GSA Data Repository Item # 8609

Title of article Age and time span of emplacement of the Pliny Range complex, northern New Hampshire

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see Bulletin v. 97, p. 595 - 602

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Table A

TABLE A. $^{40}Ar/^{39}Ar$ analytical data for mineral separates from Pliny complex, New Hampshire

T_1	$^{40}Ar/^{39}Ar$ Meas.$_2$	$^{37}Ar/^{39}Ar$ Corr.$_2$	$^{36}Ar/^{39}Ar$ Meas.$_2$	F_3	$^{40}Ar^*_4$	^{39}Ar(% of total)	K/Ca	Apparent Age$_5$
			--- Diorite --- NH75-47 Biotite					
#29104	(J=0.008909)							
600	13.42	0.06168	0.00667	11.41	85.06	9.75	7.43	174.7 ± 0.5
675	13.64	0.02872	0.00505	12.11	88.79	13.11	15.90	184.9 ± 1.6
750	13.41	0.08014	0.00370	12.28	91.61	9.26	5.71	187.4 ± 0.4
825	12.59	0.08365	0.00119	12.21	96.95	12.91	5.48	186.3 ± 0.7
900	12.27	0.06703	0.00089	11.97	97.57	49.72	6.83	182.8 ± 0.4
FUSION	15.32	0.29286	0.00856	12.79	83.42	5.25	1.56	194.6 ± 0.5
		sum of all fractions		12.04	93.54	100.00	5.97	183.8
		apparent age (all fractions)						183.8 ± 2.1
#2969	(J=0.008835)							
750	13.67	0.03995	0.00528	12.08	88.34	42.71	11.60	182.9 ± 0.4
FUSION	13.02	0.,07810	0.00321	12.06	92.47	57.29	5.86	182.4 ± 0.4
		sum of all fractions		12.06	90.66	100.00	7.43	182.6
		apparent age (all fractions)						182.6 ± 0.5
#29103	(J=0.0089181)							
675	fraction lost							
FUSION	12.34	0.07855	0.00125	11.94	96.76	100.00	5.83	182.3 ± 1.0
		apparent age (less 675)						182.3 ± 1.0
#30109	(J=0.008619)							
750	14.13	0.04049	0.00547	12.48	88.30	23.29	11.3	184.3 ± 0.9
FUSION	13.05	0.09306	0.00163	12.54	96.07	76.71	4.92	185.1 ± 4.9
		sum of all fractions		12.52	94.15	100.00	5.67	184.9
		apparent age (all fractions)						184.9 ± 0.6
#30105	(J=0.008533)							
750	13.41	0.04722	0.00237	12.68	94.50	51.37	9.70	185.3 ± 0.9
FUSION	13.16	0.11455	0.00153	12.68	96.34	48.63	4.00	185.4 ± 0.9
		sum of all fractions		12.68	95.39	100.00	5.73	185.3
		apparent age (all fractions)						185.3 ± 0.5
#30101	(J=0.008597)							
750	12.88	0.08662	0.00138	12.45	96.58	51.40	5.29	183.3 ± 0.6
FUSION	12.77	0.11205	0.00096	12.46	97.85	48.60	4.04	183.6 ± 0.8
		sum of all fractions		12.45	97.05	100.00	4.57	183.5
		apparent age (all fractions)						183.5 ± 0.5

Table A continued (page 2)

T_1	$^{40}Ar/^{39}Ar$ Meas.$_2$	$^{37}Ar/^{39}Ar$ Corr.$_2$	$^{36}Ar/^{39}Ar$ Meas.$_2$	F_3	$^{40}Ar^*_4$	^{39}Ar(% of total)	K/Ca	Apparent Age$_5$
			--- Quartz Monozodiorite --- NH82-2 Biotite					
#2999	(J=0.008895)							
675	13.21	0.02398	0.00482	11.75	88.95	19.50	19.10	179.4 ± 0.4
FUSION	12.75	0.05533	0.00252	11.97	93.88	80.50	8.28	182.6 ± 0.9
		sum of all fractions		11.93	92.89	100.00	9.30	181.9
		apparent age (all fractions)						181.9 ± 1.1
#2998	(J=0.008845)							
675	13.45	0.01813	0.00618	11.59	86.14	20.87	25.20	176.0 ± 9.8
FUSION	12.97	0.05926	0.00291	12.08	93.12	79.13	7.73	183.1 ± 0.9
		sum of all fractions		11.98	91.62	100.00	9.04	181.7
		apparent age (all fractions)						181.7 ± 2.3
#2980	(J=0.008845)							
675	13.96	0.03036	0.00618	12.10	86.66	55.47	15.10	183.4 ± 0.6
FUSION	12.88	0.07429	0.00231	12.17	94.44	44.53	6.17	184.5 ± 2.1
		sum of all fractions		12.13	89.97	100.00	9.17	183.9
		apparent age (all fractions)						183.9 ± 0.6
#2975	(J=0.008919)							
600	16.69	0.06477	0.02355	9.70	58.10	2.80	7.07	149.6 ± 4.9
675	12.72	0.01310	0.00196	12.11	95.17	16.60	35.00	185.1 ± 0.5
825	12.31	0.04202	0.00083	12.03	97.71	63.12	10.90	183.8 ± 0.5
FUSION	13.11	0.10896	0.00362	12.02	91.61	17.49	4.20	183.7 ± 0.5
		sum of all fractions		11.98	94.71	100.00	9.24	183.1
		apparent age (less 600)						184.0 ± 0.5
#2967	(J=0.008882)							
750	12.96	0.02089	0.00315	11.99	92.53	50.89	21.90	182.7 ± 0.4
FUSION	13.44	0.08006	0.00463	12.04	89.58	49.11	5.72	183.3 ± 0.8
		sum of all fractions		12.02	91.05	100.00	9.17	182.9
		apparent age (all fractions)						182.9 ± 0.5
#2963	(J=0.008912)							
FUSION	12.83	0.02697	0.00274	11.99	93.42	100.00	17.00	183.2 ± 0.4
#30113	(J=0.008584)							
FUSION	13.44	0.04810	0.00325	12.45	92.60	100.00	9.43	183.2 ± 0.8
#30120	(J=0.008504)							
FUSION	13.04	0.02449	0.00219	12.38	94.90	100.00	18.50	180.6 ± 0.8

Table A continued (page 3)

T_1	$^{40}Ar/^{39}Ar$ Meas.$_2$	$^{37}Ar/^{39}Ar$ Corr.$_2$	$^{36}Ar/^{39}Ar$ Meas.$_2$	F_3	$^{40}Ar^*{}_4$	^{39}Ar(% of total)	K/Ca	Apparent Age$_5$
			--- Quartz Monzodiorite --- NH82-2 Amphibole					
#29133	(J=0.008908)							
600	15.36	0.08069	0.01425	11.12	72.39	7.85	5.68	170.4 ± 2.5
675	12.58	0.06221	0.00210	11.93	94.80	17.13	7.36	182.1 ± 1.3
750	12.73	0.46217	0.00226	12.08	94.77	11.50	.99	184.1 ± 1.6
825	12.22	1.06870	0.00107	11.97	97.84	41.56	0.43	182.6 ± 0.4
900	12.19	0.35066	0.00074	11.97	98.13	19.59	1.31	182.6 ± 0.5
FUSION	16.97	2.10741	0.01636	12.29	72.35	2.38	0.21	187.3 ± 3.4
		sum of all fractions		11.92	93.80	100.00	0.72	181.9
		apparent age (less 600)						183.0 ± 0.5
#29134	(J=0.008923)							
600	12.90	0.04809	0.00451	11.54	89.40	15.89	9.52	176.7 ± 0.6
675	12.55	0.08472	0.00106	12.21	97.25	14.61	5.41	186.5 ± 0.5
750	12.85	0.59058	0.00130	12.49	97.10	8.54	0.78	190.7 ± 0.5
825	12.33	1.20410	0.00135	12.01	31.08	0.38	0.38	183.7 ± 0.5
900	13.20	0.51220	0.00434	11.94	90.33	21.01	0.89	182.6 ± 0.4
975	17.63	0.58879	0.01851	12.18	69.05	8.46	0.78	186.1 ± 1.3
FUSION	14.23	0.99376	0.41714	19.18	13.46	0.41	0.46	285.0 ± 78.9
		sum of all fractions		12.03	88.04	100.00	0.76	183.9
		apparent age (less 750 & FUSION)						182.9 ± 0.9

Table A continued (page 4)

T_1	$^{40}Ar/^{39}Ar$ Meas.$_2$	$^{37}Ar/^{39}Ar$ Corr.$_2$	$^{36}Ar/^{39}Ar$ Meas.$_2$	F_3	$^{40}Ar^*_4$	^{39}Ar(% of total)	K/Ca	Apparent Age$_5$
			--- Porphyritic Quartz Monzonite --- NH 77-3 Biotite					
#29C	(J=0.008830)							
675	13.15	0.12260	0.00492	11.67	88.73	30.21	3.74	176.9 ± 0.4
FUSION	12.78	0.02647	0.00187	12.20	95.41	69.79	17.30	184.6 ± 0.6
		sum of all fractions		12.04	93.35	100.00	8.25	182.3
		apparent age (all fractions)						182.3 ± 2.8
#29B	(J=0.008863)							
600	13.86	0.32378	0.01234	10.21	73.63	8.82	1.41	156.3 ± 0.5
750	13.42	0.17128	0.00341	12.39	92.32	30.41	2.67	187.9 ± 0.6
FUSION	12.90	0.29500	0.00212	12.27	95.05	60.77	1.55	186.3 ± 0.4
		sum of all fractions		12.13	92.21	100.00	1.76	184.2
		apparent age (less 600)						186.8 ± 3.9
#29A	(J=0.008889)							
600	14.63	0.43671	0.01841	9.18	62.83	5.43	1.05	141.8 ± 2.2
675	12.92	0.06867	0.00286	12.05	93.21	17.94	6.64	183.6 ± 0.4
750	13.91	0.25580	0.00453	12.56	90.25	27.40	1.79	190.9 ± 0.4
825	12.66	0.20780	0.00166	12.15	95.95	14.80	2.20	185.0 ± 0.5
FUSION	12.91	0.34509	0.00202	12.31	95.30	34.43	1.33	187.3 ± 0.4
		sum of all fractions		12.14	91.62	100.00	1.79	184.8
		apparent age (less 600)						187.2 ± 0.9

Table A continued (page 5)

T_1	$^{40}Ar/^{39}Ar$ Meas.$_2$	$^{37}Ar/^{39}Ar$ Corr.$_2$	$^{36}Ar/^{39}Ar$ Meas.$_2$	F_3	$^{40}Ar^*_4$	^{39}Ar(% of total)	K/Ca	Apparent Age$_5$
			--- Hastingsite Quartz Syenite --- NH82-4 Amphibole					
#29100	(J=0.00864)							
FUSION	12.85	4.2094	0.00432	11.93	92.53	100.00	0.11	181.4 ± 0.9
#2964	(J=0.008923)							
750	24.51	0.8380	0.04209	12.12	49.40	2.40	0.55	185.2 ± 3.8
800	20.51	1.2285	0.03146	11.29	55.01	1.77	0.37	173.2 ± 8.7
975	20.48	2.5516	0.03039	11.70	57.03	2.14	0.18	179.2 ± 6.9
1075	12.59	3.6314	0.00374	11.79	93.37	39.00	0.13	180.5 ± 1.2
1150	12.71	3.6282	0.00430	11.75	92.11	21.84	0.13	179.8 ± 2.9
1250	13.74	3.7414	0.00808	11.67	84.65	10.32	0.12	178.7 ± 2.6
FUSION	21.51	6.8210	0.03292	12.39	57.28	22.53	0.07	189.1 ± 2.3
		sum of all fractions		11.90	77.30	100.00	0.11	182.1
		apparent age (less 800 & 900)						182.3 ± 1.1
#2984	(J=0.008889)							
550	32.51	3.5094	0.03715	21.86	67.04	1.43	0.13	320.3 ± 12.4
675	19.24	1.4018	0.02541	11.83	61.40	4.65	0.33	180.4 ± 4.6
775	14.12	3.9557	0.00859	11.92	84.12	79.89	0.12	181.7 ± 1.1
FUSION	22.02	6.9844	0.03460	12.42	56.09	14.02	0.07	188.9 ± 5.7
		sum of all fractions		12.13	76.82	100.00	0.11	184.7
		apparent age (less 550)						182.7 ± 1.3
#29101	(J=0.008905)							
675	20.66	1.1309	0.02987	11.91	57.57	2.14	0.41	181.8 ± 11.9
750	15.90	1.0959	0.01671	11.03	69.30	1.21	0.42	169.1 ± 4.7
825	21.06	1.8383	0.01989	15.32	72.64	1.30	0.25	230.7 ± 8.9
900	13.68	3.4438	0.00646	12.06	87.90	10.35	0.13	184.1 ± 2.8
1050	12.20	3.8611	0.00241	11.82	96.53	62.89	0.12	180.5 ± 1.1
1125	12.80	6.5567	0.00481	11.96	92.94	21.08	0.07	182.5 ± 5.4
1200	39.79	7.5955	0.07918	17.10	42.73	0.82	0.06	255.7 ± 32.7
FUSION	11.13	9.1780	0.30114	23.27	20.75	0.21	0.05	339.8 ±134.9
		sum of all fractions		11.98	90.00	100.00	0.11	182.8
		apparent age (less 675, 750, 825, 1200 & FUSION)						181.4 ± 0.7
#2972	(J=0.008820)							
FUSION	13.22	4.0759	0.00502	12.09	91.11	100.00	0.11	182.7 ± 0.7
#2977	(J=0.008912)							
FUSION	13.01	4.3142	0.00487	11.94	91.45	100.00	0.11	182.4 ± 1.2

Table A continued (page 6)

T_1	$^{40}Ar/^{39}Ar$ Meas.$_2$	$^{37}Ar/^{39}Ar$ Corr.$_2$	$^{36}Ar/^{39}Ar$ Meas.$_2$	F_3	$^{40}Ar^*_4$	^{39}Ar(% of total)	K/Ca	Apparent Age$_5$
			--- Pink Biotite Granite --- NH82-1 Biotite					
#2974	(J=0.008906)							
600	20.44	0.0904	0.04832	6.13	29.99	1.33	5.06	95.9 ± 3.1
675	14.48	0.0090	0.00805	12.06	83.31	10.76	50.70	184.1 ± 1.2
750	12.97	0.0187	0.00151	12.48	96.25	26.12	24.40	190.2 ± 0.5
825	12.52	0.0102	0.00113	12.15	97.04	25.79	45.00	185.3 ± 0.4
900	12.44	0.0333	0.00134	12.01	96.53	29.22	13.80	183.4 ± 0.4
975	15.99	0.0917	0.01272	12.21	76.32	5.78	4.99	186.2 ± 1.2
FUSION	128.85	0.3114	0.37627	17.66	13.70	0.99	1.47	263.5 ± 24.9
		sum of all fractions		12.16	85.17	100.00	16.50	185.6
		apparent age (600 & FUSION)						185.9 ± 0.8
#2997	(J=0.008852)							
675	13.46	0.0140	0.00463	12.06	89.56	73.28	32.70	182.9 ± 0.9
FUSION	12.63	0.0696	0.00160	12.12	95.99	26.72	6.58	183.8 ± 0.4
		sum of all fractions		12.02	91.20	100.00	15.90	183.2
		apparent age (all fractions)						183.2 ± 0.6
#2962	(J=0.008879)							
750	13.44	0.0132	0.00544	11.79	87.75	33.38	34.70	179.7 ± 0.4
FUSION	14.45	0.0329	0.00752	12.19	84.38	66.62	13.90	185.6 ± 0.7
		sum of all fractions		12.06	85.45	100.00	17.40	183.5
		apparent age (all fractions)						183.5 ± 2.2
#2983	(J=0.008833)							
675	25.46	0.0179	0.04450	12.27	48.21	23.48	25.50	185.7 ± 13.8
FUSION	13.08	0.0323	0.00274	12.23	93.54	76.52	14.20	185.1 ± 1.5
		sum of all fractions		12.24	76.59	100.00	15.80	185.3
		apparent age (less 675)						185.3 ± 1.5
#30112	(J=0.008531)							
FUSION	13.35	0.0272	0.00252	12.57	94.15	100.00	16.60	183.8 ± 0.9
#30121	(J=0.008554)							
FUSION	130.7	0.0475	0.00204	12.43	95.12	100.00	9.53	182.3 ± 0.6

Table A continued (page 7)

T_1	$^{40}Ar/^{39}Ar$ Meas.$_2$	$^{37}Ar/^{39}Ar$ Corr.$_2$	$^{36}Ar/^{39}Ar$ Meas.$_2$	F_3	$^{40}Ar^*_4$	^{39}Ar(% of total)	K/Ca	Apparent Age$_5$
			--- Granite Porphyry --- NH82-14 Amphibole + Biotite					
#2979	(J=0.008874)							
600	12.04	0.2174	0.00487	10.59	87.90	16.85	2.11	161.9 ± 1.7
675	12.71	0.1777	0.00168	12.19	95.91	16.84	2.58	185.4 ± 1.2
750	13.84	0.7125	0.00349	12.83	92.69	23.90	0.64	194.5 ± 0.9
825	12.36	0.9074	0.00085	12.16	98.20	29.08	0.50	184.8 ± 0.4
900	12.60	1.9131	0.00223	12.09	95.75	11.74	0.24	183.8 ± 9.1
FUSION	21.62	2.9951	0.03867	11.02	50.87	1.59	0.15	168.3 ± 35.3
		sum of all fractions		12.03	93.27	100.00	0.59	183.3
		apparent age (less 600 & FUSION)						187.6 ± 1.5
#2973	(J=0.008874)							
FUSION	12.62	0.6846	0.00201	12.05	95.44	100.00	0.67	183.2 ± 0.6
#2986	(J=0.008923)							
550	12.13	0.1278	0.00444	10.79	88.96	18.04	3.58	165.9 ± 1.8
675	12.64	0.6501	0.00119	12.31	97.35	47.16	0.70	188.0 ± 0.5
800	12.45	0.4212	0.00144	12.03	96.56	25.83	1.09	183.8 ± 0.8
900	20.02	2.0063	0.02709	12.17	60.68	8.39	0.22	185.9 ± 0.7
1000	28.76	1.1878	0.05579	12.35	42.90	0.50	0.39	188.6 ± 26.0
FUSION	605.8	1.234	1.621	127.1	20.96	0.08	0.37	1367. ±1165.
		sum of all fractions		12.04	88.07	100.00	0.75	184.1
		apparent age (less 550, 1000, & FUSION)						186.5 ± 0.9

Table A continued (page 8)

T_1	$^{40}Ar/^{39}Ar$ Meas.$_2$	$^{37}Ar/^{39}Ar$ Corr.$_2$	$^{36}Ar/^{39}Ar$ Meas.$_2$	F_3	$^{40}Ar^*_4$	^{39}Ar(% of total)	K/Ca	Apparent Age$_5$
			--- Conway Granite --- NH82-7 Biotite					
#29102	(J=0.008838)							
675	13.64	0.0134	0.0053	12.03	88.17	40.44	34.10	182.2 ± 0.5
FUSION	12.77	0.1773	0.0021	12.13	94.96	59.56	2.58	183.7 ± 0.4
		sum of all fractions		12.09	92.10	100.00	4.13	183.1
		apparent age (all fractions)						183.1 ± 0.7
#2966	(J=0.008902)							
675	13.02	0.0091	0.0039	11.83	90.83	28.49	50.40	180.6 ± 0.4
FUSION	12.45	0.1334	0.0013	12.03	96.61	71.51	3.43	183.6 ± 0.6
		sum of all fractions		11.97	94.91	100.00	4.67	182.7
		apparent age (all fractions)						182.7 ± 1.1
#2968	(J=0.008859)							
675	12.99	0.0187	0.0034	11.94	91.92	28.60	24.50	181.3 ± 0.4
FUSION	12.65	0.1457	0.0019	12.04	95.22	71.40	3.10	182.9 ± 0.6
		sum of all fractions		12.01	94.26	100.00	4.14	182.4
		apparent age (all fractions)						182.4 ± 0.5
#2978	(J=0.008897)							
675	13.23	0.0078	0.0044	11.91	90.00	30.37	58.00	181.7 ± 0.5
FUSION	12.53	0.1420	0.0017	12.00	95.76	69.63	3.22	183.0 ± 0.9
		sum of all fractions		11.97	93.94	100.00	4.52	182.6
		apparent age (all fractions)						182.6 ± 0.7
#30106	(J=0.008580)							
FUSION	14.03	0.03056	0.0055	12.35	88.05	100.00	14.88	181.7 ± 0.7
#30100	(J=.008551)							
675	13.46	0.01144	0.00395	12.25	91.05	26.13	39.60	179.7 ± 0.9
FUSION	14.09	0.14382	0.00485	12.63	89.65	73.87	3.15	184.9 ± 0.9
		sum of all fractions		12.53	90.00	100.00	4.14	183.6
		apparent age (all fractions)						183.6 ± 1.9

Table A continued (page 9)

T_1	$^{40}Ar/^{39}Ar$ Meas.$_2$	$^{37}Ar/^{39}Ar$ Corr.$_2$	$^{36}Ar/^{39}Ar$ Meas.$_2$	F_3	$^{40}Ar^*_4$	^{39}Ar(% of total)	K/Ca	Apparent Age$_5$
			--- Conway Granite --- NH82-7 Amphibole					
#29G	(J=0.008885)							
600	15.14	0.0516	0.0133	11.18	73.82	8.10	8.87	170.8 ± 1.3
750	12.73	0.4326	0.0020	12.12	95.17	43.65	1.06	184.4 ± 0.5
825	12.29	0.7861	0.0011	12.00	97.55	39.60	0.58	182.8 ± 0.4
FUSION	13.72	0.5359	0.0056	12.08	88.03	8.68	0.85	183.9 ± 0.4
		sum of all fractions		11.99	93.37	100.00	0.83	182.6
		apparent age (less 600)						183.6 ± 0.6
#29F	(J=0.008909)							
525	41.48	0.3890	0.1260	4.24	10.21	0.36	1.18	66.8 ± 5.0
600	16.15	0.0402	0.0185	10.63	65.85	3.61	11.40	163.3 ± 1.3
675	12.76	0.0235	0.0019	12.14	95.10	21.48	19.50	185.2 ± 0.6
750	12.89	0.1308	0.0026	12.12	93.99	10.23	3.50	184.9 ± 0.8
825	12.41	0.7762	0.0014	12.03	96.88	48.18	0.59	183.7 ± 0.5
900	12.58	1.2797	0.0021	12.01	95.41	9.78	0.35	183.4 ± 0.6
FUSION	20.74	0.7749	0.0287	12.27	59.13	6.35	0.59	187.2 ± 0.8
		sum of all fractions		11.99	90.03	100.00	0.84	183.2
		apparent age (less 525, 600 & fusion)						184.3 ± 0.6

Table A continued (page 10)

NOTES TO TABLE

[1] Temperatures are in degrees centigrade and are estimated to be ±50°C.

[2] The isotope ratios are not corrected for interferring Ca- and K-derived argon isotopes. The ^{37}Ar has been corrected for decay using a half-life of 35.1 days.

[3] F is the ratio of radiogenic ^{40}Ar to K-derived ^{39}Ar. It is corrected for interferences and atmospheric argon using: $(^{40}Ar/^{36}Ar)_{air} = 295.5$; $(^{39}Ar/^{37}Ar)_{Ca} = 7.61 \times 10^{-4}$; $(^{36}Ar/^{37}Ar)_{Ca} = 2.872 \times 10^{-4}$; and $(^{40}Ar/^{39}Ar)_{K} = 3.82 \times 10^{-2}$.

[4] $^{40}Ar^*$ is the percent of total ^{40}Ar which is radiogenic ^{40}Ar.

[5] Ages were calculated with the following constants: $\lambda_e = 0.581\ 10^{-10}\ yr^{-1}$; $\lambda_\beta = 4.962 \times 10^{-10}\ yr^{-1}$; and $^{40}K = 1.167 \times 10^{-2}$ atom % of K. Uncertainties are quoted at the 1-sigma level and do not include uncertainty in J.