Supplementary material for "NEW ^{40}AR/^{39}AR AGES REVEAL CONTEMPORANEOUS MAFIC AND SILICIC ERUPTIONS DURING THE PAST 160 KA AT MAMMOTH MOUNTAIN AND LONG VALLEY CALDERA, CALIFORNIA" by Gail A. Mahood, Joshua H. Ring, Simone Manganelli, and Michael O. McWilliams

MINERAL SEPARATION AND ARGON ANALYTICAL TECHNIQUES

To prepare mineral separates for ^{40}Ar/^{39}Ar analysis, the samples were crushed in a small jawcrusher, a disc grinder, and, in some cases, a mortar and pestle, then sieved to maximize the 0.25-0.50 mm fraction. To prepare feldspar separates, mafic minerals and glass were removed using a Franz magnetic separator. Lithium metatungstate solution was used to affect a density-based separation of sanidine from plagioclase and quartz, and plagioclase from quartz. Feldspar concentrates were then slowly "refranzed" to remove composite grains and feldspars with large glass inclusions. Handpicking removed grains with inclusions and other flaws. The final handpicked feldspar separates were cleaned in 5% HF to remove any adhering glass. Biotites were handpicked from the magnetic fraction. Groundmass separates were obtained by first using the Franz magnetic separator to remove ~50% of the less-magnetic portion (which contained most of the feldspar and quartz phenocrysts in silicic samples and most of the plagioclase phenocrysts in basaltic samples) and then removing the remaining phenocrysts by handpicking. All separates were washed in baths of acetone and deionized water using an ultrasonic cleaner. Sample masses were 400-700 mg for plagioclase separates, 75-200 mg for sanidine, 75-200 mg for biotite, and 150-250 mg for groundmass separates.

Final separates were packaged in copper foil and stored in quartz vials. For samples with numbers lower than M-100, packets of 28.34-Ma Taylor Creek sanidine (sample 85G003 of Dalrymple and Duffield, 1988) were placed between every two to four samples as the neutron fluence monitor. The glass vials were irradiated for 30 minutes (batch #1) and 1 hour (batch #2) in the CLICIT cadmium-lined TRIGA Reactor at Oregon State University. For samples with numbers greater than M-100, the 1.19-Ma Alder Creek sanidine (Nomade et al., 2005) was used as the monitor, and vials were irradiated for 30 minutes.

The monitor minerals were analyzed by fusing grains completely using a Spectra-Physics 2016 continuous argon-ion laser at Stanford University. Four or five separate analyses, each of four to five grains, per monitor packet were made. Blanks were measured between every four analyses. For sample numbers lower than M-100, mineral splits were heated stepwise in a resistance furnace after the furnace blanks were measured at temperatures of 800, 1000, and 1200°C, and samples were degassed twice from 550°C to 650°C, with the released gas being pumped out of the system. For sample numbers greater than M-100, furnace blanks were measured at 800, 1000, 1200, and 1400°C, and no degassing was performed. At each temperature step, the furnace was brought up to temperature and kept at that temperature for eight minutes. The gas released was purified by SAES Zr-Al getters for five minutes, and analyzed in a MAP 216 mass spectrometer with a Baur Signer ion source and an electron multiplier.

The computer programs "Argus" (written by Michael McWilliams and Brad Hacker) and "Eyesorechron" (written by Brad Hacker) were used to statistically reduce the raw data utilizing the decay constants of Steiger and Jäger (1977). We used the following nucleogenic corrections: $(^{40}Ar/^{39}Ar)_K = (11 \pm 12) * 10^{-4}$, $(^{39}Ar/^{37}Ar)_{Ca} = (7.35 \pm 0.44) * 10^{-4}$, and $(^{36}Ar/^{37}Ar)_{Ca} = (2.66 \pm 0.07) * 10^{-4}$. Regression of ^{36}Ar/^{40}Ar vs. ^{39}Ar/^{40}Ar isochrons was done using the method of York (1969). The mean square weighted deviation was used to evaluate the goodness of fit for each isochron.

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Table DR1. Data for 40Ar/39Ar Analyses for Sample Numbers Less Than 100, Reported in "NEW 40AR/39AR AGES REVEAL CONTEMPORANEOUS MAFIC AND SILICIC ERUPTIONS DURING THE PAST 160 KA AT MAMMOTH MOUNTAIN AND LONG VALLEY CALDERA, CALIFORNIA" by Mahood et al.

M-16 SANIDINE											
T (°C) [1]	**Time (min)**	**40Ar (mol)**	**$^{40}Ar/^{39}Ar$** [2]	**$^{37}Ar/^{39}Ar$** [2]	**$^{36}Ar/^{39}Ar$** [2]	**K/Ca**	**Σ $^{39}Ar_K$**	**$^{40}Ar^*$**	**$^{40}Ar^*/^{39}Ar_K$** [3]	**Age (ka)** [4]	**±1 σ**
875	8	1.0E-13	8.2900	0.0294	0.0279	17	0.14	0.00	29.7903	7	2
925	8	7.9E-14	5.8526	0.0240	0.0195	20	0.29	0.01	81.1291	19	1
975	8	6.0E-14	3.4349	0.0164	0.0112	30	0.49	0.04	141.4576	33	1
1000	**8**	**1.8E-14**	**0.8694**	**0.0104**	**0.0025**	**47**	**0.72**	**0.13**	**115.5452**	**27**	**1**
1025	**8**	**9.4E-15**	**0.5741**	**0.0097**	**0.0015**	**50**	**0.91**	**0.20**	**119.8580**	**28**	**1**
1050	**8**	**3.7E-15**	**0.5539**	**0.0152**	**0.0015**	**32**	**0.98**	**0.20**	**111.2349**	**26**	**1**
1075	**8**	**2.1E-15**	**1.7655**	**0.0343**	**0.0056**	**14**	**1.00**	**0.07**	**119.8580**	**28**	**7**
1150	8	1.2E-14	31.8300	0.0928	0.1083	5.3	1.00	-0.01	-176.3348	-43	36

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0001305 (assumes Taylor Creek sanidine = 28.34 Ma)

M-17 SANIDINE											
T (°C) [1]	**Time (min)**	**40Ar (mol)**	**$^{40}Ar/^{39}Ar$** [2]	**$^{37}Ar/^{39}Ar$** [2]	**$^{36}Ar/^{39}Ar$** [2]	**K/Ca**	**Σ $^{39}Ar_K$**	**$^{40}Ar^*$**	**$^{40}Ar^*/^{39}Ar_K$** [3]	**Age (ka)** [4]	**±1 σ**
650	8	1.4E-14	8.3677	0.1960	0.0273	2.5	0.01	0.03	296.3643	130	32
750	8	8.9E-15	2.4839	0.1603	0.0080	3.1	0.04	0.05	124.7722	56	6
850	**8**	**7.3E-15**	**0.9454**	**0.1311**	**0.0030**	**3.7**	**0.10**	**0.08**	**72.1316**	**32**	**2**
900	**8**	**5.3E-15**	**0.6578**	**0.1122**	**0.0020**	**4.4**	**0.16**	**0.09**	**58.5093**	**26**	**2**
950	**8**	**4.9E-15**	**0.5078**	**0.0959**	**0.0015**	**5.1**	**0.24**	**0.14**	**69.8580**	**31**	**1**
975	**8**	**4.2E-15**	**0.4900**	**0.0838**	**0.0014**	**5.8**	**0.30**	**0.14**	**69.8580**	**31**	**2**
1000	**8**	**4.0E-15**	**0.4763**	**0.0732**	**0.0014**	**6.7**	**0.37**	**0.13**	**63.0450**	**28**	**2**
1025	**8**	**3.8E-15**	**0.4205**	**0.0646**	**0.0012**	**7.6**	**0.44**	**0.16**	**65.3148**	**29**	**1**
1050	**8**	**3.7E-15**	**0.4160**	**0.0562**	**0.0012**	**8.70**	**0.51**	**0.16**	**65.3148**	**29**	**2**
1075	**8**	**3.6E-15**	**0.4205**	**0.0488**	**0.0012**	**10**	**0.57**	**0.16**	**69.8580**	**31**	**1**
1100	**8**	**3.6E-15**	**0.3920**	**0.0407**	**0.0011**	**12**	**0.64**	**0.19**	**76.6824**	**35**	**2**
1150	**8**	**5.3E-15**	**0.2005**	**0.0266**	**0.0004**	**18**	**0.84**	**0.35**	**69.8580**	**31**	**1**
1250	**8**	**4.2E-15**	**0.2901**	**0.0290**	**0.0008**	**17**	**0.96**	**0.22**	**65.3148**	**29**	**1**
1400	8	5.0E-15	0.8885	0.0493	0.0027	9.9	1.00	0.09	83.5182	38	2

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-2006; analyzed: 10-21-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002481 (assumes Taylor Creek sanidine = 28.34 Ma)

M-17 BIOTITE											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
650	8	1.5E-14	65.0320	0.2057	0.2201	2.4	0.00	0.00	-10.8366	-5	150
725	8	1.1E-14	38.9015	0.1410	0.1318	3.5	0.01	-0.00	-36.7222	-17	68
825	8	2.8E-14	39.7456	0.1228	0.1348	4	0.02	-0.00	-75.2291	-36	32
925	8	5.5E-14	42.8215	0.1342	0.1454	3.7	0.05	-0.00	-146.9246	-70	26
1000	8	1.1E-13	20.4085	0.0538	0.0690	9.1	0.15	0.00	13.0436	6	10
1025	**8**	**4.6E-14**	**9.5250**	**0.0270**	**0.0320**	**18**	**0.24**	**0.01**	**74.4906**	**35**	**6**
1050	**8**	**7.1E-14**	**8.0825**	**0.0163**	**0.0270**	**30**	**0.41**	**0.01**	**92.2228**	**43**	**6**
1100	**8**	**8.8E-14**	**23.8739**	**0.0163**	**0.0805**	**30**	**0.48**	**0.00**	**101.1184**	**47**	**11**
1125	8	6.6E-14	24.4021	0.0201	0.0825	24	0.53	0.00	34.8796	16	15
1175	**8**	**1.7E-13**	**19.4492**	**0.0335**	**0.0655**	**15**	**0.70**	**0.01**	**103.3454**	**48**	**10**
1200	**8**	**1.5E-13**	**16.7474**	**0.0254**	**0.0563**	**19**	**0.87**	**0.01**	**98.8927**	**46**	**7**
1225	8	9.0E-14	13.9377	0.0258	0.0463	19	0.99	0.02	257.7136	117	8
1275	8	3.6E-15	10.9923	0.0781	0.0362	6.3	1.00	0.03	301.8961	136	35

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-2006; analyzed: 10-21-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0002554 (assumes Taylor Creek sanidine = 28.34 Ma)

M-18 SANIDINE											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
650	8	1.6E-14	2.6191	0.0176	0.0084	28	0.03	0.05	128.4041	29	2
700	8	6.2E-15	0.9027	0.0109	0.0027	45	0.07	0.13	119.4822	27	1
775	**8**	**8.3E-15**	**0.6489**	**0.0105**	**0.0017**	**47**	**0.14**	**0.24**	**159.7086**	**37**	**1**
850	**8**	**7.3E-15**	**0.3949**	**0.0116**	**0.0008**	**42**	**0.24**	**0.42**	**168.6751**	**39**	**1**
925	**8**	**1.0E-14**	**0.4936**	**0.0125**	**0.0011**	**39**	**0.35**	**0.33**	**168.6751**	**39**	**1**
1000	**8**	**4.9E-14**	**1.0461**	**0.0132**	**0.0029**	**37**	**0.61**	**0.17**	**182.1435**	**42**	**1**
1050	**8**	**6.5E-14**	**1.2878**	**0.0130**	**0.0038**	**38**	**0.88**	**0.13**	**164.1906**	**38**	**1**
1100	8	1.9E-14	0.9585	0.0113	0.0028	44	0.98	0.14	137.3358	31	1
1200	8	3.0E-14	9.0743	0.0354	0.0303	14	1.00	0.01	123.9419	28	9

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-2006; analyzed: 10-21-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001262 (assumes Taylor Creek sanidine = 28.34 Ma)

M-19 SANIDINE											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
750	8	9.1E-16	20.8278	0.1913	0.0606	2.6	0.00	0.14	4235.6134	1271	196
950	8	7.4E-15	1.3541	0.0468	0.0048	10	0.06	-0.05	-60.1701	-26	2
1000	8	3.8E-16	0.7203	0.0508	0.0020	9.70	0.07	0.18	127.7741	55	15
1075	**8**	**4.3E-15**	**0.4817**	**0.0414**	**0.0014**	**12**	**0.17**	**0.17**	**82.3798**	**36**	**1**
1150	**8**	**4.9E-15**	**0.3526**	**0.0346**	**0.0009**	**14**	**0.33**	**0.22**	**77.6292**	**33**	**1**
1225	**8**	**6.4E-15**	**0.2878**	**0.0256**	**0.0006**	**19**	**0.59**	**0.35**	**101.4349**	**44**	**1**
1350	**8**	**7.0E-15**	**0.1993**	**0.0222**	**0.0004**	**22**	**1.00**	**0.47**	**94.2793**	**41**	**0**

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-2006; analyzed: 10-21-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0002378 (assumes Taylor Creek sanidine = 28.34 Ma)

M-22 PLAG											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
750	8	5.4E-15	49.3051	10.4442	0.1660	0.047	0.02	0.01	249.8017	58	46
850	**8**	**9.8E-15**	**21.9155**	**8.9771**	**0.0735**	**0.055**	**0.08**	**0.01**	**196.5540**	**46**	**12**
950	**8**	**6.7E-15**	**7.7516**	**10.2480**	**0.0253**	**0.048**	**0.20**	**0.04**	**294.4462**	**68**	**6**
1000	**8**	**4.0E-15**	**3.8921**	**10.8839**	**0.0124**	**0.045**	**0.35**	**0.06**	**240.9025**	**56**	**5**
1050	**8**	**3.9E-15**	**2.9630**	**11.2268**	**0.0092**	**0.044**	**0.55**	**0.08**	**254.2551**	**59**	**4**
1100	**8**	**5.9E-15**	**4.2174**	**10.9354**	**0.0135**	**0.045**	**0.75**	**0.05**	**227.5721**	**53**	**4**
1200	8	2.4E-15	2.3593	10.5785	0.0064	0.046	0.90	0.20	489.2624	112	4
1300	8	4.8E-15	6.8341	10.4862	0.0159	0.047	1.00	0.31	2456.9082	502	7

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-2006; analyzed: 10-21-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0001285 (assumes Taylor Creek sanidine = 28.34 Ma)

M-20 NA-SAN											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
750	8	8.5E-15	31.4076	1.3086	0.1073	0.37	0.01	-0.01	-274.7976	-136	57
850	8	5.9E-15	7.4908	1.3593	0.0253	0.36	0.03	0.00	8.5208	4	14
950	**8**	**1.3E-14**	**3.0903**	**1.2258**	**0.0100**	**0.4**	**0.16**	**0.04**	**127.6174**	**60**	**4**
1000	**8**	**8.7E-15**	**1.8293**	**1.1259**	**0.0057**	**0.44**	**0.31**	**0.08**	**143.0373**	**67**	**3**
1025	**8**	**6.9E-15**	**1.7447**	**1.0735**	**0.0054**	**0.46**	**0.43**	**0.08**	**138.6255**	**65**	**3**
1050	8	7.5E-15	2.0527	1.0497	0.0064	0.47	0.54	0.08	169.6110	79	3
1075	**8**	**8.1E-15**	**2.3658**	**1.0175**	**0.0075**	**0.48**	**0.64**	**0.06**	**138.6255**	**65**	**3**
1100	**8**	**7.6E-15**	**2.4966**	**0.9988**	**0.0080**	**0.49**	**0.73**	**0.06**	**145.2451**	**68**	**5**
1150	**8**	**1.0E-14**	**3.2730**	**0.9759**	**0.0106**	**0.5**	**0.82**	**0.04**	**132.0170**	**62**	**5**
1225	8	4.4E-14	11.9304	0.9780	0.0401	0.5	0.93	0.01	70.8646	33	10
1300	8	1.7E-14	13.5091	1.0314	0.0453	0.48	0.97	0.01	136.4215	64	16
1400	8	6.4E-15	9.1516	1.0048	0.0297	0.49	0.99	0.04	391.0293	178	18
1500	8	2.9E-15	14.7053	1.0378	0.0480	0.47	1.00	0.04	570.5790	254	47

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity (5 ppm), and radioactive decay (irradiated: 05-2006; analyzed: 10-21-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002605 (assumes Taylor Creek sanidine = 28.34 Ma)

M-20 BIOTITE											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
925	8	2.0E-13	29.7912	0.0248	0.1011	20	0.08	-0.00	-87.9452	-42	13
975	**8**	**1.7E-13**	**24.8362**	**0.0241**	**0.0835**	**20**	**0.16**	**0.01**	**163.8789**	**75**	**12**
1000	**8**	**1.3E-13**	**23.3071**	**0.0260**	**0.0785**	**19**	**0.23**	**0.01**	**107.7609**	**50**	**12**
1025	8	2.3E-13	19.7387	0.0350	0.0670	14	0.37	-0.00	-62.4117	-29	7
1050	**8**	**2.4E-13**	**17.2623**	**0.0359**	**0.0581**	**14**	**0.53**	**0.01**	**101.0789**	**47**	**6**
1075	**8**	**2.1E-13**	**15.3408**	**0.0547**	**0.0518**	**9**	**0.70**	**0.00**	**43.6308**	**20**	**5**
1100	**8**	**1.7E-13**	**12.4562**	**0.0531**	**0.0413**	**9.20**	**0.87**	**0.02**	**246.0674**	**112**	**5**
1200	**8**	**1.3E-13**	**11.3700**	**0.0231**	**0.0377**	**21**	**1.00**	**0.02**	**234.5540**	**107**	**5**
1300	8	7.5E-15	39.5963	0.0748	0.1312	6.6	1.00	0.02	925.6945	388	437

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002555 (assumes Taylor Creek sanidine = 28.34 Ma)

M-11 NA-SAN											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
650	8	1.8E-14	11.6268	0.3785	0.0350	1.3	0.01	0.11	1489.2917	546	79
750	8	1.4E-14	2.3671	0.3770	0.0068	1.3	0.04	0.16	383.7268	157	12
850	**8**	**1.1E-14**	**0.6749**	**0.3405**	**0.0017**	**1.4**	**0.13**	**0.25**	**169.2198**	**71**	**2**
925	**8**	**1.2E-14**	**0.4873**	**0.3039**	**0.0011**	**1.6**	**0.25**	**0.34**	**166.7559**	**70**	**1**
975	**8**	**9.5E-15**	**0.4205**	**0.2704**	**0.0009**	**1.8**	**0.38**	**0.37**	**159.3722**	**67**	**1**
1025	**8**	**1.1E-14**	**0.4872**	**0.2301**	**0.0011**	**2.1**	**0.50**	**0.31**	**154.4566**	**65**	**1**
1075	**8**	**2.0E-14**	**0.7747**	**0.1833**	**0.0021**	**2.7**	**0.64**	**0.19**	**149.5464**	**63**	**1**
1150	**8**	**4.7E-14**	**1.0359**	**0.1191**	**0.0030**	**4.1**	**0.88**	**0.16**	**166.7559**	**70**	**1**
1250	8	1.1E-14	0.7653	0.1792	0.0017	2.7	0.96	0.34	271.4266	113	1
1400	8	1.0E-14	1.3920	0.1650	0.0040	3	1.00	0.15	211.3165	88	2

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002338 (assumes Taylor Creek sanidine = 28.34 Ma)

M-14 NA-SAN											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
600	8	1.0E-14	22.4622	0.7190	0.0631	0.68	0.01	0.17	4848.6044	834	61
700	8	7.5E-15	7.1257	0.3843	0.0198	1.3	0.03	0.18	1362.8872	276	18
800	8	6.1E-15	1.8806	0.2195	0.0048	2.2	0.09	0.24	462.6366	98	3
900	**8**	**3.0E-15**	**0.6546**	**0.1335**	**0.0012**	**3.7**	**0.18**	**0.45**	**297.6365**	**64**	**1**
950	**8**	**3.7E-15**	**0.6267**	**0.1166**	**0.0011**	**4.2**	**0.30**	**0.48**	**307.2565**	**66**	**1**
1000	**8**	**1.0E-14**	**1.5019**	**0.0943**	**0.0041**	**5.2**	**0.44**	**0.19**	**288.0271**	**62**	**1**
1050	**8**	**4.6E-15**	**0.6751**	**0.0795**	**0.0013**	**6.2**	**0.57**	**0.45**	**307.2565**	**66**	**1**
1150	**8**	**1.6E-14**	**1.1039**	**0.0527**	**0.0026**	**9.30**	**0.85**	**0.30**	**341.0108**	**73**	**1**
1250	**8**	**3.0E-15**	**0.7815**	**0.0447**	**0.0015**	**11**	**0.93**	**0.44**	**350.6790**	**75**	**1**
1350	8	1.9E-15	1.2947	0.0829	0.0033	5.9	0.96	0.25	326.5286	70	3
1450	8	2.8E-15	1.5995	0.0577	0.0041	8.5	0.99	0.25	408.9135	87	2
1550	8	4.0E-16	0.7819	0.0469	0.0007	10	1.00	0.74	600.8735	127	7

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0001194 (assumes Taylor Creek sanidine = 28.34 Ma)

M-15 NA-SAN											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
800	8	3.8E-15	11.8398	0.3194	0.0400	1.5	0.01	0.00	28.4721	13	35
950	**8**	**1.0E-14**	**3.6524**	**0.2648**	**0.0120**	**1.9**	**0.07**	**0.03**	**110.6403**	**51**	**5**
1000	**8**	**6.3E-15**	**1.9190**	**0.2311**	**0.0061**	**2.1**	**0.13**	**0.05**	**103.9150**	**48**	**3**
1050	**8**	**7.2E-15**	**1.4244**	**0.2039**	**0.0044**	**2.4**	**0.24**	**0.09**	**126.3761**	**58**	**3**
1100	**8**	**7.7E-15**	**1.1604**	**0.1843**	**0.0035**	**2.7**	**0.38**	**0.11**	**130.8832**	**60**	**2**
1150	**8**	**7.6E-15**	**1.0026**	**0.1618**	**0.0029**	**3**	**0.53**	**0.13**	**135.3954**	**62**	**2**
1200	**8**	**8.4E-15**	**0.9216**	**0.1255**	**0.0026**	**3.9**	**0.72**	**0.16**	**151.2274**	**69**	**2**
1275	**8**	**8.7E-15**	**0.6521**	**0.0762**	**0.0017**	**6.4**	**1.00**	**0.25**	**164.8467**	**75**	**1**

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002540 (assumes Taylor Creek sanidine = 28.34 Ma)

M-14 BIOTITE

T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
600	8	2.2E-14	30.7217	0.5026	0.1033	0.98	0.01	0.01	201.2640	50	51
700	8	2.4E-14	13.9258	0.2315	0.0454	2.1	0.03	0.04	515.7662	125	19
750	8	1.6E-14	6.9395	0.1615	0.0226	3	0.06	0.04	272.3774	67	13
800	8	1.9E-14	3.6517	0.0803	0.0117	6.1	0.13	0.05	197.1017	49	11
850	**8**	**2.5E-14**	**3.0860**	**0.1228**	**0.0093**	**4**	**0.23**	**0.11**	**352.6541**	**86**	**4**
900	**8**	**5.8E-14**	**4.3309**	**0.7852**	**0.0132**	**0.62**	**0.41**	**0.10**	**442.3701**	**108**	**4**
950	**8**	**1.1E-13**	**3.3267**	**0.1328**	**0.0100**	**3.7**	**0.82**	**0.12**	**390.9760**	**95**	**2**
1000	**8**	**2.7E-14**	**1.9760**	**0.0257**	**0.0054**	**19**	**0.99**	**0.20**	**395.2458**	**96**	**3**
1025	8	1.5E-15	9.6564	0.7156	0.0216	0.68	0.99	0.34	4123.6469	817	191
1075	8	5.6E-15	29.9263	3.5515	0.1022	0.14	1.00	-0.01	-293.7744	-75	226
1150	8	5.0E-15	37.3401	1.5662	0.1167	0.31	1.00	0.08	3489.1550	713	299
1250	8	3.8E-15	61.2548	3.2950	0.2738	0.15	1.00	-0.32	-6814.2945	-5277	581

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0001368 (assumes Taylor Creek sanidine = 28.34 Ma)

M-15 BIOTITE

T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
650	8	2.0E-14	36.9597	0.0591	0.1173	8.30	0.01	0.06	3188.2299	1125	312
750	8	1.9E-14	30.3709	0.0611	0.0988	8	0.02	0.04	1395.7516	579	132
850	**8**	**2.5E-14**	**12.3917**	**0.0278**	**0.0412**	**18**	**0.05**	**0.02**	**230.7990**	**110**	**21**
925	**8**	**2.2E-14**	**5.8092**	**0.0194**	**0.0188**	**25**	**0.12**	**0.05**	**272.8511**	**129**	**12**
975	**8**	**3.6E-14**	**6.2982**	**0.0141**	**0.0207**	**35**	**0.21**	**0.03**	**191.3667**	**91**	**14**
1000	**8**	**4.7E-14**	**9.1310**	**0.0144**	**0.0301**	**34**	**0.29**	**0.03**	**230.7990**	**110**	**18**
1025	**8**	**7.0E-14**	**11.8541**	**0.0286**	**0.0394**	**17**	**0.39**	**0.02**	**208.8436**	**99**	**17**
1050	**8**	**7.8E-14**	**11.0546**	**0.0294**	**0.0367**	**17**	**0.51**	**0.02**	**228.5980**	**109**	**12**
1075	8	8.8E-14	9.1579	0.0304	0.0306	16	0.66	0.01	130.8042	63	9
1100	**8**	**7.8E-14**	**7.2861**	**0.0274**	**0.0238**	**18**	**0.84**	**0.04**	**266.1818**	**126**	**8**
1175	**8**	**5.2E-14**	**5.5079**	**0.0126**	**0.0178**	**39**	**1.00**	**0.05**	**266.1818**	**126**	**7**
1275	8	5.4E-15	18.9422	0.0469	0.0555	10	1.00	0.13	3627.9628	1236	209

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002673 (assumes Taylor Creek sanidine = 28.34 Ma)

M-9 NA-SAN

T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
600	8	1.6E-14	41.5259	1.3092	0.1166	0.37	0.02	0.17	11358.4356	1606	135
700	8	6.7E-15	10.6810	0.9326	0.0304	0.53	0.06	0.16	1877.7220	384	30
800	8	3.1E-15	1.5734	0.6530	0.0036	0.75	0.16	0.33	528.6751	117	3
900	8	3.3E-15	0.8501	0.6136	0.0017	0.8	0.38	0.42	364.1919	81	1
950	**8**	**2.5E-15**	**0.7700**	**0.5790**	**0.0014**	**0.85**	**0.55**	**0.46**	**359.5391**	**80**	**1**
1000	**8**	**3.1E-15**	**0.9967**	**0.5734**	**0.0021**	**0.85**	**0.72**	**0.37**	**373.5052**	**83**	**1**
1050	**8**	**9.2E-15**	**3.5638**	**0.5725**	**0.0110**	**0.86**	**0.86**	**0.08**	**303.9063**	**68**	**2**
1100	8	2.1E-14	8.5580	0.5272	0.0282	0.93	1.00	0.03	234.8837	53	3

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0001245 (assumes Taylor Creek sanidine = 28.34 Ma)

M-6 PLAG											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
650	8	1.6E-15	32.3160	1.3274	0.1007	0.37	0.00	0.08	3487.8133	1062	176
750	8	1.4E-15	24.4493	1.6585	0.0768	0.3	0.01	0.07	2166.4165	729	148
850	8	4.7E-15	12.7903	2.8096	0.0424	0.17	0.02	0.02	264.7021	107	24
950	8	1.1E-15	6.0590	3.0463	0.0188	0.16	0.03	0.08	517.8378	203	40
1050	**8**	**5.8E-15**	**1.3240**	**3.3026**	**0.0038**	**0.15**	**0.26**	**0.15**	**207.9578**	**84**	**2**
1125	**8**	**4.8E-15**	**1.0540**	**3.6172**	**0.0028**	**0.14**	**0.50**	**0.20**	**220.7935**	**89**	**3**
1200	**8**	**1.6E-14**	**3.6230**	**3.6690**	**0.0115**	**0.13**	**0.72**	**0.06**	**223.3649**	**90**	**3**
1275	8	6.7E-15	2.5969	3.8106	0.0067	0.13	0.86	0.24	659.3317	255	4
1400	8	7.4E-15	2.7456	4.4495	0.0070	0.11	1.00	0.25	741.5909	284	5

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002264 (assumes Taylor Creek sanidine = 28.34 Ma)

M-3#1 NA-SAN											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
575	8	9.3E-15	4.8810	0.2387	0.0134	2.1	0.08	0.19	969.2007	196	26
650	**8**	**7.2E-15**	**2.6070**	**0.2096**	**0.0075**	**2.3**	**0.20**	**0.15**	**399.1536**	**83**	**17**
725	**8**	**6.8E-15**	**1.8256**	**0.2093**	**0.0049**	**2.3**	**0.36**	**0.21**	**384.2285**	**80**	**13**
825	**8**	**8.7E-15**	**1.5225**	**0.1952**	**0.0036**	**2.5**	**0.60**	**0.30**	**474.1529**	**98**	**8**
900	**8**	**1.0E-14**	**2.1748**	**0.1733**	**0.0061**	**2.8**	**0.80**	**0.17**	**379.2589**	**79**	**10**
950	8	5.0E-15	1.5545	0.1779	0.0030	2.8	0.94	0.42	677.2263	139	15
1000	8	2.2E-15	2.2661	0.1835	0.0031	2.7	0.98	0.59	1446.7273	285	50
1050	8	1.3E-15	5.1942	2.2124	0.0282	0.22	0.99	-0.60	-2620.0040	-669	183
1100	8	1.5E-15	7.7624	1.2570	0.0167	0.39	1.00	0.37	3353.6634	603	245

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0001165 (assumes Taylor Creek sanidine = 28.34 Ma)

M-3#2 NA-SAN											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
650	8	9.1E-15	2.5037	0.2247	0.0068	2.2	0.17	0.20	502.4527	102	5
725	8	3.4E-15	0.8064	0.2094	0.0014	2.3	0.36	0.48	390.5988	80	2
800	**8**	**2.0E-15**	**0.4451**	**0.2034**	**0.0001**	**2.4**	**0.57**	**0.97**	**441.2724**	**90**	**2**
875	**8**	**1.8E-15**	**0.5208**	**0.1878**	**0.0003**	**2.6**	**0.73**	**0.82**	**441.2724**	**90**	**3**
950	**8**	**3.1E-15**	**0.8495**	**0.1902**	**0.0014**	**2.6**	**0.90**	**0.52**	**456.5293**	**93**	**3**
1025	**8**	**1.9E-15**	**1.0123**	**0.1740**	**0.0019**	**2.8**	**0.99**	**0.44**	**456.5293**	**93**	**5**
1100	**8**	**2.3E-15**	**7.7598**	**0.1336**	**0.0245**	**3.7**	**1.00**	**0.07**	**533.1958**	**109**	**32**

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0001146 (assumes Taylor Creek sanidine = 28.34 Ma)

M-34 GR'MASS											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
700	8	1.3E-14	6.3715	0.2340	0.0212	2.1	0.03	0.02	112.8449	48	7
800	8	1.1E-14	2.3032	0.1857	0.0071	2.6	0.10	0.09	221.1848	92	3
850	**8**	**1.5E-14**	**1.2053**	**0.1552**	**0.0033**	**3.2**	**0.29**	**0.19**	**236.1642**	**98**	**1**
900	**8**	**1.3E-14**	**0.8838**	**0.1442**	**0.0022**	**3.4**	**0.52**	**0.26**	**233.6642**	**97**	**1**
950	**8**	**1.3E-14**	**0.8044**	**0.1573**	**0.0019**	**3.1**	**0.77**	**0.28**	**233.6642**	**97**	**1**
1050	**8**	**1.2E-14**	**1.1166**	**0.2287**	**0.0030**	**2.1**	**0.94**	**0.21**	**241.1684**	**100**	**2**
1150	8	6.3E-15	2.2928	0.5904	0.0071	0.83	0.98	0.09	211.2262	88	4
1400	8	4.6E-15	4.1334	0.7018	0.0134	0.7	1.00	0.04	183.9535	77	9

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002339 (assumes Taylor Creek sanidine = 28.34 Ma)

M-27 PLAG											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
600	8	6.5E-15	71.1800	2.6370	0.2064	0.19	0.02	0.14	19565.5878	2167	197
700	8	8.0E-15	30.4029	4.0426	0.0858	0.12	0.08	0.17	6893.8854	1079	60
800	8	4.5E-15	8.5192	4.3052	0.0254	0.11	0.21	0.12	1071.0963	216	13
900	**8**	**2.8E-15**	**3.0359**	**4.0727**	**0.0085**	**0.12**	**0.44**	**0.17**	**532.3182**	**111**	**4**
950	**8**	**1.8E-15**	**2.4419**	**3.9223**	**0.0064**	**0.12**	**0.62**	**0.23**	**567.6153**	**118**	**4**
1000	**8**	**2.4E-15**	**3.4537**	**3.7953**	**0.0100**	**0.13**	**0.78**	**0.14**	**507.1897**	**106**	**5**
1100	**8**	**2.6E-15**	**7.1625**	**3.4002**	**0.0223**	**0.14**	**0.87**	**0.08**	**587.8467**	**122**	**9**
1200	8	5.6E-15	19.6258	3.3482	0.0591	0.15	0.94	0.11	2445.7148	460	15
1300	8	2.9E-15	18.2926	3.9545	0.0524	0.12	0.98	0.15	3326.1616	601	20
1400	8	1.6E-15	16.1107	4.4702	0.0464	0.11	1.00	0.15	2779.7251	515	30

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0001170 (assumes Taylor Creek sanidine = 28.34 Ma)

M-5 SANIDINE											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
800	8	8.3E-15	15.1592	0.0572	0.0513	8.6	0.01	0.00	9.0157	4	24
950	**8**	**4.2E-15**	**1.8040**	**0.0433**	**0.0053**	**11**	**0.06**	**0.13**	**245.8011**	**108**	**5**
1000	**8**	**1.7E-15**	**0.6194**	**0.0374**	**0.0013**	**13**	**0.12**	**0.36**	**226.7420**	**99**	**3**
1050	**8**	**1.6E-15**	**0.4073**	**0.0299**	**0.0006**	**16**	**0.20**	**0.57**	**238.6440**	**105**	**2**
1125	**8**	**2.4E-15**	**0.3482**	**0.0229**	**0.0003**	**21**	**0.35**	**0.72**	**257.7560**	**113**	**2**
1200	**8**	**3.2E-15**	**0.3161**	**0.0167**	**0.0002**	**29**	**0.56**	**0.79**	**255.3624**	**112**	**1**
1300	**8**	**5.1E-15**	**0.2998**	**0.0116**	**0.0002**	**42**	**0.93**	**0.84**	**260.1510**	**114**	**1**
1400	**8**	**1.9E-15**	**0.6721**	**0.0854**	**0.0015**	**5.7**	**0.99**	**0.35**	**241.0284**	**106**	**3**
1500	8	1.7E-15	2.7101	0.1451	0.0084	3.4	1.00	0.09	245.8011	108	14

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002462 (assumes Taylor Creek sanidine = 28.34 Ma)

M-5 BIOTITE											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
650	8	9.2E-14	80.4206	0.2176	0.2671	2.3	0.02	0.02	1855.4831	741	260
750	8	6.7E-14	49.8573	0.1660	0.1626	3	0.03	0.04	2324.4287	889	119
850	**8**	**1.1E-13**	**30.2442**	**0.0987**	**0.1011**	**5**	**0.08**	**0.01**	**400.3994**	**188**	**74**
900	**8**	**6.2E-14**	**15.0205**	**0.0688**	**0.0496**	**7.1**	**0.13**	**0.03**	**386.7590**	**182**	**29**
950	**8**	**4.8E-14**	**7.9905**	**0.0589**	**0.0257**	**8.30**	**0.21**	**0.05**	**430.1097**	**201**	**15**
1000	**8**	**7.3E-14**	**7.3235**	**0.0638**	**0.0244**	**7.7**	**0.34**	**0.02**	**127.5137**	**62**	**6**
1025	**8**	**8.6E-14**	**5.7234**	**0.0385**	**0.0181**	**13**	**0.54**	**0.07**	**393.5735**	**185**	**6**
1050	**8**	**6.4E-14**	**3.3060**	**0.0330**	**0.0103**	**15**	**0.80**	**0.08**	**279.2534**	**133**	**4**
1075	**8**	**2.7E-14**	**1.7987**	**0.0342**	**0.0052**	**14**	**0.99**	**0.15**	**277.0439**	**132**	**3**
1300	8	5.8E-15	10.2506	0.0890	0.0295	5.5	1.00	0.15	1877.1112	748	71

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002697 (assumes Taylor Creek sanidine = 28.34 Ma)

M-7 BIOTITE											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
775	8	7.9E-14	182.9797	0.1952	0.6272	2.5	0.00	-0.01	-1795.4883	-1042	206
875	8	7.8E-14	132.8155	0.0908	0.4546	5.4	0.01	-0.01	-1279.2730	-676	83
925	8	8.4E-14	100.0595	0.0931	0.3419	5.3	0.02	-0.01	-855.5633	-423	56
975	8	1.5E-13	80.4928	0.0835	0.2741	5.9	0.04	-0.01	-474.9191	-223	33
1000	8	1.4E-13	67.3889	0.0709	0.2294	6.9	0.05	-0.01	-381.9820	-177	40
1025	8	1.0E-13	43.7733	0.0594	0.1483	8.20	0.08	-0.00	-59.4451	-26	24
1050	8	8.8E-14	29.8752	0.0538	0.1008	9.1	0.11	0.00	93.1434	41	16
1075	**8**	**9.0E-14**	**22.0161**	**0.0536**	**0.0733**	**9.1**	**0.14**	**0.02**	**372.7268**	**157**	**13**
1100	**8**	**6.0E-14**	**10.8238**	**0.0623**	**0.0354**	**7.9**	**0.20**	**0.03**	**372.7268**	**157**	**6**
1125	**8**	**6.5E-14**	**7.8218**	**0.0755**	**0.0253**	**6.5**	**0.28**	**0.05**	**370.2180**	**156**	**5**
1150	**8**	**9.0E-14**	**7.7701**	**0.0587**	**0.0252**	**8.30**	**0.39**	**0.04**	**325.2971**	**138**	**4**
1200	**8**	**1.7E-13**	**3.8995**	**0.0523**	**0.0121**	**9.4**	**0.80**	**0.08**	**322.8146**	**137**	**2**
1250	**8**	**4.0E-14**	**1.9169**	**0.0329**	**0.0054**	**15**	**1.00**	**0.17**	**345.2066**	**146**	**2**
1300	8	3.8E-15	13.0382	0.1566	0.0451	3.1	1.00	-0.02	-293.1240	-134	40

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002407 (assumes Taylor Creek sanidine = 28.34 Ma)

M-8 SANIDINE											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
650	8	7.1E-15	3.1539	0.0230	0.0079	21	0.04	0.26	870.8000	186	5
725	8	4.6E-15	1.4063	0.0111	0.0022	44	0.11	0.53	781.1778	167	3
800	8	6.6E-15	1.2650	0.0108	0.0019	45	0.21	0.55	726.8472	156	2
850	**8**	**6.7E-15**	**1.1347**	**0.0115**	**0.0014**	**43**	**0.33**	**0.64**	**756.4410**	**162**	**2**
950	**8**	**5.4E-15**	**0.8326**	**0.0089**	**0.0004**	**55**	**0.46**	**0.86**	**751.5019**	**161**	**2**
1050	**8**	**1.7E-14**	**0.8381**	**0.0077**	**0.0004**	**63**	**0.87**	**0.87**	**761.3829**	**163**	**2**
1150	8	6.6E-15	1.2726	0.0128	0.0018	38	0.97	0.59	781.1778	167	2
1300	8	4.6E-14	30.0091	0.0667	0.0987	7.3	1.00	0.03	875.8053	187	24

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0001226 (assumes Taylor Creek sanidine = 28.34 Ma)

M-26 SANIDINE											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
650	8	1.5E-14	4.1887	0.0899	0.0125	5.5	0.02	0.12	537.5847	242	21
750	8	1.4E-14	1.7321	0.0741	0.0047	6.6	0.06	0.21	372.6931	171	7
850	**8**	**1.3E-14**	**0.8701**	**0.0599**	**0.0018**	**8.20**	**0.15**	**0.38**	**340.4756**	**157**	**2**
900	**8**	**9.0E-15**	**0.6471**	**0.0489**	**0.0011**	**10**	**0.22**	**0.50**	**338.1840**	**156**	**2**
950	**8**	**8.7E-15**	**0.5723**	**0.0406**	**0.0008**	**12**	**0.31**	**0.57**	**338.1840**	**156**	**2**
975	**8**	**6.5E-15**	**0.5407**	**0.0348**	**0.0007**	**14**	**0.38**	**0.63**	**356.5531**	**164**	**2**
1000	**8**	**5.6E-15**	**0.4849**	**0.0286**	**0.0005**	**17**	**0.44**	**0.68**	**345.0629**	**159**	**2**
1025	**8**	**5.0E-15**	**0.4470**	**0.0245**	**0.0004**	**20**	**0.50**	**0.75**	**347.3584**	**160**	**2**
1050	**8**	**4.7E-15**	**0.4225**	**0.0209**	**0.0003**	**23**	**0.56**	**0.78**	**345.0629**	**159**	**2**
1075	**8**	**4.5E-15**	**0.4028**	**0.0186**	**0.0002**	**26**	**0.63**	**0.83**	**351.9532**	**162**	**2**
1175	**8**	**1.8E-14**	**0.4026**	**0.0155**	**0.0002**	**32**	**0.87**	**0.86**	**361.1582**	**166**	**2**
1350	8	5.7E-15	0.3850	0.0263	0.0001	19	0.96	0.91	368.0753	169	2
1550	8	3.7E-15	0.4806	0.0190	0.0004	26	1.00	0.78	393.5368	181	3

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002635 (assumes Taylor Creek sanidine = 28.34 Ma)

M-26 BIOTITE											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
650	8	4.3E-14	49.1488	0.0785	0.1609	6.2	0.01	0.03	1952.7075	711	108
750	8	5.4E-14	34.2497	0.0737	0.1139	6.7	0.02	0.02	628.4947	261	61
850	8	5.1E-14	9.5532	0.0479	0.0305	10	0.06	0.06	560.7644	234	11
950	**8**	**6.7E-14**	**4.7497**	**0.0295**	**0.0144**	**17**	**0.18**	**0.10**	**514.4428**	**216**	**5**
1000	**8**	**1.2E-13**	**6.4489**	**0.0269**	**0.0205**	**18**	**0.33**	**0.06**	**395.6484**	**168**	**3**
1050	**8**	**2.1E-13**	**5.3314**	**0.0532**	**0.0166**	**9.20**	**0.64**	**0.08**	**443.2993**	**188**	**3**
1100	**8**	**6.9E-14**	**1.7379**	**0.0492**	**0.0043**	**10**	**0.97**	**0.28**	**506.7674**	**213**	**3**
1150	8	7.0E-15	2.0489	0.0317	0.0051	15	0.99	0.26	563.3514	235	8
1200	8	4.1E-15	16.4551	0.0764	0.0470	6.4	1.00	0.16	3561.8977	1140	144
1300	8	6.0E-15	21.9479	0.0615	0.0647	8	1.00	0.13	4052.9619	1253	280
1400	8	3.4E-15	23.8360	0.0782	0.0669	6.3	1.00	0.17	6979.2502	1809	305

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002436 (assumes Taylor Creek sanidine = 28.34 Ma)

M-30 GR'MASS											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
800	8	1.3E-14	7.3241	0.8783	0.0243	0.56	0.08	0.02	151.9556	54	7
850	**8**	**1.5E-14**	**3.5332**	**0.7897**	**0.0116**	**0.62**	**0.26**	**0.03**	**94.0888**	**33**	**3**
875	**8**	**1.1E-14**	**2.5515**	**0.6867**	**0.0084**	**0.71**	**0.44**	**0.03**	**82.5922**	**29**	**3**
900	**8**	**8.1E-15**	**2.3624**	**0.6751**	**0.0077**	**0.73**	**0.59**	**0.04**	**85.4640**	**30**	**3**
950	**8**	**9.1E-15**	**2.9067**	**0.8320**	**0.0095**	**0.59**	**0.72**	**0.03**	**88.3373**	**31**	**3**
1050	8	2.0E-14	7.4929	1.2482	0.0252	0.39	0.84	0.01	36.8600	13	5
1200	8	3.1E-14	8.5587	2.6772	0.0287	0.18	1.00	0.01	65.3951	23	5

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0001962 (assumes Taylor Creek sanidine = 28.34 Ma)

M-31 GR'MASS

T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
700	8	9.6E-14	238.1828	1.9453	0.8144	0.25	0.02	-0.01	-1948.5493	-928	114
800	8	2.2E-13	125.0419	2.2138	0.4270	0.22	0.09	-0.01	-1015.1211	-424	45
850	**8**	**7.1E-14**	**17.6917**	**2.1275**	**0.0593**	**0.23**	**0.27**	**0.01**	**169.1610**	**62**	**9**
900	**8**	**3.9E-14**	**5.9378**	**1.0456**	**0.0194**	**0.47**	**0.54**	**0.03**	**200.2788**	**73**	**4**
950	**8**	**3.4E-14**	**6.0402**	**0.8938**	**0.0199**	**0.55**	**0.78**	**0.03**	**166.3415**	**61**	**3**
1000	**8**	**5.8E-14**	**14.8219**	**1.4405**	**0.0496**	**0.34**	**0.95**	**0.01**	**180.4546**	**66**	**7**
1050	8	6.2E-14	62.1372	9.6881	0.2108	0.051	1.00	-0.00	-145.0500	-55	24

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0002033 (assumes Taylor Creek sanidine = 28.34 Ma)

M-35 GR'MASS

T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
800	8	8.5E-15	4.3940	0.8795	0.0141	0.56	0.04	0.05	241.5592	104	7
850	**8**	**2.2E-14**	**2.4897**	**0.8633**	**0.0078**	**0.57**	**0.20**	**0.08**	**190.7038**	**82**	**2**
900	**8**	**1.8E-14**	**2.0287**	**0.5549**	**0.0062**	**0.88**	**0.37**	**0.09**	**195.5217**	**84**	**2**
950	**8**	**1.6E-14**	**2.2147**	**0.4296**	**0.0069**	**1.1**	**0.50**	**0.09**	**193.1121**	**83**	**2**
1050	**8**	**4.1E-14**	**3.2928**	**0.4538**	**0.0106**	**1.1**	**0.74**	**0.05**	**166.6943**	**72**	**2**
1200	**8**	**4.5E-14**	**4.1999**	**1.5535**	**0.0135**	**0.32**	**0.94**	**0.05**	**205.1736**	**88**	**3**
1400	**8**	**1.4E-14**	**4.4769**	**1.4451**	**0.0145**	**0.34**	**1.00**	**0.04**	**197.9327**	**85**	**5**

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0002408 (assumes Taylor Creek sanidine = 28.34 Ma)

M-33 GR'MASS

T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
800	**8**	**2.1E-14**	**1.2527**	**0.5822**	**0.0036**	**0.84**	**0.34**	**0.15**	**196.1104**	**79**	**1**
850	**8**	**1.1E-14**	**1.3960**	**1.0606**	**0.0040**	**0.46**	**0.50**	**0.15**	**214.1282**	**86**	**2**
900	**8**	**1.1E-14**	**1.3380**	**0.9649**	**0.0039**	**0.51**	**0.67**	**0.15**	**203.8237**	**82**	**2**
950	**8**	**1.7E-14**	**1.5141**	**0.8314**	**0.0044**	**0.59**	**0.89**	**0.13**	**206.3977**	**83**	**2**
1025	**8**	6.7E-15	3.4223	1.2471	0.0110	0.39	0.93	0.05	165.3849	67	6
1200	**8**	2.3E-14	8.7296	8.6969	0.0296	0.056	1.00	-0.00	-4.9178	-2	6

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0002253 (assumes Taylor Creek sanidine = 28.34 Ma)

M-39 GR'MASS

T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
700	8	4.2E-15	3.7304	1.5397	0.0110	0.32	0.03	0.13	494.1955	221	8
800	8	**2.1E-14**	**2.1946**	**1.2040**	**0.0067**	**0.41**	**0.26**	**0.09**	212.5387	98	**2**
850	8	**2.0E-14**	**1.7158**	**0.9223**	**0.0051**	**0.53**	**0.55**	**0.12**	217.0423	100	**2**
900	8	**1.2E-14**	**1.8989**	**0.8982**	**0.0057**	**0.55**	**0.71**	**0.11**	217.0423	100	**3**
950	8	1.5E-14	3.2428	1.4072	0.0103	0.35	0.82	0.06	190.0954	88	5
1050	8	1.5E-14	6.1601	2.0858	0.0204	0.23	0.88	0.02	121.3066	57	8
1150	8	2.4E-14	7.6320	8.0966	0.0255	0.061	0.98	0.01	99.3676	47	6
1400	8	2.2E-14	31.6843	14.8398	0.1079	0.033	1.00	-0.01	-189.2661	-92	23

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0002599 (assumes Taylor Creek sanidine = 28.34 Ma)

M-37 GR'MASS											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
700	8	3.4E-14	11.0737	0.5488	0.0369	0.89	0.08	0.02	184.0911	83	9
800	**8**	**7.3E-14**	**8.8004**	**1.1643**	**0.0291**	**0.42**	**0.30**	**0.02**	**207.1190**	**93**	**4**
850	**8**	**5.5E-14**	**5.9211**	**2.0972**	**0.0192**	**0.23**	**0.56**	**0.04**	**241.9012**	**109**	**3**
900	**8**	**3.7E-14**	**4.7433**	**2.2842**	**0.0153**	**0.21**	**0.77**	**0.05**	**218.6810**	**98**	**3**
950	**8**	**2.6E-14**	**5.5872**	**2.3615**	**0.0182**	**0.21**	**0.90**	**0.04**	**223.3147**	**100**	**6**
1000	8	1.9E-14	8.9231	2.4916	0.0298	0.2	0.96	0.01	124.8123	57	8
1050	8	1.9E-14	12.7581	2.6349	0.0426	0.19	1.00	0.01	165.7604	75	13

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002526 (assumes Taylor Creek sanidine = 28.34 Ma)

M-32 GR'MASS											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
675	8	2.1E-15	68.1118	0.2509	0.2356	2	0.00	-0.02	-1298.1948	-605	217
775	8	5.9E-14	42.6620	1.3440	0.1445	0.36	0.09	-0.00	-25.5792	-10	22
850	**8**	**5.1E-14**	**12.9113**	**1.6623**	**0.0425**	**0.29**	**0.35**	**0.03**	**359.5625**	**137**	**7**
900	**8**	**2.1E-14**	**4.4474**	**1.3308**	**0.0140**	**0.37**	**0.66**	**0.07**	**315.5289**	**121**	**4**
950	**8**	**1.3E-14**	**4.5151**	**1.3549**	**0.0142**	**0.36**	**0.85**	**0.07**	**315.5289**	**121**	**4**
1000	**8**	**9.7E-15**	**8.7547**	**1.7201**	**0.0289**	**0.28**	**0.92**	**0.03**	**234.0112**	**90**	**11**
1100	8	1.8E-14	26.5347	2.8836	0.0898	0.17	0.97	0.00	7.7015	3	22
1200	8	3.6E-14	483.5500	95.9734	1.6474	0.005	0.98	-0.01	-2342.4322	-1301	104
1400	8	3.2E-14	N/A	N/A	N/A	<0.001	1.00	0.00	-1262.9464	-585	108

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002161 (assumes Taylor Creek sanidine = 28.34 Ma)

M-38 GR'MASS											
T (°C) [1]	Time (min)	40Ar (mol)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	Age (ka) [4]	±1 σ
700	8	1.3E-14	9.0009	1.4675	0.0287	0.33	0.03	0.06	547.1108	240	12
800	**8**	**1.7E-14**	**3.5852**	**1.2394**	**0.0110**	**0.4**	**0.11**	**0.09**	**347.2778**	**156**	**4**
850	**8**	**2.4E-14**	**2.2062**	**1.0909**	**0.0063**	**0.45**	**0.30**	**0.16**	**366.1409**	**164**	**2**
900	**8**	**2.4E-14**	**1.9998**	**0.7680**	**0.0056**	**0.64**	**0.51**	**0.17**	**359.0574**	**161**	**2**
950	**8**	**1.8E-14**	**2.4830**	**0.5210**	**0.0072**	**0.94**	**0.63**	**0.14**	**363.7784**	**163**	**3**
1050	8	3.9E-14	3.2954	0.5175	0.0101	0.95	0.83	0.10	326.1565	147	2
1200	8	5.4E-14	5.8460	2.5325	0.0188	0.19	1.00	0.05	305.1403	138	4

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination, abundance sensitivity, and radioactive decay
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K = 0.0011$; $^{36}Ar/^{37}Ar_{Ca} = 0.000266$; $^{39}Ar/^{37}Ar_{Ca} = 0.000735$)
[4] J-factor = 0.0002566 (assumes Taylor Creek sanidine = 28.34 Ma)

Table DR2. Data for 40Ar/39Ar Analyses for Sample Numbers Greater Than 100, Reported in "NEW 40AR/39AR AGES REVEAL CONTEMPORANEOUS MAFIC AND SILICIC ERUPTIONS DURING THE PAST 160 KA AT MAMMOTH MOUNTAIN AND LONG VALLEY CALDERA, CALIFORNIA" by Mahood et al.

M-141 GR'MASS

T (°C) [1]	Time (min)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$^{39}Ar_K$ (mol)	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	±1 σ	Age (ka) [4]	±1 σ	$^{39}Ar_K/^{40}Ar$ [5]	±1 σ	$^{36}Ar/^{40}Ar$ [5]	±1 σ
600	8	79.37128	1.79038	0.26235	0.29	4.04E-12	0.01	0.02	1.98887	0.90159	522	709	0.01258	0.00008	0.00330	0.00004
700	**8**	**21.92189**	**1.50147**	**0.07376**	**0.35**	**5.98E-11**	**0.16**	**0.00**	**0.24233**	**0.05225**	**64**	**41**	**0.04557**	**0.00006**	**0.00335**	**0.00001**
750	**8**	**9.15243**	**1.03999**	**0.03018**	**0.50**	**6.31E-11**	**0.32**	**0.02**	**0.31634**	**0.04635**	**83**	**36**	**0.10919**	**0.00033**	**0.00327**	**0.00002**
800	**8**	**4.89377**	**0.77966**	**0.01553**	**0.67**	**8.22E-11**	**0.53**	**0.05**	**0.36548**	**0.03439**	**96**	**27**	**0.20427**	**0.00084**	**0.00313**	**0.00002**
850	**8**	**4.02647**	**0.67699**	**0.01267**	**0.77**	**8.08E-11**	**0.74**	**0.06**	**0.33341**	**0.03418**	**87**	**27**	**0.24830**	**0.00122**	**0.00310**	**0.00003**
900	**8**	**5.05769**	**0.68562**	**0.01608**	**0.76**	**5.33E-11**	**0.87**	**0.05**	**0.35942**	**0.05081**	**94**	**40**	**0.19766**	**0.00115**	**0.00314**	**0.00003**
950	**8**	**11.48151**	**0.91325**	**0.03791**	**0.57**	**2.39E-11**	**0.93**	**0.02**	**0.34997**	**0.11202**	**92**	**88**	**0.08705**	**0.00049**	**0.00328**	**0.00003**
1000	8	24.27607	1.45158	0.08117	0.36	1.14E-11	0.96	0.01	0.40365	0.23646	106	186	0.04115	0.00023	0.00333	0.00003
1200	8	54.12127	10.49864	0.18339	0.05	1.51E-11	1.00	-0.02	0.75935	0.19748	199	155	0.01833	0.00004	0.00334	0.00001

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 289.56±0.48), abundance sensitivity, and radioactive decay (irradiated: 05-2006; analyzed: 10-21-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001454 (assumes Alder Creek sanidine = 1.19 Ma)
[5] Corrected for static line blank and nucleogenic interferences

M-137 GR'MASS

T (°C) [1]	Time (min)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$^{39}Ar_K$ (mol)	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	±1 σ	Age (ka) [4]	±1 σ	$^{39}Ar_K/^{40}Ar$ [5]	±1 σ	$^{36}Ar/^{40}Ar$ [5]	±1 σ
600	**8**	**4.85533**	**1.56680**	**0.01576**	**0.33**	**4.9E-11**	**0.14**	**0.02**	**0.32109**	**0.13002**	**86**	**104**	**0.20577**	**0.00366**	**0.00316**	**0.00009**
800	**8**	**1.78523**	**0.71701**	**0.00510**	**0.72**	**2.4E-10**	**0.81**	**0.12**	**0.33480**	**0.01224**	**90**	**10**	**0.56020**	**0.00214**	**0.00275**	**0.00002**
850	**8**	**3.13514**	**1.02055**	**0.01012**	**0.51**	**2.8E-11**	**0.89**	**0.02**	**0.22369**	**0.07087**	**60**	**57**	**0.31884**	**0.00437**	**0.00314**	**0.00007**
900	**8**	**5.82797**	**1.89554**	**0.01902**	**0.27**	**1.3E-11**	**0.93**	**0.01**	**0.35647**	**0.12561**	**95**	**101**	**0.17138**	**0.00207**	**0.00318**	**0.00007**
950	**8**	**9.00387**	**2.47852**	**0.03068**	**0.21**	**9.5E-12**	**0.95**	**-0.03**	**0.13130**	**0.14948**	**35**	**120**	**0.11087**	**0.00096**	**0.00333**	**0.00005**
1000	**8**	**12.47466**	**3.44319**	**0.04269**	**0.15**	**8.4E-12**	**0.98**	**-0.03**	**0.12899**	**0.15129**	**34**	**121**	**0.07997**	**0.00050**	**0.00335**	**0.00004**
1050	8	35.89080	17.30119	0.12769	0.03	4.1E-12	0.99	-0.09	-0.48879	0.38803	-131	311	0.02751	0.00014	0.00343	0.00003
1100	8	98.40744	58.51030	0.35406	0.01	1.7E-12	0.99	-0.11	-1.69291	0.95723	-453	768	0.00972	0.00006	0.00344	0.00003
1200	8	61.64992	44.41907	0.21666	0.01	2.4E-12	1.00	-0.10	1.15537	1.04816	309	841	0.01569	0.00015	0.00332	0.00005

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 289.96±0.40), abundance sensitivity, and radioactive decay (irradiated: 05-2006; analyzed: 07-05-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001482 (assumes Alder Creek sanidine = 1.19 Ma)
[5] Corrected for static line blank and nucleogenic interferences

M-168 GR'MASS																
T (°C) [1]	Time (min)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$^{39}Ar_K$ (mol)	$\sum {}^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	±1 σ	Age (ka) [4]	±1 σ	$^{39}Ar_K/^{40}Ar$ [5]	±1 σ	$^{36}Ar/^{40}Ar$ [5]	±1 σ
600	**8**	**20.36515**	**1.46417**	**0.06853**	**0.35**	**6.6E-11**	**0.16**	**-0.00**	**0.22988**	**0.06351**	**62**	**51**	**0.04905**	**0.00010**	**0.00335**	**0.00001**
800	**8**	**3.13648**	**0.85243**	**0.00972**	**0.61**	**1.1E-10**	**0.42**	**0.06**	**0.33144**	**0.03273**	**89**	**26**	**0.31874**	**0.00198**	**0.00303**	**0.00003**
850	**8**	**-0.82030**	**0.70975**	**-0.00411**	**0.73**	**7.6E-12**	**0.43**	**-0.41**	**0.44996**	**0.41531**	**121**	**334**	**-1.21679**	**0.39771**	**0.00524**	**0.00219**
900	**8**	**3.46045**	**0.72908**	**0.01068**	**0.71**	**1.6E-10**	**0.80**	**0.07**	**0.36238**	**0.02158**	**97**	**17**	**0.28892**	**0.00104**	**0.00303**	**0.00002**
950	**8**	**6.67763**	**0.69600**	**0.02206**	**0.75**	**3.2E-11**	**0.88**	**0.02**	**0.21235**	**0.09797**	**57**	**79**	**0.14970**	**0.00132**	**0.00328**	**0.00005**
1000	**8**	**7.99774**	**0.87373**	**0.02638**	**0.59**	**2.1E-11**	**0.93**	**0.02**	**0.27081**	**0.14111**	**73**	**114**	**0.12497**	**0.00133**	**0.00327**	**0.00006**
1050	8	18.25996	4.09084	0.06188	0.13	1.1E-11	0.96	-0.02	0.29639	0.26750	80	215	0.05460	0.00049	0.00333	0.00005
1100	8	27.78142	9.37357	0.09512	0.06	7.8E-12	0.97	-0.04	0.41120	0.36911	110	297	0.03575	0.00029	0.00333	0.00004
1200	8	21.79038	7.91020	0.07531	0.07	1.1E-11	1.00	-0.05	0.15863	0.28241	43	227	0.04563	0.00034	0.00336	0.00004

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 289.96±0.40), abundance sensitivity, and radioactive decay (irradiated: 05-2006; analyzed: 07-04-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001487 (assumes Alder Creek sanidine = 1.19 Ma)
[5] Corrected for static line blank and nucleogenic interferences

M-139 GR'MASS																
T (°C) [1]	Time (min)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$^{39}Ar_K$ (mol)	$\sum {}^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	±1 σ	Age (ka) [4]	±1 σ	$^{39}Ar_K/^{40}Ar$ [5]	±1 σ	$^{36}Ar/^{40}Ar$ [5]	±1 σ
600	**8**	**22.95645**	**1.42140**	**0.07647**	**0.37**	**9.3E-11**	**0.30**	**0.01**	**0.47126**	**0.02733**	**127**	**22**	**0.04352**	**0.00002**	**0.00331**	**0.00000**
700	**8**	**2.59484**	**0.70550**	**0.00778**	**0.74**	**1.1E-10**	**0.66**	**0.09**	**0.34897**	**0.01195**	**94**	**10**	**0.38534**	**0.00073**	**0.00293**	**0.00001**
750	**8**	**2.80509**	**0.65678**	**0.00871**	**0.79**	**4.1E-11**	**0.79**	**0.06**	**0.28320**	**0.03066**	**76**	**25**	**0.35646**	**0.00160**	**0.00304**	**0.00004**
800	**8**	**3.43358**	**0.77854**	**0.01127**	**0.67**	**1.6E-11**	**0.84**	**0.01**	**0.16207**	**0.06532**	**44**	**53**	**0.29117**	**0.00278**	**0.00322**	**0.00006**
850	**8**	**5.92010**	**1.16226**	**0.01944**	**0.45**	**1.8E-11**	**0.90**	**0.01**	**0.26639**	**0.05948**	**72**	**48**	**0.16880**	**0.00083**	**0.00323**	**0.00003**
900	**8**	**13.05534**	**2.27012**	**0.04417**	**0.23**	**1.0E-11**	**0.94**	**-0.01**	**0.18062**	**0.11860**	**49**	**96**	**0.07648**	**0.00031**	**0.00334**	**0.00003**
950	**8**	**26.10794**	**3.65440**	**0.08907**	**0.14**	**6.3E-12**	**0.96**	**-0.02**	**0.07298**	**0.21801**	**20**	**176**	**0.03820**	**0.00013**	**0.00337**	**0.00003**
1000	8	42.27755	3.79844	0.14346	0.14	7.1E-12	0.98	-0.01	0.18355	0.24476	50	198	0.02359	0.00005	0.00337	0.00002
1200	8	157.69514	35.52527	0.54499	0.01	6.3E-12	1.00	-0.04	-0.57441	0.56978	-155	461	0.00618	0.00001	0.00340	0.00001

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 288.42±0.18), abundance sensitivity, and radioactive decay (irradiated: 05-2006; analyzed: 07-22-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001495 (assumes Alder Creek sanidine = 1.19 Ma)
[5] Corrected for static line blank and nucleogenic interferences

M-101 GR'MASS																
T (°C) [1]	Time (min)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$^{39}Ar_K$ (mol)	$\sum {}^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	±1 σ	Age (ka) [4]	±1 σ	$^{39}Ar_K/^{40}Ar$ [5]	±1 σ	$^{36}Ar/^{40}Ar$ [5]	±1 σ
600	**8**	**10.81118**	**2.65480**	**0.03608**	**0.20**	**4.6E-11**	**0.20**	**-0.01**	**0.35699**	**0.14820**	**95**	**118**	**0.09233**	**0.00082**	**0.00327**	**0.00005**
800	**8**	**5.13739**	**1.41857**	**0.01640**	**0.37**	**1.3E-10**	**0.78**	**0.03**	**0.40228**	**0.01840**	**107**	**15**	**0.19449**	**0.00033**	**0.00312**	**0.00001**
850	**8**	**9.06069**	**2.38946**	**0.03041**	**0.22**	**1.8E-11**	**0.86**	**-0.01**	**0.26096**	**0.09277**	**69**	**74**	**0.11019**	**0.00065**	**0.00329**	**0.00003**
900	**8**	**19.92883**	**2.41003**	**0.06823**	**0.22**	**7.2E-12**	**0.89**	**-0.02**	**-0.04507**	**0.22794**	**-12**	**182**	**0.05009**	**0.00032**	**0.00339**	**0.00004**
950	8	25.48895	2.03882	0.08557	0.25	6.0E-12	0.91	0.00	0.36313	0.31006	97	247	0.03918	0.00026	0.00334	0.00004
1000	8	27.44997	2.42378	0.09321	0.21	6.8E-12	0.94	-0.01	0.09745	0.30541	26	244	0.03637	0.00023	0.00337	0.00004
1050	8	41.61779	16.41856	0.14528	0.03	4.8E-12	0.97	-0.06	-0.02401	0.45172	-6	360	0.02374	0.00015	0.00339	0.00004
1100	8	30.11924	22.18905	0.10706	0.02	2.4E-12	0.98	-0.11	0.22888	0.91442	61	729	0.03266	0.00061	0.00336	0.00010
1200	8	31.43350	19.26676	0.11040	0.03	5.6E-12	1.00	-0.09	0.32772	0.39943	87	319	0.03136	0.00022	0.00335	0.00004

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 289.96±0.40), abundance sensitivity, and radioactive decay (irradiated: 05-2006; analyzed: 07-05-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001474 (assumes Alder Creek sanidine = 1.19 Ma)
[5] Corrected for static line blank and nucleogenic interferences

M-149 GR'MASS																
T (°C) [1]	Time (min)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$^{39}Ar_K$ (mol)	$\sum {}^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	±1 σ	Age (ka) [4]	±1 σ	$^{39}Ar_K/^{40}Ar$ [5]	±1 σ	$^{36}Ar/^{40}Ar$ [5]	±1 σ
600	8	11.33811	0.45706	0.03737	1.14	4.4E-11	0.11	0.02	0.32920	0.27612	88	221	0.08818	0.00142	0.00329	0.00008
700	**8**	**7.81775**	**0.81744**	**0.02517**	**0.64**	**1.1E-10**	**0.38**	**0.04**	**0.44312**	**0.06403**	**118**	**51**	**0.12786**	**0.00068**	**0.00319**	**0.00003**
750	**8**	**6.31585**	**0.73304**	**0.01981**	**0.71**	**7.0E-11**	**0.55**	**0.06**	**0.51742**	**0.07244**	**138**	**58**	**0.15827**	**0.00116**	**0.00311**	**0.00004**
800	**8**	**5.60805**	**0.70654**	**0.01753**	**0.74**	**7.0E-11**	**0.72**	**0.07**	**0.48170**	**0.04728**	**128**	**38**	**0.17826**	**0.00094**	**0.00309**	**0.00003**
850	**8**	**6.86988**	**0.86207**	**0.02214**	**0.60**	**4.9E-11**	**0.85**	**0.04**	**0.39420**	**0.03842**	**105**	**31**	**0.14549**	**0.00046**	**0.00319**	**0.00002**
900	8	14.32811	1.00591	0.04805	0.52	2.3E-11	0.90	0.00	0.20603	0.03762	55	30	0.06975	0.00007	0.00334	0.00001
950	8	24.78785	0.96537	0.08507	0.54	1.8E-11	0.95	-0.02	-0.27449	0.03427	-73	27	0.04032	0.00003	0.00342	0.00000
1000	8	30.76810	1.22578	0.10496	0.42	1.4E-11	0.98	-0.01	-0.15379	0.05798	-41	46	0.03247	0.00004	0.00340	0.00001
1200	8	43.02287	10.35329	0.14878	0.05	7.8E-12	1.00	-0.04	-0.13048	0.12485	-35	100	0.02307	0.00003	0.00339	0.00001

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 289.56±0.48), abundance sensitivity, and radioactive decay (irradiated: 05-2006; analyzed: 10-22-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001477 (assumes Alder Creek sanidine = 1.19 Ma)
[5] Corrected for static line blank and nucleogenic interferences

M-148 GR'MASS																
T (°C) [1]	Time (min)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$^{39}Ar_K$ (mol)	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	±1 σ	Age (ka) [4]	±1 σ	$^{39}Ar_K/^{40}Ar$ [5]	±1 σ	$^{36}Ar/^{40}Ar$ [5]	±1 σ
600	**8**	**17.38267**	**0.26795**	**0.05712**	**1.94**	**2.5E-11**	**0.06**	**0.03**	**0.52398**	**0.09740**	**143**	**80**	**0.05752**	**0.00018**	**0.00328**	**0.00002**
700	**8**	**8.11657**	**0.41457**	**0.02588**	**1.25**	**1.6E-10**	**0.42**	**0.05**	**0.50137**	**0.01397**	**137**	**11**	**0.12318**	**0.00011**	**0.00318**	**0.00001**
750	**8**	**7.22483**	**0.61193**	**0.02270**	**0.85**	**8.7E-11**	**0.61**	**0.06**	**0.56388**	**0.02386**	**154**	**20**	**0.13837**	**0.00025**	**0.00312**	**0.00001**
800	**8**	**6.79304**	**0.82545**	**0.02140**	**0.63**	**7.2E-11**	**0.77**	**0.06**	**0.53206**	**0.02794**	**145**	**23**	**0.14714**	**0.00034**	**0.00312**	**0.00001**
850	**8**	**8.58229**	**1.05066**	**0.02755**	**0.49**	**4.1E-11**	**0.86**	**0.04**	**0.52359**	**0.04833**	**143**	**40**	**0.11644**	**0.00037**	**0.00318**	**0.00002**
900	**8**	**14.83907**	**1.12711**	**0.04886**	**0.46**	**2.0E-11**	**0.91**	**0.02**	**0.48790**	**0.10233**	**133**	**84**	**0.06734**	**0.00026**	**0.00327**	**0.00002**
950	**8**	**29.33149**	**1.22546**	**0.09814**	**0.42**	**1.1E-11**	**0.93**	**0.01**	**0.42671**	**0.19274**	**116**	**158**	**0.03406**	**0.00013**	**0.00333**	**0.00002**
1000	8	46.89728	1.55221	0.15459	0.33	6.8E-12	0.95	0.02	1.33877	0.32586	365	266	0.02130	0.00009	0.00329	0.00002
1200	8	16.58641	3.39782	0.05425	0.15	2.5E-11	1.00	0.02	0.82430	0.11357	225	93	0.06014	0.00024	0.00322	0.00002

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 289.56±0.48), abundance sensitivity, and radioactive decay (irradiated: 05-2006; analyzed: 10-20-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001511 (assumes Alder Creek sanidine = 1.19 Ma)
[5] Corrected for static line blank and nucleogenic interferences

M-126 GR'MASS																
T (°C) [1]	Time (min)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$^{39}Ar_K$ (mol)	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	±1 σ	Age (ka) [4]	±1 σ	$^{39}Ar_K/^{40}Ar$ [5]	±1 σ	$^{36}Ar/^{40}Ar$ [5]	±1 σ
600	8	136.92738	1.33878	0.46197	0.39	2.0E-11	0.02	0.00	0.52081	0.37618	132	286	0.00730	0.00001	0.00337	0.00001
700	**8**	**40.58431**	**0.96219**	**0.13598**	**0.54**	**7.4E-11**	**0.11**	**0.01**	**0.47685**	**0.03991**	**121**	**30**	**0.02462**	**0.00001**	**0.00334**	**0.00000**
750	**8**	**31.31250**	**0.69757**	**0.10390**	**0.75**	**5.7E-11**	**0.17**	**0.02**	**0.66316**	**0.04514**	**168**	**34**	**0.03192**	**0.00003**	**0.00331**	**0.00000**
800	**8**	**29.10044**	**0.74489**	**0.09670**	**0.70**	**5.4E-10**	**0.78**	**0.02**	**0.58315**	**0.02240**	**148**	**17**	**0.03435**	**0.00001**	**0.00332**	**0.00000**
850	**8**	**35.60395**	**0.76776**	**0.11814**	**0.68**	**4.0E-11**	**0.83**	**0.02**	**0.75231**	**0.06273**	**191**	**48**	**0.02807**	**0.00003**	**0.00331**	**0.00001**
900	**8**	**58.37128**	**0.84846**	**0.19639**	**0.61**	**2.7E-11**	**0.86**	**0.00**	**0.40293**	**0.09035**	**102**	**69**	**0.01712**	**0.00002**	**0.00336**	**0.00000**
950	8	77.98694	0.83678	0.26387	0.62	2.6E-11	0.89	-0.00	0.07854	0.10646	20	81	0.01281	0.00001	0.00338	0.00000
1000	8	96.05045	0.85999	0.32325	0.60	3.2E-11	0.93	0.00	0.59737	0.09386	152	71	0.01040	0.00001	0.00336	0.00000
1200	8	79.53067	3.32172	0.26830	0.16	6.3E-11	1.00	-0.00	0.51060	0.05892	130	45	0.01254	0.00001	0.00336	0.00000

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 289.56±0.48), abundance sensitivity, and radioactive decay (irradiated: 05-2006; analyzed: 10-26-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001407 (assumes Alder Creek sanidine = 1.19 Ma)
[5] Corrected for static line blank and nucleogenic interferences

M-124A GR'MASS																
T (°C) [1]	Time (min)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$^{39}Ar_K$ (mol)	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	±1 σ	Age (ka) [4]	±1 σ	$^{39}Ar_K/^{40}Ar$ [5]	±1 σ	$^{36}Ar/^{40}Ar$ [5]	±1 σ
600	**8**	**18.81272**	**1.86535**	**0.06202**	**0.28**	**7.0E-11**	**0.22**	**0.02**	**0.63114**	**0.03187**	**170**	**26**	**0.05309**	**0.00005**	**0.00327**	**0.00001**
700	**8**	**5.47513**	**1.26522**	**0.01624**	**0.41**	**7.5E-11**	**0.46**	**0.11**	**0.77635**	**0.03036**	**210**	**25**	**0.18251**	**0.00049**	**0.00290**	**0.00002**
750	**8**	**4.98767**	**1.01433**	**0.01465**	**0.51**	**5.0E-11**	**0.62**	**0.12**	**0.73745**	**0.04043**	**199**	**33**	**0.20039**	**0.00089**	**0.00288**	**0.00003**
800	**8**	**5.93360**	**0.96473**	**0.01774**	**0.54**	**4.2E-11**	**0.76**	**0.10**	**0.76657**	**0.04503**	**207**	**36**	**0.16844**	**0.00074**	**0.00295**	**0.00002**
850	**8**	**9.97744**	**0.89441**	**0.03189**	**0.58**	**2.6E-11**	**0.84**	**0.05**	**0.62364**	**0.08180**	**168**	**66**	**0.10017**	**0.00043**	**0.00317**	**0.00003**
900	**8**	**19.62715**	**0.69858**	**0.06431**	**0.74**	**1.8E-11**	**0.90**	**0.03**	**0.67764**	**0.10599**	**183**	**86**	**0.05093**	**0.00016**	**0.00327**	**0.00002**
950	**8**	**25.47974**	**0.67692**	**0.08429**	**0.77**	**1.7E-11**	**0.96**	**0.02**	**0.62573**	**0.12176**	**169**	**99**	**0.03923**	**0.00010**	**0.00330**	**0.00002**
1000	**8**	**33.87038**	**1.05102**	**0.11289**	**0.49**	**1.4E-11**	**1.00**	**0.01**	**0.59280**	**0.16761**	**160**	**136**	**0.02950**	**0.00007**	**0.00332**	**0.00002**
1200	8	772.81730	-2.24068	2.56917	-0.23	8.6E-14	1.00	0.02	13.42952	62.87249	3621	50804	0.00130	0.00007	0.00333	0.00010

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 288.42±0.18), abundance sensitivity, and radioactive decay (irradiated: 05-2006; analyzed: 07-06-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001496 (assumes Alder Creek sanidine = 1.19 Ma)
[5] Corrected for static line blank and nucleogenic interferences

M-124B GR'MASS																
T (°C) [1]	Time (min)	$^{40}Ar/^{39}Ar$ [2]	$^{37}Ar/^{39}Ar$ [2]	$^{36}Ar/^{39}Ar$ [2]	K/Ca	$^{39}Ar_K$ (mol)	$\Sigma\ ^{39}Ar_K$	$^{40}Ar^*$	$^{40}Ar^*/^{39}Ar_K$ [3]	±1 σ	Age (ka) [4]	±1 σ	$^{39}Ar_K/^{40}Ar$ [5]	±1 σ	$^{36}Ar/^{40}Ar$ [5]	±1 σ
600	8	40.32755	2.06904	0.13784	0.25	1.5E-11	0.03	-0.01	-0.24163	0.20267	-62	156	0.02476	0.00008	0.00340	0.00002
700	**8**	**8.20556**	**1.81983**	**0.02580**	**0.29**	**6.5E-11**	**0.16**	**0.05**	**0.72431**	**0.04100**	**186**	**32**	**0.12172**	**0.00037**	**0.00309**	**0.00002**
750	**8**	**5.23418**	**1.29809**	**0.01566**	**0.40**	**5.2E-11**	**0.27**	**0.10**	**0.70705**	**0.04787**	**182**	**37**	**0.19091**	**0.00105**	**0.00293**	**0.00003**
800	**8**	**5.12534**	**1.06337**	**0.01507**	**0.49**	**5.3E-11**	**0.38**	**0.11**	**0.75443**	**0.04445**	**194**	**34**	**0.19500**	**0.00100**	**0.00289**	**0.00003**
850	**8**	**5.51385**	**0.97307**	**0.01613**	**0.53**	**4.6E-11**	**0.48**	**0.12**	**0.82419**	**0.05086**	**212**	**39**	**0.18127**	**0.00095**	**0.00288**	**0.00003**
900	**8**	**9.12064**	**0.86086**	**0.02880**	**0.60**	**2.9E-11**	**0.54**	**0.06**	**0.67798**	**0.07682**	**174**	**59**	**0.10959**	**0.00053**	**0.00313**	**0.00003**
950	**8**	**19.23201**	**0.71402**	**0.06324**	**0.73**	**2.0E-11**	**0.58**	**0.03**	**0.59883**	**0.11001**	**154**	**85**	**0.05197**	**0.00017**	**0.00328**	**0.00002**
1000	8	52.76173	0.95133	0.17863	0.55	1.9E-10	0.97	-0.00	0.04900	0.04938	13	38	0.01894	0.00001	0.00338	0.00000
1200	8	56.67249	7.90686	0.19124	0.07	1.2E-11	1.00	-0.01	0.78743	0.18167	202	140	0.01754	0.00003	0.00334	0.00001

[1] boldface steps used in calculating WMA and isochron ages
[2] Corrected for mass discrimination (measured $^{40}Ar/^{36}Ar_{ATM}$ = 289.56±0.48), abundance sensitivity, and radioactive decay (irradiated: 05-2006; analyzed: 10-25-2006)
[3] Corrected for atmospheric argon and nucleogenic interferences $^{40}Ar/^{39}Ar_K$ = 0.0011; $^{36}Ar/^{37}Ar_{Ca}$ = 0.000266; $^{39}Ar/^{37}Ar_{Ca}$ = 0.000735)
[4] J-factor = 0.0001425 (assumes Alder Creek sanidine = 1.19 Ma)
[5] Corrected for static line blank and nucleogenic interferences