	2.635	13.58	1.409	58.18	10.96 ± 0.17	68.81 ± 1.03	53.37 ± 0.19	140.5 ± 2.8
10	600	22	7.955	15.91	92.81	0.8605	14.68	1.981	67.20	5.388 ± 0.090	34.16 ± 0.56	126.2 ± 0.4	108.3 ± 3.7
11	650	15	12.46	20.15	94.85	1.624	25.35	2.969	61.09	7.631 ± 0.073	48.19 ± 0.45	80.50 ± 0.14	130.5 ± 1.9
12	650	22	6.969	13.71	88.94	0.4011	27.24	4.030	82.24	5.759 ± 0.041	36.49 ± 0.26	144.2 ± 0.3	57.47 ± 1.86
13	700	15	8.865	15.32	89.90	0.6731	42.27	5.678	77.09	6.851 ± 0.037	43.32 ± 0.23	113.2 ± 0.2	75.93 ± 1.28
14	700	22	7.079	13.14	70.80	0.1982	42.39	7.330	91.07	6.467 ± 0.032	40.92 ± 0.20	141.9 ± 0.3	27.85 ± 1.38
15	750	15	8.039	13.48	53.93	0.2919	55.60	9.497	88.74	7.149 ± 0.030	45.18 ± 0.19	124.9 ± 0.3	36.27 ± 0.96
16	750	22	7.671	12.56	39.33	0.1211	52.54	11.54	94.74	7.284 ± 0.025	46.03 ± 0.16	130.9 ± 0.2	15.71 ± 0.95
17	800	15	8.427	12.98	41.15	0.1986	62.16	13.97	92.53	7.811 ± 0.028	49.31 ± 0.17	119.1 ± 0.2	23.53 ± 0.96
18	800	22	8.215	12.66	34.22	0.09200	57.51	16.21	96.14	7.914 ± 0.021	49.95 ± 0.13	122.2 ± 0.2	11.13 ± 0.65
19	825	16	8.442	12.83	32.22	0.09208	45.32	17.97	96.19	8.140 ± 0.022	51.36 ± 0.14	118.9 ± 0.2	10.84 ± 0.72

[1] Corrected for backgrounds (mean values in mol: m/e40 = 6.0x10^{-16}; m/e39 = 2.7x10^{-17}; m/e38 = 8.6x10^{-18}; m/e37 = 1.9x10^{-17}; m/e36 = 1.3x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 302.0±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-21-2004; analyzed: 06-06-2004)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0328; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00028; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00073)
[5] J-factor = 0.003548 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR427 K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-2}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-3}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-5}
20	850	15	8.709	12.72	29.83	0.1327	48.41	19.86	94.95	8.287 ± 0.026	52.27 ± 0.16	115.3 ± 0.2	15.20 ± 0.87
21	875	15	8.832	12.84	26.57	0.1295	53.80	21.96	95.14	8.419 ± 0.029	53.10 ± 0.18	113.6 ± 0.2	14.63 ± 0.84
22	900	16	8.978	12.87	23.47	0.1466	60.33	24.31	94.68	8.514 ± 0.021	53.69 ± 0.13	111.8 ± 0.2	16.31 ± 0.49
23	925	15	9.154	12.88	21.51	0.1834	55.79	26.48	93.58	8.582 ± 0.025	54.11 ± 0.15	109.6 ± 0.2	20.04 ± 0.75
24	950	15	9.311	13.04	20.03	0.2218	55.13	28.63	92.47	8.625 ± 0.031	54.37 ± 0.20	107.8 ± 0.2	23.84 ± 0.86
25	975	16	9.253	13.06	17.86	0.1943	57.80	30.88	93.30	8.648 ± 0.029	54.52 ± 0.18	108.5 ± 0.2	21.02 ± 0.77
26	1000	15	9.073	12.93	16.34	0.1186	52.50	32.93	95.61	8.691 ± 0.023	54.79 ± 0.14	110.6 ± 0.2	13.07 ± 0.64
27	1025	15	9.161	13.04	16.08	0.1483	53.01	35.00	94.70	8.691 ± 0.026	54.79 ± 0.16	109.6 ± 0.2	16.19 ± 0.73
28	1050	16	9.337	13.47	17.29	0.1925	58.88	37.29	93.42	8.737 ± 0.025	55.07 ± 0.15	107.5 ± 0.2	20.64 ± 0.75
29	1075	15	9.603	13.72	18.57	0.2472	57.71	39.54	91.92	8.841 ± 0.024	55.72 ± 0.15	104.5 ± 0.2	25.78 ± 0.64
30	1100	16	9.887	14.19	21.07	0.2880	66.68	42.14	90.95	9.005 ± 0.026	56.74 ± 0.16	101.5 ± 0.2	29.17 ± 0.65
31	1100	25	10.11	14.31	20.63	0.3193	69.00	44.83	90.24	9.131 ± 0.026	57.51 ± 0.16	99.28 ± 0.17	31.64 ± 0.68
32	1100	45	10.68	14.53	21.13	0.4341	80.89	47.98	87.60	9.362 ± 0.036	58.95 ± 0.22	93.96 ± 0.21	40.74 ± 0.87
33	1100	90	11.34	14.97	23.26	0.5800	106.4	52.13	84.51	9.595 ± 0.035	60.39 ± 0.22	88.44 ± 0.19	51.24 ± 0.78
34	1100	180	12.17	15.81	26.60	0.7589	119.9	56.80	81.25	9.900 ± 0.049	62.28 ± 0.30	82.37 ± 0.25	62.45 ± 0.89
35	1100	420	12.88	16.29	27.94	0.8887	138.4	62.19	79.30	10.22 ± 0.05	64.25 ± 0.31	77.86 ± 0.25	69.14 ± 0.79
36	1200	16	15.11	20.82	102.5	1.310	29.06	63.32	74.06	11.21 ± 0.07	70.36 ± 0.41	66.34 ± 0.11	86.73 ± 1.40
37	1240	15	15.29	21.25	91.10	1.150	64.11	65.82	77.54	11.87 ± 0.06	74.43 ± 0.34	65.52 ± 0.16	75.19 ± 0.93
38	1280	15	13.96	19.75	51.18	0.8746	152.0	71.75	81.22	11.34 ± 0.05	71.18 ± 0.32	71.82 ± 0.22	62.71 ± 0.73
39	1350	16	11.93	16.34	25.81	0.3645	313.7	83.97	90.64	10.83 ± 0.04	68.00 ± 0.23	84.02 ± 0.20	30.56 ± 0.71
40	1550	15	11.79	15.84	19.60	0.3568	411.2	99.99	90.73	10.71 ± 0.04	67.25 ± 0.23	85.04 ± 0.24	30.29 ± 0.52

OR428 K-feldspar (21.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1] x10^{-3}	$^{37}Ar/^{39}Ar$[1] x10^{-3}	$^{36}Ar/^{39}Ar$[1] x10^{-3}	$^{39}Ar_K$[2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10^{-4}
1	400	15	583.9	460.5	70.14	1729	2.818	0.1439	12.49	729.7 ± 83.8	415.4 ± 42.6	0.171 ± 0.002	29.61 ± 0.46
2	400	22	357.2	258.2	44.31	1151	0.8527	0.1874	4.745	170.0 ± 83.3	105.7 ± 50.3	0.280 ± 0.004	32.23 ± 0.77
3	450	15	160.0	151.3	34.66	376.1	2.001	0.2895	30.42	488.0 ± 30.1	288.1 ± 16.4	0.625 ± 0.008	23.51 ± 0.56
4	450	22	57.97	55.50	21.76	172.8	2.167	0.4002	11.77	68.74 ± 11.33	43.47 ± 7.08	1.726 ± 0.012	29.83 ± 0.65
5	500	15	49.41	58.47	21.98	101.8	5.621	0.6871	38.96	193.1 ± 3.0	119.6 ± 1.8	2.025 ± 0.009	20.61 ± 0.16
6	500	22	14.11	21.30	18.56	32.75	6.851	1.037	30.87	43.96 ± 2.62	27.92 ± 1.65	7.106 ± 0.041	23.27 ± 0.61
7	550	15	19.12	28.59	19.00	38.42	13.92	1.748	40.32	77.37 ± 2.11	48.86 ± 1.32	5.239 ± 0.018	20.12 ± 0.36
8	550	22	6.852	15.97	22.23	10.30	15.20	2.524	54.65	37.77 ± 0.85	24.02 ± 0.54	14.66 ± 0.04	15.10 ± 0.41
9	600	15	11.90	21.24	30.51	22.43	25.19	3.809	43.95	52.48 ± 1.09	33.28 ± 0.69	8.423 ± 0.017	18.88 ± 0.31
10	600	22	5.306	13.58	33.43	5.289	24.27	5.048	69.49	37.14 ± 0.55	23.61 ± 0.35	18.96 ± 0.05	10.01 ± 0.34
11	650	15	9.322	18.30	36.76	16.02	37.05	6.940	48.77	45.58 ± 0.59	28.94 ± 0.37	10.76 ± 0.02	17.24 ± 0.20
12	650	22	5.314	13.39	32.62	4.675	34.52	8.702	73.07	39.02 ± 0.50	24.81 ± 0.31	18.94 ± 0.04	8.835 ± 0.311
13	700	15	7.462	15.46	32.69	10.34	44.95	11.00	58.49	43.76 ± 0.57	27.79 ± 0.36	13.46 ± 0.03	13.91 ± 0.25
14	700	22	5.349	12.94	24.15	3.593	38.38	12.96	79.22	42.56 ± 0.37	27.04 ± 0.23	18.81 ± 0.03	6.747 ± 0.229
15	750	15	6.986	14.41	26.79	7.756	42.76	15.14	66.55	46.64 ± 0.55	29.61 ± 0.35	14.38 ± 0.04	11.14 ± 0.25
16	750	22	5.803	13.03	22.99	3.299	34.31	16.89	82.29	47.97 ± 0.46	30.45 ± 0.29	17.33 ± 0.04	5.706 ± 0.258
17	800	15	6.966	14.04	24.88	6.059	35.30	18.69	73.58	51.45 ± 0.51	32.63 ± 0.32	14.42 ± 0.03	8.729 ± 0.243
18	800	22	6.163	13.19	20.38	2.818	29.79	20.21	85.56	52.99 ± 0.42	33.60 ± 0.26	16.31 ± 0.04	4.589 ± 0.218
19	825	16	7.206	13.51	20.83	5.713	22.24	21.35	75.71	54.87 ± 0.74	34.78 ± 0.46	13.94 ± 0.04	7.956 ± 0.337

[1] Corrected for backgrounds (mean values in mol: m/e40 = 5.9x10^{-16}; m/e39 = 2.5x10^{-17}; m/e38 = 8.7x10^{-18}; m/e37 = 2.5x10^{-17}; m/e36 = 1.3x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 295.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 04-21-2004; analyzed: 06-12-2004)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static blank
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0328; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00028; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00073)
[5] J-factor = 0.003548 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

OR428 K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1]	$^{38}Ar/^{39}Ar$ [1] x10^{-3}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-3}	$^{39}Ar_K$ [2] (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-4}
20	850	15	9.456	13.39	43.84	0.3241	35.92	22.64	89.32	8.469 ± 0.048	53.44 ± 0.30	106.1 ± 0.4	3.427 ± 0.122
21	875	15	9.686	13.26	40.98	0.3343	38.48	24.55	89.27	8.669 ± 0.041	54.68 ± 0.25	103.6 ± 0.3	3.452 ± 0.115
22	900	18	9.908	13.39	37.74	0.3946	45.45	26.81	87.75	8.712 ± 0.026	54.95 ± 0.16	101.3 ± 0.2	3.985 ± 0.072
23	925	15	10.26	13.60	36.60	0.4990	39.05	28.74	85.14	8.753 ± 0.040	55.20 ± 0.25	97.81 ± 0.24	4.871 ± 0.104
24	950	15	10.43	13.86	31.99	0.5875	40.41	30.74	82.89	8.667 ± 0.047	54.67 ± 0.29	96.15 ± 0.20	5.641 ± 0.135
25	975	17	9.763	13.53	24.68	0.3454	44.90	32.97	89.04	8.712 ± 0.033	54.95 ± 0.21	102.8 ± 0.2	3.543 ± 0.098
26	1000	15	9.505	13.36	21.12	0.2532	40.91	35.00	91.58	8.726 ± 0.036	55.04 ± 0.22	105.6 ± 0.2	2.667 ± 0.102
27	1025	15	9.696	13.74	21.29	0.3051	43.31	37.15	90.18	8.763 ± 0.031	55.27 ± 0.19	103.5 ± 0.2	3.151 ± 0.091
28	1050	17	9.976	14.28	22.62	0.3843	51.29	39.69	88.15	8.810 ± 0.034	55.56 ± 0.21	100.6 ± 0.2	3.858 ± 0.093
29	1075	15	10.28	14.56	25.32	0.4692	48.67	42.10	86.05	8.858 ± 0.035	55.86 ± 0.22	97.63 ± 0.20	4.574 ± 0.092
30	1100	17	10.58	14.74	27.68	0.5438	58.95	45.03	84.40	8.942 ± 0.047	56.38 ± 0.29	94.82 ± 0.30	5.149 ± 0.109
31	1100	25	11.03	15.02	26.16	0.6405	59.83	47.99	82.45	9.107 ± 0.053	57.40 ± 0.33	90.93 ± 0.34	5.817 ± 0.105
32	1100	45	12.56	16.21	27.60	1.066	72.81	51.60	74.59	9.375 ± 0.050	59.07 ± 0.31	79.85 ± 0.21	8.507 ± 0.103
33	1100	90	14.75	17.77	30.59	1.685	95.77	56.35	65.97	9.743 ± 0.062	61.35 ± 0.39	67.93 ± 0.20	11.44 ± 0.11
34	1100	180	15.75	18.42	33.46	1.930	109.3	61.77	63.55	10.02 ± 0.07	63.05 ± 0.42	63.62 ± 0.21	12.27 ± 0.10
35	1100	420	17.29	19.51	34.32	2.340	127.8	68.11	59.79	10.34 ± 0.09	65.05 ± 0.54	57.96 ± 0.23	13.56 ± 0.12
36	1200	17	17.02	22.34	118.8	1.850	33.07	69.75	67.64	11.54 ± 0.08	72.41 ± 0.52	58.85 ± 0.12	10.87 ± 0.16
37	1240	15	18.15	24.63	114.6	2.175	57.76	72.61	64.39	11.70 ± 0.06	73.40 ± 0.38	55.20 ± 0.04	11.99 ± 0.11
38	1280	15	13.67	18.91	44.65	0.9430	227.1	83.87	79.31	10.85 ± 0.05	68.19 ± 0.30	73.35 ± 0.16	6.908 ± 0.098
39	1350	18	12.65	16.70	32.25	0.6343	272.0	97.36	84.85	10.74 ± 0.04	67.53 ± 0.24	79.27 ± 0.19	5.021 ± 0.064
40	1550	15	16.23	19.42	38.74	1.643	53.24	99.99	69.82	11.34 ± 0.06	71.22 ± 0.38	61.75 ± 0.14	10.14 ± 0.11

MRD35 K-feldspar (24.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^1$	$^{38}Ar/^{39}Ar^1$ x10^{-3}	$^{37}Ar/^{39}Ar^1$ x10^{-3}	$^{36}Ar/^{39}Ar^1$ x10^{-3}	$^{39}Ar_K{}^2$ (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^4$ ± 1σ x10^{-1}	Age^5 ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^6$ ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar^6$ ± 1 σ x10^{-5}
1	400	15	185.3	474.8	212.9	561.0	0.453	0.037	10.49	194.6 ± 49.2	225.3 ± 53.5	0.540 ± 0.01	302.9 ± 8.73
2	400	22	119.0	193.6	126.2	380.6	0.303	0.062	5.468	65.27 ± 42.3	78.75 ± 49.9	0.840 ± 0.01	319.8 ± 11.9
3	450	15	123.8	150.5	96.94	371.4	0.458	0.100	11.30	140.2 ± 30.8	165.1 ± 34.7	0.808 ± 0.01	300.1 ± 8.25
4	450	22	96.38	134.2	139.7	315.9	0.299	0.124	3.101	30.00 ± 40.5	36.63 ± 48.9	1.038 ± 0.02	327.9 ± 14.2
5	500	15	121.3	132.8	97.63	371.8	0.606	0.174	9.405	114.3 ± 24.4	135.7 ± 28.0	0.824 ± 0.01	306.5 ± 6.68
6	500	22	58.42	87.99	79.51	185.8	0.460	0.212	5.969	35.01 ± 24.6	42.67 ± 29.6	1.713 ± 0.03	318.1 ± 14.1
7	550	15	80.87	86.99	91.35	242.4	1.152	0.307	11.39	92.23 ± 17.1	110.3 ± 19.8	1.237 ± 0.01	299.8 ± 7.02
8	550	22	29.14	46.53	62.57	88.50	0.891	0.380	10.12	29.62 ± 12.3	36.16 ± 14.8	3.435 ± 0.03	304.0 ± 14.2
9	600	15	43.87	52.65	66.86	130.4	2.161	0.557	12.11	53.19 ± 6.91	64.43 ± 8.22	2.281 ± 0.02	297.4 ± 5.22
10	600	22	12.64	26.95	53.30	35.44	1.977	0.720	16.86	21.40 ± 5.54	26.21 ± 6.73	7.931 ± 0.05	281.0 ± 14.8
11	650	15	18.50	27.99	51.99	51.49	4.789	1.114	17.61	32.63 ± 2.73	39.80 ± 3.29	5.413 ± 0.02	278.6 ± 4.96
12	650	22	4.689	16.67	39.91	9.983	5.389	1.557	36.35	17.12 ± 1.61	20.99 ± 1.97	21.47 ± 0.09	214.1 ± 11.7
13	700	15	8.021	18.06	36.27	19.73	11.31	2.486	26.92	21.62 ± 1.39	26.46 ± 1.69	12.51 ± 0.07	246.9 ± 5.74
14	700	22	2.795	13.95	34.33	3.320	12.94	3.550	63.72	17.86 ± 0.61	21.89 ± 0.75	36.17 ± 0.07	119.8 ± 7.50
15	750	15	4.402	14.44	38.06	8.136	23.81	5.508	44.72	19.71 ± 0.52	24.14 ± 0.64	22.87 ± 0.14	185.9 ± 3.65
16	750	22	2.260	12.85	47.29	1.517	24.44	7.516	78.82	17.84 ± 0.43	21.87 ± 0.52	44.86 ± 0.39	67.49 ± 5.83
17	800	15	3.439	13.62	150.5	5.095	38.94	10.72	55.64	19.15 ± 0.40	23.47 ± 0.48	29.33 ± 0.05	148.3 ± 3.92
18	800	22	2.115	12.40	329.7	1.091	37.71	13.82	84.45	17.89 ± 0.20	21.93 ± 0.25	47.95 ± 0.07	48.06 ± 3.26
19	825	19	2.305	12.47	334.7	1.676	38.06	16.95	78.26	18.07 ± 0.28	22.15 ± 0.34	43.95 ± 0.30	69.67 ± 3.56

[1] Corrected for backgrounds (mean values in (mol): m/e40 = 7.6x10^{-17}; m/e39 = 4.2x10^{-17}; m/e38 = 1.7x10^{-17}; m/e37 = 2.8x10^{-17}; m/e 36 = 2.7x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5 ± 0.5), abundance sensitivity (5 ppm), and radioactive decay (Irradiated: 05-03-2002; Analyzed: 08-11-2002)
[2] Normalized to 100% delivery to mass spectrometer
[3] Includes static line blank
[4] Corrected for atmospheric argon and nucleogenic interferences ($^{40}Ar/^{39}Ar_K$ = 0.306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000271; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000772)
[5] Assumes trapped argon is atmospheric. J-factor = 0.006836 (assumes Fish Canyon sanidine = 27.8 Ma)
[6] Corrected for static line blank and nucleogenic interferences

MRD35 K-feldspar (continued)

	T	Time	$^{40}Ar/^{39}Ar^{1}$	$^{38}Ar/^{39}Ar^{1}$	$^{37}Ar/^{39}Ar^{1}$	$^{36}Ar/^{39}Ar^{1}$	$^{39}Ar_K{}^{2}$	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^{*3}$	$^{40}Ar^*/^{39}Ar_K{}^{4}$	Age[5]	$^{39}Ar_K/^{40}Ar^{6}$	$^{36}Ar/^{40}Ar^{6}$
	(°C)	(min.)					(mol)	(%)	(%)	± 1σ	± 1 σ (Ma)	± 1 σ	± 1 σ
				$x10^{-3}$	$x10^{-3}$	$x10^{-3}$	$x10^{-15}$			$x10^{-1}$		$x10^{-2}$	$x10^{-5}$
20	850	15	2.883	13.03	281.3	3.343	39.87	20.22	65.39	18.87 ± 0.37	23.12 ± 0.46	35.05 ± 0.19	114.5 ± 4.10
21	875	15	2.844	12.94	231.1	3.215	49.07	24.26	66.12	18.82 ± 0.26	23.07 ± 0.32	35.54 ± 0.04	112.0 ± 3.16
22	900	19	2.389	12.61	185.5	1.733	62.01	29.35	77.85	18.62 ± 0.17	22.81 ± 0.21	42.39 ± 0.15	71.34 ± 2.18
23	925	15	2.291	12.55	127.9	1.468	52.62	33.68	80.10	18.37 ± 0.20	22.52 ± 0.25	44.23 ± 0.13	63.42 ± 2.86
24	950	15	2.170	12.44	65.95	1.010	55.88	38.27	85.00	18.46 ± 0.20	22.63 ± 0.24	46.74 ± 0.17	46.38 ± 2.85
25	975	19	2.073	12.29	22.37	0.671	65.49	43.65	88.98	18.46 ± 0.14	22.62 ± 0.16	48.96 ± 0.19	32.55 ± 1.83
26	1000	15	2.059	12.50	9.803	0.674	53.03	48.01	88.79	18.30 ± 0.13	22.43 ± 0.15	49.30 ± 0.07	33.11 ± 2.05
27	1025	15	2.064	12.37	7.581	0.614	51.99	52.29	89.67	18.53 ± 0.15	22.70 ± 0.19	49.18 ± 0.06	30.08 ± 2.54
28	1050	19	2.040	12.48	6.517	0.545	57.42	57.01	90.55	18.49 ± 0.14	22.66 ± 0.17	49.77 ± 0.07	27.05 ± 2.32
29	1075	15	2.070	12.48	5.722	0.522	42.49	60.50	90.99	18.85 ± 0.19	23.10 ± 0.24	49.04 ± 0.12	25.50 ± 3.10
30	1100	19	2.080	12.34	5.685	0.546	47.85	64.43	90.70	18.88 ± 0.16	23.14 ± 0.19	48.79 ± 0.12	26.57 ± 2.49
31	1100	25	2.099	12.32	5.713	0.578	38.14	67.57	90.31	18.98 ± 0.20	23.25 ± 0.24	48.36 ± 0.08	27.87 ± 3.25
32	1100	45	2.155	12.24	4.376	0.611	37.82	70.68	90.10	19.44 ± 0.18	23.82 ± 0.22	47.07 ± 0.06	28.73 ± 2.89
33	1100	90	2.275	12.43	4.103	0.845	33.76	73.45	87.57	19.95 ± 0.21	24.44 ± 0.25	44.55 ± 0.08	37.61 ± 3.07
34	1100	120	2.499	12.51	3.833	1.324	22.92	75.34	82.97	20.77 ± 0.36	25.43 ± 0.44	40.52 ± 0.07	53.61 ± 4.95
35	1100	240	2.807	12.53	4.229	1.906	16.05	76.66	78.68	22.14 ± 0.50	27.10 ± 0.61	36.02 ± 0.09	68.59 ± 6.02
36	1100	480	3.273	12.91	2.802	2.685	8.566	77.36	74.55	24.49 ± 0.85	29.96 ± 1.03	30.84 ± 0.10	82.79 ± 8.80
37	1200	19	3.345	12.93	18.47	3.805	7.976	78.01	65.26	21.91 ± 0.82	26.82 ± 1.00	30.17 ± 0.10	114.7 ± 8.36
38	1233	15	3.004	12.58	22.26	2.383	9.804	78.82	75.33	22.71 ± 0.78	27.79 ± 0.94	33.63 ± 0.08	79.95 ± 8.79
39	1266	15	2.975	12.94	21.24	2.621	14.38	80.00	72.82	21.72 ± 0.56	26.59 ± 0.68	33.96 ± 0.08	88.82 ± 6.34
40	1300	19	2.926	12.78	18.85	2.333	23.12	81.90	75.33	22.08 ± 0.42	27.02 ± 0.51	34.54 ± 0.06	80.40 ± 4.90
41	1350	15	3.984	13.60	25.08	6.155	33.80	84.68	53.59	21.37 ± 0.38	26.16 ± 0.46	25.29 ± 0.05	155.5 ± 3.19
42	1650	18	4.424	14.08	8.032	7.815	113.8	94.03	47.12	20.85 ± 0.24	25.53 ± 0.29	22.76 ± 0.04	177.8 ± 1.77
43	1650	15	9.029	16.99	7.660	23.17	72.60	99.99	23.83	21.52 ± 0.53	26.35 ± 0.65	11.11 ± 0.03	257.5 ± 1.93

UG825A K-feldspar (24.4mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$ [1] x10[1]	$^{38}Ar/^{39}Ar$ [1] x10^{-2}	$^{37}Ar/^{39}Ar$ [1] x10^{-3}	$^{36}Ar/^{39}Ar$ [1] x10^{-1}	$^{39}Ar_K$ [2] (mol) x10^{-14}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$ [3] (%)	$^{40}Ar^*/^{39}Ar_K$ [4] ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$ [6] ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar$ [6] ± 1 σ x10^{-5}
1	400	15	6.287	10.97	44.56	1.732	0.4791	0.09565	18.53	116.6 ± 5.5	138.0 ± 6.2	1.591 ± 0.005	275.6 ± 2.9
2	400	22	1.100	3.119	5.427	0.3007	0.1788	0.1313	18.78	20.80 ± 5.50	25.40 ± 6.67	9.120 ± 0.062	274.2 ± 16.9
3	450	15	1.196	2.454	23.73	0.2485	0.6110	0.2533	38.32	45.94 ± 2.35	55.62 ± 2.80	8.379 ± 0.034	208.2 ± 6.6
4	450	22	0.4210	1.725	20.61	0.07047	0.5955	0.3722	49.58	20.99 ± 1.40	25.63 ± 1.70	23.93 ± 0.10	168.5 ± 11.3
5	500	15	0.4449	1.493	9.767	0.06353	2.088	0.7892	57.05	25.42 ± 0.59	30.99 ± 0.72	22.63 ± 0.05	143.7 ± 4.5
6	500	22	0.2600	1.328	10.61	0.01870	2.109	1.210	77.41	20.18 ± 0.40	24.64 ± 0.48	38.92 ± 0.07	72.66 ± 5.17
7	550	15	0.2822	1.321	15.64	0.02267	5.449	2.298	75.15	21.22 ± 0.19	25.91 ± 0.24	35.83 ± 0.04	81.09 ± 2.32
8	550	22	0.2311	1.256	27.28	0.007618	5.003	3.297	88.92	20.57 ± 0.17	25.12 ± 0.21	43.86 ± 0.07	33.09 ± 2.46
9	600	15	0.2485	1.269	49.08	0.01202	10.14	5.322	84.58	21.03 ± 0.14	25.68 ± 0.17	40.74 ± 0.05	48.45 ± 1.85
10	600	22	0.2218	1.239	38.86	0.004193	8.660	7.051	93.11	20.67 ± 0.09	25.24 ± 0.11	45.71 ± 0.06	18.68 ± 1.35
11	650	15	0.2324	1.250	22.95	0.006766	14.38	9.923	90.12	20.95 ± 0.08	25.58 ± 0.10	43.61 ± 0.06	29.24 ± 1.07
12	650	22	0.2192	1.245	8.854	0.002895	11.92	12.30	94.68	20.76 ± 0.07	25.35 ± 0.08	46.27 ± 0.04	13.28 ± 1.00
13	700	15	0.2244	1.245	4.143	0.003855	17.13	15.72	93.54	20.99 ± 0.07	25.64 ± 0.08	45.19 ± 0.06	17.37 ± 0.93
14	700	22	0.2194	1.230	3.205	0.002324	13.86	18.49	95.44	20.95 ± 0.07	25.58 ± 0.09	46.22 ± 0.06	10.70 ± 1.05
15	750	15	0.2210	1.233	3.074	0.002000	17.01	21.89	95.92	21.20 ± 0.05	25.89 ± 0.06	45.89 ± 0.06	9.141 ± 0.692
16	750	22	0.2198	1.232	2.360	0.001814	13.58	24.60	96.13	21.14 ± 0.07	25.81 ± 0.08	46.13 ± 0.05	8.341 ± 0.952
17	800	15	0.2211	1.242	3.147	0.001954	15.44	27.68	95.98	21.23 ± 0.07	25.92 ± 0.09	45.86 ± 0.06	8.922 ± 1.009
18	800	22	0.2215	1.229	2.446	0.001625	12.79	30.24	96.41	21.37 ± 0.07	26.09 ± 0.09	45.77 ± 0.05	7.409 ± 1.088
19	825	19	0.2251	1.243	2.650	0.002302	11.44	32.52	95.58	21.53 ± 0.08	26.28 ± 0.10	45.04 ± 0.06	10.33 ± 1.20

[1] Corrected for backgrounds (mean values in mol: m/e40 = 9.2 x10^{-17}; m/e39 = 4.6 x10^{-17}; m/e38 = 1.4 x10^{-17}; m/e37 = 2.6 x10^{-17}; m/e36 = 2.4 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-03-2002; analyzed: 09-21-2002)

[2] Normalized to 100% delivery to mass spectrometer

[3] Includes static line blank

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0306; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00027; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00077)

[5] J-factor = 0.006817 (assumes Fish Canyon sanidine = 27.8 Ma)

[6] Corrected for static line blank and nucleogenic interferences

UG825A K-feldspar (continued)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$ x10^{1}	$^{38}Ar/^{39}Ar^{1}$ x10^{-2}	$^{37}Ar/^{39}Ar^{1}$ x10^{-3}	$^{36}Ar/^{39}Ar^{1}$ x10^{-1}	$^{39}Ar_K{}^{2}$ (mol) x10^{-14}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^{4}$ ± 1σ x10^{-1}	Age^{5} ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar^{6}$ ± 1 σ x10^{-5}
20	850	15	0.2255	1.245	4.280	0.002528	9.984	34.51	95.29	21.50 ± 0.08	26.25 ± 0.10	44.95 ± 0.06	11.31 ± 1.21
21	875	15	0.2303	1.238	4.312	0.002643	10.78	36.67	95.24	21.95 ± 0.09	26.79 ± 0.12	44.00 ± 0.06	11.58 ± 1.34
22	900	19	0.2351	1.242	5.189	0.003094	13.29	39.32	94.78	22.29 ± 0.07	27.21 ± 0.08	43.10 ± 0.04	13.28 ± 0.95
23	925	15	0.2382	1.244	9.638	0.003405	10.59	41.43	94.47	22.52 ± 0.09	27.48 ± 0.11	42.52 ± 0.05	14.37 ± 1.22
24	950	15	0.2376	1.240	8.858	0.003552	10.39	43.51	94.27	22.41 ± 0.10	27.36 ± 0.12	42.63 ± 0.05	15.04 ± 1.34
25	975	19	0.2374	1.243	6.687	0.003880	11.50	45.80	93.86	22.29 ± 0.09	27.20 ± 0.11	42.68 ± 0.05	16.48 ± 1.22
26	1000	15	0.2399	1.249	8.040	0.005102	8.439	47.49	92.41	22.19 ± 0.11	27.08 ± 0.13	42.22 ± 0.06	21.45 ± 1.52
27	1025	15	0.2404	1.250	8.441	0.005274	8.390	49.16	92.21	22.18 ± 0.11	27.08 ± 0.14	42.13 ± 0.05	22.13 ± 1.59
28	1050	19	0.2425	1.261	10.35	0.005829	10.25	51.21	91.62	22.23 ± 0.10	27.13 ± 0.12	41.77 ± 0.05	24.23 ± 1.34
29	1075	15	0.2437	1.250	12.04	0.005808	8.656	52.94	91.68	22.36 ± 0.14	27.29 ± 0.17	41.55 ± 0.04	24.00 ± 1.92
30	1100	19	0.2474	1.251	12.35	0.006850	11.04	55.15	90.58	22.42 ± 0.11	27.36 ± 0.14	40.93 ± 0.05	27.90 ± 1.53
31	1100	25	0.2590	1.263	10.02	0.01052	10.11	57.16	86.80	22.49 ± 0.14	27.45 ± 0.17	39.07 ± 0.04	40.98 ± 1.82
32	1100	45	0.2538	1.254	9.309	0.008538	12.57	59.67	88.84	22.55 ± 0.09	27.53 ± 0.11	39.89 ± 0.05	33.96 ± 1.19
33	1100	90	0.2617	1.264	8.714	0.01076	16.49	62.96	86.67	22.69 ± 0.10	27.69 ± 0.12	38.67 ± 0.07	41.53 ± 1.16
34	1100	120	0.2719	1.270	8.045	0.01374	14.46	65.85	83.93	22.83 ± 0.09	27.86 ± 0.11	37.20 ± 0.06	51.04 ± 1.00
35	1100	240	0.2886	1.273	8.021	0.01933	18.62	69.57	79.15	22.84 ± 0.12	27.88 ± 0.14	35.03 ± 0.07	67.63 ± 1.21
36	1100	480	0.3167	1.289	7.319	0.02817	21.96	73.95	72.76	23.05 ± 0.12	28.12 ± 0.14	31.88 ± 0.07	89.75 ± 1.05
37	1200	19	0.2896	1.269	15.58	0.01993	9.590	75.87	78.61	22.78 ± 0.14	27.79 ± 0.17	34.90 ± 0.04	69.42 ± 1.59
38	1233	15	0.2937	1.275	13.38	0.01970	16.21	79.10	79.15	23.26 ± 0.12	28.38 ± 0.15	34.40 ± 0.05	67.66 ± 1.34
39	1266	15	0.2812	1.273	7.301	0.01570	39.17	86.93	82.42	23.18 ± 0.09	28.28 ± 0.11	35.96 ± 0.08	56.37 ± 0.88
40	1300	18	0.2711	1.256	5.251	0.01261	57.95	98.50	85.13	23.08 ± 0.09	28.16 ± 0.11	37.31 ± 0.10	47.01 ± 0.70
41	1350	15	0.3292	1.274	17.36	0.03048	7.100	99.91	71.70	23.62 ± 0.23	28.81 ± 0.28	30.67 ± 0.04	93.34 ± 2.35
42	1650	15	32.68	22.38	255.4	10.73	0.4034	99.99	2.924	95.57 ± 29.78	113.9 ± 34.4	0.306 ± 0.002	328.5 ± 3.0
43	1650	18	687.8	439.4	604.2	227.6	0.01687	99.99	2.203	1516 ± 6326	1281 ± 3825	0.015 ± 0.001	331.0 ± 30.8
44	400	15	670.3	426.5	642.4	222.1	0.01367	99.99	2.108	1414 ± 4948	1218 ± 3098	0.015 ± 0.001	331.3 ± 24.7

UG1504 K-feldspar (23.0mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar^{1}$ x10^{1}	$^{38}Ar/^{39}Ar^{1}$ x10^{-2}	$^{37}Ar/^{39}Ar^{1}$ x10^{-3}	$^{36}Ar/^{39}Ar^{1}$ x10^{-1}	$^{39}Ar_K{}^{2}$ (mol) x10^{-15}	Σ $^{39}Ar_K$ (%)	$^{40}Ar^{*3}$ (%)	$^{40}Ar^*/^{39}Ar_K{}^{4}$ ± 1σ x10^{-1}	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar^{6}$ ± 1 σ x10^{-2}	$^{36}Ar/^{40}Ar^{6}$ ± 1 σ x10^{-5}
1	400	15	34.19	32.60	7.878	10.45	2.447	0.08064	9.649	330.0 ± 36.8	202.7 ± 21.4	0.293 ± 0.002	305.7 ± 3.5
2	400	22	16.76	12.93	-	5.391	0.7701	0.1060	4.920	82.56 ± 41.03	52.90 ± 25.91	0.597 ± 0.008	321.7 ± 8.2
3	450	15	7.049	5.303	-	1.614	2.356	0.1837	32.27	227.7 ± 9.0	142.3 ± 5.4	1.419 ± 0.007	229.1 ± 4.2
4	450	22	2.140	2.407	0.1962	0.5642	2.391	0.2625	21.90	47.02 ± 5.84	30.32 ± 3.73	4.678 ± 0.023	264.0 ± 9.2
5	500	15	2.102	2.287	-	0.3968	8.471	0.5417	44.07	92.73 ± 2.10	59.30 ± 1.32	4.762 ± 0.014	189.0 ± 3.3
6	500	22	0.5649	1.338	2.397	0.06382	10.28	0.8806	65.99	37.38 ± 1.37	24.14 ± 0.88	17.78 ± 0.29	113.5 ± 6.4
7	550	15	0.6916	1.444	0.4536	0.07327	27.33	1.781	68.27	47.26 ± 0.56	30.47 ± 0.36	14.51 ± 0.03	106.3 ± 2.7
8	550	22	0.4341	1.258	2.484	0.01597	28.14	2.709	88.44	38.44 ± 0.37	24.82 ± 0.23	23.17 ± 0.04	36.98 ± 2.81
9	600	15	0.5094	1.307	8.589	0.03045	53.32	4.466	81.81	41.70 ± 0.28	26.91 ± 0.18	19.73 ± 0.03	60.03 ± 1.79
10	600	22	0.4170	1.254	5.016	0.007200	47.86	6.044	94.23	39.33 ± 0.20	25.39 ± 0.13	24.12 ± 0.04	17.34 ± 1.54
11	650	15	0.4851	1.286	3.561	0.02393	76.16	8.554	84.88	41.19 ± 0.22	26.59 ± 0.14	20.72 ± 0.03	49.56 ± 1.45
12	650	22	0.4141	1.253	2.802	0.005677	61.75	10.59	95.29	39.48 ± 0.15	25.49 ± 0.10	24.30 ± 0.03	13.78 ± 1.15
13	700	15	0.4456	1.266	3.825	0.01376	79.10	13.20	90.28	40.25 ± 0.14	25.98 ± 0.09	22.57 ± 0.03	31.02 ± 0.97
14	700	22	0.4143	1.266	2.143	0.004425	64.00	15.31	96.18	39.88 ± 0.18	25.74 ± 0.12	24.28 ± 0.05	10.73 ± 1.34
15	750	15	0.4284	1.264	3.128	0.008014	74.52	17.76	93.85	40.23 ± 0.17	25.97 ± 0.11	23.48 ± 0.03	18.80 ± 1.26
16	750	22	0.4159	1.252	3.714	0.004405	58.28	19.68	96.21	40.04 ± 0.18	25.85 ± 0.12	24.19 ± 0.04	10.63 ± 1.36
17	800	15	0.4225	1.251	3.549	0.005177	61.68	21.72	95.73	40.47 ± 0.17	26.12 ± 0.11	23.81 ± 0.03	12.31 ± 1.31
18	800	22	0.4198	1.254	4.293	0.005194	49.89	23.36	95.68	40.20 ± 0.19	25.95 ± 0.12	23.97 ± 0.03	12.42 ± 1.46
19	825	18	0.4224	1.251	3.565	0.005234	40.55	24.70	95.66	40.45 ± 0.24	26.11 ± 0.15	23.81 ± 0.04	12.44 ± 1.86

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.1 x10^{-16}; m/e39 = 5.9 x10^{-17}; m/e38 = 2.4 x10^{-17}; m/e37 = 4.2 x10^{-17}; m/e36 = 3.8 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 12-04-2001; analyzed: 05-04-2002)
[2] Normalized to 100% delivery to mass spectrometer (Ar sensitivity = 8.0 x10^{-17} mol/mV),
[3] Static furnace blank is essentially atmospheric and has not been subtracted
[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0250; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00025; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00070)
[5] J-factor = 0.003600 (assumes K-Ar age of Fish Canyon sanidine is 27.8 Ma)
[6] Corrected for nucleogenic interferences

UG1504 K-feldspar (continued)

	T	Time	$^{40}Ar/^{39}Ar^{1}$	$^{38}Ar/^{39}Ar^{1}$	$^{37}Ar/^{39}Ar^{1}$	$^{36}Ar/^{39}Ar^{1}$	$^{39}Ar_K{}^{2}$	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^{*3}$	$^{40}Ar^*/^{39}Ar_K{}^{4}$	Age[5]	$^{39}Ar_K/^{40}Ar^{6}$	$^{36}Ar/^{40}Ar^{6}$
	(°C)	(min.)					(mol)	(%)	(%)	± 1σ	± 1 σ (Ma)	± 1 σ	± 1 σ
			$x10^{1}$	$x10^{-2}$	$x10^{-3}$	$x10^{-1}$	$x10^{-14}$			$x10^{-1}$		$x10^{-2}$	$x10^{-5}$
20	850	15	0.4278	1.232	4.775	0.007041	37.33	25.93	94.46	40.45 ± 0.20	26.11 ± 0.13	23.51 ± 0.04	16.53 ± 1.47
21	875	15	0.4268	1.260	5.608	0.006413	40.79	27.27	94.89	40.54 ± 0.24	26.17 ± 0.15	23.57 ± 0.03	15.08 ± 1.83
22	900	18	0.4285	1.269	4.193	0.005859	49.98	28.92	95.31	40.88 ± 0.20	26.38 ± 0.13	23.47 ± 0.04	13.73 ± 1.49
23	925	15	0.4298	1.239	2.645	0.005701	46.51	30.45	95.42	41.05 ± 0.20	26.49 ± 0.13	23.40 ± 0.04	13.33 ± 1.53
24	950	15	0.4331	1.245	3.657	0.005925	52.06	32.17	95.32	41.31 ± 0.20	26.66 ± 0.13	23.22 ± 0.03	13.74 ± 1.52
25	975	18	0.4400	1.254	3.822	0.006706	64.30	34.29	94.88	41.77 ± 0.16	26.95 ± 0.11	22.86 ± 0.04	15.31 ± 1.13
26	1000	15	0.4435	1.263	3.466	0.006881	53.57	36.05	94.79	42.07 ± 0.20	27.15 ± 0.13	22.67 ± 0.03	15.58 ± 1.49
27	1025	15	0.4530	1.275	2.826	0.009440	52.94	37.80	93.23	42.26 ± 0.22	27.27 ± 0.14	22.20 ± 0.03	20.94 ± 1.53
28	1050	18	0.4637	1.275	3.955	0.01127	58.54	39.73	92.23	42.79 ± 0.21	27.61 ± 0.13	21.68 ± 0.03	24.42 ± 1.44
29	1075	15	0.4794	1.282	5.020	0.01553	48.53	41.32	89.85	43.10 ± 0.27	27.81 ± 0.17	20.97 ± 0.03	32.54 ± 1.88
30	1100	18	0.4956	1.313	7.755	0.01953	58.12	43.24	87.81	43.55 ± 0.22	28.09 ± 0.14	20.28 ± 0.04	39.56 ± 1.40
31	1100	25	0.5032	1.307	8.336	0.02174	56.98	45.12	86.70	43.65 ± 0.23	28.16 ± 0.15	19.97 ± 0.02	43.37 ± 1.53
32	1100	45	0.5151	1.310	7.006	0.02372	70.59	47.44	85.88	44.26 ± 0.20	28.55 ± 0.13	19.51 ± 0.03	46.23 ± 1.27
33	1100	90	0.5220	1.327	8.238	0.02466	93.21	50.52	85.54	44.67 ± 0.17	28.81 ± 0.11	19.25 ± 0.03	47.43 ± 0.93
34	1100	120	0.5264	1.325	5.672	0.02476	83.17	53.26	85.60	45.08 ± 0.26	29.08 ± 0.16	19.09 ± 0.04	47.23 ± 1.50
35	1100	240	0.5424	1.332	4.349	0.02841	110.5	56.90	84.04	45.59 ± 0.24	29.40 ± 0.16	18.52 ± 0.04	52.61 ± 1.32
36	1200	18	0.5751	1.361	16.80	0.03850	43.21	58.32	79.75	45.90 ± 0.31	29.60 ± 0.20	17.46 ± 0.03	67.16 ± 1.72
37	1233	15	0.5682	1.343	9.171	0.03489	75.46	60.81	81.39	46.27 ± 0.23	29.83 ± 0.14	17.68 ± 0.03	61.64 ± 1.20
38	1266	15	0.5735	1.349	3.040	0.03388	213.1	67.83	82.09	47.09 ± 0.23	30.36 ± 0.15	17.51 ± 0.05	59.33 ± 0.99
39	1300	17	0.5588	1.327	1.458	0.02881	624.4	88.41	84.30	47.11 ± 0.21	30.38 ± 0.13	17.98 ± 0.04	51.78 ± 0.99
40	1350	15	0.5465	1.297	1.909	0.02384	325.3	99.13	86.64	47.36 ± 0.20	30.53 ± 0.13	18.38 ± 0.06	43.81 ± 0.63
41	1500	15	0.5939	1.312	7.155	0.03405	25.53	99.97	82.55	49.08 ± 0.49	31.63 ± 0.31	16.91 ± 0.04	57.55 ± 2.66
42	1650	18	5.344	4.038	-	1.594	0.7891	99.99	11.74	62.98 ± 21.29	40.49 ± 13.53	1.872 ± 0.025	298.5 ± 13.3
43	1650	18	512.4	346.2	2724	173.4	0.01086	99.99	0.01095	5 ± 27114	3 ± 175930	0.020 ± 0.007	338.4 ± 178.7
44	1650	18	1549	946.6	-	518.2	0.00498	99.99	1.132	1750 ± 193405	882 ± 77119	0.007 ± 0.006	334.6 ± 422.1

UG1508 K-feldspar (23.7mg)

	T (°C)	Time (min.)	$^{40}Ar/^{39}Ar$[1] x10[1]	$^{38}Ar/^{39}Ar$[1] x10[-2]	$^{37}Ar/^{39}Ar$[1] x10[-3]	$^{36}Ar/^{39}Ar$[1] x10[-1]	$^{39}Ar_K$[2] (mol) x10[-15]	Σ $^{39}Ar_K$ (%)	$^{40}Ar^*$[3] (%)	$^{40}Ar^*/^{39}Ar_K$[4] ± 1σ x10[-1]	Age[5] ± 1 σ (Ma)	$^{39}Ar_K/^{40}Ar$[6] ± 1 σ x10[-2]	$^{36}Ar/^{40}Ar$[6] ± 1 σ x10[-5]
1	400	15	36.28	30.65	14.24	10.58	2.539	0.09309	13.78	500.0 ± 42.6	298.6 ± 23.4	0.276 ± 0.002	291.8 ± 3.7
2	400	22	11.27	8.865	-	3.584	0.6346	0.1164	6.024	68.06 ± 37.31	43.67 ± 23.65	0.887 ± 0.015	318.0 ± 11.0
3	450	15	6.860	4.895	19.23	1.533	1.916	0.1866	33.89	232.8 ± 11.0	145.2 ± 6.6	1.458 ± 0.014	223.5 ± 4.9
4	450	22	1.956	2.188	-	0.4930	1.853	0.2545	25.30	49.71 ± 6.58	32.00 ± 4.20	5.118 ± 0.034	252.3 ± 11.3
5	500	15	1.987	1.973	-	0.3605	6.098	0.4781	46.21	91.95 ± 2.58	58.75 ± 1.62	5.038 ± 0.018	181.6 ± 4.3
6	500	22	0.6175	1.351	1.707	0.07205	7.101	0.7384	64.89	40.21 ± 1.34	25.93 ± 0.86	16.26 ± 0.05	117.2 ± 7.3
7	550	15	0.6999	1.417	5.157	0.07326	19.40	1.450	68.64	48.09 ± 0.81	30.97 ± 0.52	14.34 ± 0.03	105.0 ± 3.9
8	550	22	0.4530	1.264	7.133	0.02116	19.86	2.177	85.51	38.81 ± 0.41	25.03 ± 0.26	22.20 ± 0.04	46.93 ± 3.02
9	600	15	0.5113	1.291	5.915	0.02947	39.65	3.631	82.42	42.17 ± 0.32	27.18 ± 0.21	19.66 ± 0.04	57.90 ± 2.05
10	600	22	0.4233	1.233	2.687	0.008144	37.26	4.997	93.64	39.68 ± 0.28	25.59 ± 0.18	23.76 ± 0.04	19.34 ± 2.17
11	650	15	0.4730	1.291	4.875	0.02053	66.18	7.423	86.61	40.99 ± 0.20	26.43 ± 0.12	21.25 ± 0.03	43.61 ± 1.33
12	650	22	0.4138	1.262	4.875	0.004822	60.18	9.629	95.90	39.71 ± 0.22	25.61 ± 0.14	24.31 ± 0.04	11.69 ± 1.76
13	700	15	0.4353	1.264	6.249	0.01010	91.98	13.00	92.54	40.30 ± 0.14	25.99 ± 0.09	23.11 ± 0.03	23.30 ± 0.98
14	700	22	0.4128	1.250	4.711	0.003255	81.01	15.97	97.03	40.07 ± 0.14	25.84 ± 0.09	24.38 ± 0.03	7.906 ± 1.097
15	750	15	0.4199	1.250	5.601	0.005087	102.7	19.73	95.80	40.24 ± 0.13	25.95 ± 0.08	23.96 ± 0.04	12.15 ± 0.91
16	750	22	0.4146	1.238	5.113	0.003134	87.61	22.95	97.13	40.29 ± 0.12	25.98 ± 0.08	24.26 ± 0.04	7.573 ± 0.845
17	800	15	0.4196	1.246	6.565	0.003825	100.7	26.64	96.69	40.58 ± 0.13	26.17 ± 0.08	23.98 ± 0.04	9.131 ± 0.897
18	800	22	0.4180	1.244	4.744	0.003221	86.73	29.82	97.09	40.60 ± 0.13	26.18 ± 0.08	24.07 ± 0.04	7.724 ± 0.880
19	825	18	0.4186	1.258	4.874	0.003577	73.37	32.51	96.84	40.55 ± 0.16	26.15 ± 0.10	24.03 ± 0.03	8.569 ± 1.233

[1] Corrected for backgrounds (mean values in mol: m/e40 = 1.0 x10^{-16}; m/e39 = 5.8 x10^{-17}; m/e38 = 2.4 x10^{-17}; m/e37 = 4.2 x10^{-17}; m/e36 = 3.8 x10^{-17}), mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 293.5±0.5), abundance sensitivity (5 ppm), and radioactive decay (irradiated: 12-04-2001; analyzed: 05-05-2002)

[2] Normalized to 100% delivery to mass spectrometer (Ar sensitivity = 8.0 x10^{-17} mol/mV),

[3] Static furnace blank is essentially atmospheric and has not been subtracted

[4] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0250; $^{36}Ar/^{37}Ar_{Ca}$ = 0.00025; $^{39}Ar/^{37}Ar_{Ca}$ = 0.00070)

[5] J-factor = 0.003600 (assumes K-Ar age of Fish Canyon sanidine is 27.8 Ma)

[6] Corrected for nucleogenic interferences

UG1508 K-feldspar (continued)

	T	Time	$^{40}Ar/^{39}Ar$[1]	$^{38}Ar/^{39}Ar$[1]	$^{37}Ar/^{39}Ar$[1]	$^{36}Ar/^{39}Ar$[1]	$^{39}Ar_K$[2]	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$[3]	$^{40}Ar^*/^{39}Ar_K$[4]	Age[5]	$^{39}Ar_K/^{40}Ar$[6]	$^{36}Ar/^{40}Ar$[6]
	(°C)	(min.)					(mol)	(%)	(%)	± 1σ	± 1 σ (Ma)	± 1 σ	± 1 σ
			x10[1]	x10[-2]	x10[-3]	x10[-1]	x10[-14]			x10[-1]		x10[-2]	x10[-5]
20	850	15	0.4205	1.233	4.751	0.003397	68.07	35.00	96.98	40.80 ± 0.16	26.31 ± 0.10	23.92 ± 0.03	8.099 ± 1.240
21	875	15	0.4221	1.250	5.683	0.003172	72.88	37.67	97.15	41.02 ± 0.13	26.45 ± 0.08	23.83 ± 0.03	7.527 ± 0.998
22	900	18	0.4286	1.253	5.067	0.004561	87.08	40.87	96.24	41.26 ± 0.14	26.60 ± 0.09	23.47 ± 0.03	10.68 ± 0.98
23	925	15	0.4320	1.246	5.009	0.004729	75.87	43.65	96.15	41.56 ± 0.13	26.79 ± 0.09	23.28 ± 0.03	10.98 ± 0.94
24	950	15	0.4408	1.261	7.492	0.005070	81.19	46.62	96.01	42.34 ± 0.13	27.29 ± 0.08	22.82 ± 0.03	11.53 ± 0.82
25	975	18	0.4456	1.252	6.501	0.004851	98.50	50.24	96.20	42.88 ± 0.13	27.63 ± 0.08	22.57 ± 0.03	10.91 ± 0.84
26	1000	15	0.4458	1.245	4.592	0.004491	80.69	53.19	96.43	43.01 ± 0.14	27.72 ± 0.09	22.56 ± 0.04	10.10 ± 0.95
27	1025	15	0.4496	1.253	4.877	0.005719	75.98	55.98	95.65	43.03 ± 0.14	27.73 ± 0.09	22.36 ± 0.03	12.76 ± 0.90
28	1050	18	0.4523	1.257	5.553	0.007003	70.30	58.56	94.84	42.91 ± 0.16	27.66 ± 0.10	22.23 ± 0.04	15.54 ± 1.08
29	1075	15	0.4571	1.273	7.979	0.008071	48.63	60.34	94.18	43.08 ± 0.23	27.76 ± 0.15	22.00 ± 0.03	17.71 ± 1.65
30	1100	18	0.4654	1.264	13.73	0.01068	52.95	62.28	92.64	43.14 ± 0.22	27.80 ± 0.14	21.60 ± 0.03	23.01 ± 1.49
31	1100	25	0.4701	1.274	10.88	0.01051	48.10	64.04	92.82	43.66 ± 0.22	28.14 ± 0.14	21.39 ± 0.04	22.42 ± 1.52
32	1100	45	0.4742	1.260	10.64	0.01139	59.83	66.24	92.35	43.81 ± 0.17	28.23 ± 0.11	21.20 ± 0.03	24.08 ± 1.12
33	1100	90	0.4792	1.273	12.25	0.01272	80.60	69.19	91.62	43.92 ± 0.19	28.30 ± 0.12	20.98 ± 0.04	26.62 ± 1.20
34	1100	120	0.4881	1.283	11.73	0.01523	72.95	71.86	90.25	44.07 ± 0.21	28.40 ± 0.13	20.59 ± 0.03	31.29 ± 1.37
35	1100	240	0.5021	1.292	10.45	0.01896	97.75	75.45	88.33	44.37 ± 0.19	28.59 ± 0.12	20.02 ± 0.03	37.89 ± 1.21
36	1200	18	0.4795	1.268	23.95	0.01284	52.61	77.38	91.55	43.92 ± 0.23	28.30 ± 0.14	20.97 ± 0.03	26.78 ± 1.55
37	1233	15	0.4813	1.266	13.97	0.01133	85.39	80.51	92.51	44.54 ± 0.14	28.70 ± 0.09	20.88 ± 0.03	23.59 ± 0.83
38	1266	15	0.4972	1.284	7.575	0.01447	200.5	87.86	90.89	45.20 ± 0.17	29.12 ± 0.11	20.21 ± 0.04	29.20 ± 0.94
39	1300	17	0.5097	1.279	5.583	0.01607	177.4	94.36	90.19	45.98 ± 0.15	29.62 ± 0.10	19.72 ± 0.04	31.65 ± 0.66
40	1350	15	0.5116	1.262	14.77	0.01483	148.4	99.80	90.95	46.54 ± 0.13	29.98 ± 0.08	19.64 ± 0.04	29.06 ± 0.55
41	1500	15	0.6908	1.379	91.86	0.07174	5.287	99.99	68.77	47.71 ± 2.39	30.72 ± 1.53	14.53 ± 0.06	103.9 ± 11.7
42	1650	18	33.25	18.96	-	10.75	0.1063	99.99	4.374	146.0 ± 207.1	92.40 ± 127.81	0.301 ± 0.012	323.5 ± 20.7
43	1650	18	424.4	264.3	-	143.5	0.01193	99.99	0.06543	27 ± 14550	17 ± 9356	0.024 ± 0.006	338.2 ± 116.1
44	1650	18	608.4	352.2	-	205.3	0.01135	99.99	0.2650	161 ± 37148	102 ± 22801	0.016 ± 0.007	337.5 ± 206.4