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Complete 40Ar/39Ar Analytical Data

All samples and flux monitors irradiated in the U.S. Geological Survey TIRGA reactor in Denver, Colorado (Dalrymple et al., 1981)
MMhb-1 hornblende age standard (Alexander et al., 1978: 519.4 ± 2.5 Ma) used as a flux monitor
All samples and flux monitors were analyzed at the U.S. Geological Survey argon dating laboratory in Reston, Virginia
Errors associated with individual ages are reported at one standard deviation

Jam-09-1 (Westphalia Schist Whole rock): J = 0.009413 ± 0.50%, wt. = 0.00387 g

18°, 01’, 19.6”N 76°, 37’, 55.4”W (Mahogany Vale Traverse)

Step	**Temp.**	**^{39}Ar**	**Rad. Yield**	**$^{39}Ar_k$**	**$^{40}Ar^*/^{39}Ar_k$**	**36Ar/40Ar**	**39Ar/40Ar**	**36Ar/39Ar**	**K/Ca**	**K/Cl**	**Age**	**Error**
	(C)	*(% of total)*	*(%)*	*(moles)*							*(Ma)*	*(Ma)*
A	550	0.3	3.0	5.28E-17	2.779	0.00328	0.01073	0.064	0.92	19	46.59	18.66
B	750	7.6	27.2	1.24E-15	1.457	0.00246	0.18663	0.159	1.09	57	24.57	0.79
C	850	11.4	82.8	1.87E-15	2.618	0.00058	0.31608	0.043	1.10	104	43.93	0.46
D	950	10.3	78.7	1.69E-15	2.696	0.00072	0.29174	0.054	0.60	181	45.22	0.50
E	1050	11.6	78.3	1.89E-15	2.644	0.00073	0.29622	0.055	0.38	291	44.34	0.46
F	1150	23.9	89.9	3.90E-15	3.133	0.00034	0.28679	0.048	0.55	337	52.44	0.23
G	1250	25.9	79.3	4.22E-15	3.068	0.00070	0.25857	0.105	0.53	32	51.37	0.23
H	1300	6.9	79.5	1.13E-15	3.212	0.00069	0.24767	0.043	0.20	35	53.73	0.75
I	1350	1.4	68.5	2.35E-16	3.689	0.00107	0.18557	0.060	0.10	28	61.58	3.24
J	1450	0.6	49.9	9.61E-17	3.800	0.00169	0.13137	0.086	0.06	15	63.40	8.37
Total Gas			77.6	1.63E-14	2.844				0.60	161	**47.70**	

Jam-09-4 (Westphalia K-feldspar): J = 0.009409 ± 0.50%, wt. = 0.00136 g

18°, 01', 20.0"N 76°, 37', 57.0"W (Mahogany Vale Traverse)

Step	Temp. (C)	^{39}Ar (% of total)	Rad. Yield (%)	$^{39}Ar_k$ (moles)	$^{40}Ar^*/^{39}Ar_k$	36Ar/40Ar	39Ar/40Ar	36Ar/39Ar	K/Ca	K/Cl	Age (Ma)	Error (Ma)
B	700	0.7	51.9	3.79E-16	3.333	0.00163	0.15579	0.086	7.39	51	55.71	2.97
C	800	2.1	88.9	1.17E-15	2.149	0.00038	0.41365	0.02	27.65	137	36.11	0.99
D	900	4.9	93.9	2.69E-15	2.598	0.00021	0.36142	0.015	52.27	282	43.57	0.43
E	950	3.9	93.2	2.17E-15	2.798	0.00023	0.33303	0.015	156.49	515	46.87	0.53
F	1000	4.0	94.5	2.17E-15	2.933	0.00019	0.32216	0.013	113.38	676	49.12	0.52
G	1050	4.0	97.0	2.23E-15	3.061	0.00010	0.31685	0.007	117.92	855	51.22	0.53
H	1100	4.4	97.1	2.45E-15	3.108	0.00010	0.31228	0.007	144.51	800	52.00	0.50
I	1150	3.8	97.3	2.07E-15	3.151	0.00009	0.30878	0.006	121.36	617	52.70	0.54
J	1200	3.9	95.8	2.14E-15	3.118	0.00014	0.30722	0.01	43.25	474	52.17	0.53
K	1250	3.6	77.2	1.98E-15	3.146	0.00077	0.24525	0.056	89.21	36	52.63	0.60
L	1300	7.3	91.3	4.01E-15	3.414	0.00029	0.26738	0.026	76.10	99	57.05	0.36
M	1350	29.5	97.5	1.61E-14	3.516	0.00008	0.27734	0.035	200.80	361	58.71	0.09
N	1450	25.2	97.3	1.37E-14	3.563	0.00009	0.27292	0.034	189.75	503	59.50	0.10
O	1550	2.7	92.7	1.47E-15	3.600	0.00025	0.25756	0.015	884.96	102	60.10	0.77
Total Gas			95.1	5.48E-14	3.318				170.92	420	**55.40**	

Jam-09-6 (Westphalia K-feldspar): J = 0.009393 ± 0.50%, wt. = 0.00105 g

18°, 03', 26.4"N 76°, 39', 1.1"W (near village of Westphalia)

Step	Temp. (C)	^{39}Ar (% of total)	Rad. Yield (%)	$^{39}Ar_k$ (moles)	$^{40}Ar^*/^{39}Ar_k$	36Ar/40Ar	39Ar/40Ar	36Ar/39Ar	K/Ca	K/Cl	Age (Ma)	Error (Ma)
B	700	0.9	42.8	3.38E-16	3.020	0.00193	0.14183	0.078	5.13	40	50.47	2.88
C	800	2.3	78.5	8.82E-16	1.991	0.00073	0.39418	0.034	13.51	83	33.42	1.08
D	900	3.8	88.8	1.48E-15	2.343	0.00038	0.3788	0.02	75.24	159	39.27	0.67
E	950	3.3	86.6	1.30E-15	2.597	0.00045	0.33343	0.024	46.60	291	43.48	0.78
F	1000	3.2	88.3	1.22E-15	2.759	0.00040	0.32004	0.021	40.08	433	46.16	0.77
G	1050	2.9	91.8	1.12E-15	2.906	0.00028	0.31592	0.015	99.01	599	48.58	0.89
H	1100	3.2	91.4	1.25E-15	2.919	0.00029	0.31321	0.015	37.88	485	48.79	0.75
I	1150	3.1	90.6	1.22E-15	2.904	0.00032	0.31205	0.017	33.65	383	48.56	0.77
J	1200	2.9	97.8	1.12E-15	3.179	0.00007	0.30776	0.003	***	258	53.08	0.95
K	1250	3.9	68.6	1.54E-15	3.149	0.00106	0.21793	0.065	41.03	20	52.60	0.68
L	1275	3.5	87.8	1.37E-15	3.319	0.00041	0.26468	0.025	209.21	37	55.38	0.68
M	1300	6.9	95.4	2.67E-15	3.514	0.00016	0.27149	0.014	147.06	149	58.59	0.39
N	1325	14.7	97.5	5.68E-15	3.553	0.00009	0.27438	0.016	175.75	210	59.23	0.18
O	1350	31.9	97.8	1.25E-14	3.592	0.00007	0.27227	0.029	194.93	294	59.87	0.10
P	1400	12.2	97.1	4.78E-15	3.621	0.00010	0.2683	0.015	144.72	327	60.33	0.21
Q	1450	0.9	90.8	3.60E-16	3.734	0.00031	0.24322	0.014	18.97	132	62.20	2.58
R	1550	0.6	79.0	2.29E-16	3.461	0.00071	0.22813	0.03	21.79	118	57.71	4.09
Total Gas			93.3	3.90E-14	3.335				139.99	262	**55.70**	

Jam-09-14 (Mt. Hibernia Whole Rock): J = 0.009414 ± 0.50%, wt. = 0.00153 g

17°, 58', 45.1"N 76°, 29', 54.2"W (Union Hill Forestry Road Traverse)

Step	Temp. (C)	^{39}Ar (% of total)	Rad. Yield (%)	$^{39}Ar_k$ (moles)	$^{40}Ar^*/^{39}Ar_k$	36Ar/40Ar	39Ar/40Ar	36Ar/39Ar	K/Ca	K/Cl	Age (Ma)	Error (Ma)
B	750	2.4	24.2	2.25E-16	3.200	0.00257	0.07555	0.098	0.03	20	53.55	7.33
C	850	6.5	72.2	6.04E-16	4.551	0.00094	0.1587	0.043	0.06	31	75.68	2.66
D	950	26.1	80.5	2.44E-15	4.636	0.00066	0.1736	0.048	0.05	140	77.07	0.70
E	1050	42.3	83.5	3.95E-15	4.602	0.00056	0.18145	0.061	0.07	235	76.51	0.44
F	1150	5.9	67.7	5.48E-16	4.554	0.00109	0.14873	0.048	0.02	53	75.74	3.04
G	1250	3.8	50.7	3.59E-16	5.357	0.00167	0.09457	0.064	0.01	3	88.76	4.77
H	1300	10.6	61.2	9.92E-16	4.731	0.00131	0.12933	0.056	0.01	57	78.62	1.80
I	1350	1.9	56.1	1.79E-16	9.090	0.00148	0.06175	0.06	0.01	42	148.13	8.98
J	1450	0.4	13.3	3.71E-17	2.902	0.00293	0.04582	0.114	0.01	26	48.62	46.61
Total Gas			75.2	9.34E-15	4.692				0.05	149	**77.90**	

80.8 % gas released on plateau in steps C-F

Plateau Age = 76.6 ± 0.5

Jam-09-16 (Mt. Hibernia Whole Rock): J = 0.009417 ± 0.50%, wt. = 0.0136 g

17°, 58', 54.9" 76°, 29', 42.3" (Union Hill Forestry Road Traverse)

Step	Temp. (C)	^{39}Ar (% of total)	Rad. Yield (%)	$^{39}Ar_k$ (moles)	$^{40}Ar^*/^{39}Ar_k$	36Ar/40Ar	39Ar/40Ar	36Ar/39Ar	K/Ca	K/Cl	Age (Ma)	Error (Ma)
A	550	0.5	2.5	4.19E-17	2.851	0.00330	0.00868	1.068	0.08	15	47.80	21.49
B	750	4.6	34.4	4.24E-16	3.279	0.00222	0.10478	0.345	0.08	36	54.87	1.64
C	850	8.6	76.4	7.90E-16	3.973	0.00080	0.19233	0.233	0.13	35	66.27	0.74
D	950	14.9	78.9	1.36E-15	4.318	0.00071	0.1828	0.189	0.09	110	71.90	0.55
E	1050	17.3	78.1	1.59E-15	4.501	0.00074	0.17357	0.259	0.16	155	74.89	0.47
F	1150	30.1	80.8	2.76E-15	4.557	0.00065	0.17728	0.148	0.08	224	75.81	0.37
G	1250	8.0	64.9	7.34E-16	4.342	0.00119	0.14957	0.348	0.02	66	72.29	0.96
H	1300	1.8	62.2	1.69E-16	3.199	0.00128	0.19438	0.902	0.03	66	53.55	4.69
I	1350	1.5	42.6	1.36E-16	3.921	0.00194	0.1087	0.676	0.01	31	65.41	4.57
J	1450	12.6	20.2	1.15E-15	4.681	0.00270	0.04314	0.172	0.01	8	77.82	1.56
Total Gas			67.3	9.15E-15	4.358				0.09	124	**72.40**	

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Sample #	Location	Unit/Traverse
Jam-09-1	18°, 01’, 19.6” 76°, 37’, 55.4”	Westph / M.V.
Jam-09-1A	18°, 01’, 19.6” 76°, 37’, 55.4”	Westph / M.V.
Jam-09-2	18°, 01’, 18.9” 76°, 37’, 54.7”	Westph / M.V.
Jam-09-3	18°, 01’, 19.6” 76°, 37’, 55.6”	Westph / M.V.
Jam-09-4	18°, 01’, 20.0” 76°, 37’, 57.0”	Westph / M.V.
Jam-09-5	18°, 01’, 21.3” 76°, 38’, 2.4”	Westph / M.V.
Jam-09-6	18°, 03’, 26.4” 76°, 39’, 1.1”	Westph / nr. West
Jam-09-7	18°, 03’, 25.8” 76°, 38’, 59.5”	Westph / nr. West
Jam-09-8	18°, 03’, 46.6” 76°, 39’, 3.1”	Westph / nr. West
Jam-09-11	17°, 58’, 42.5” 76°, 30’, 4.2”	Mt. Hib / U. H.
Jam-09-12	17°, 58’, 43.1” 76°, 30’, 2.9”	Mt. Hib / U. H.
Jam-09-13	17°, 58’, 43.9” 76°, 30’, 0.5”	Mt. Hib / U. H.
Jam-09-14	17°, 58’, 45.1” 76°, 29’, 54.2”	Mt. Hib / U. H.
Jam-09-15	17°, 58’, 49.3” 76°, 29’, 48.8”	Mt. Hib / U. H.
Jam-09-16	17°, 58’, 54.9” 76°, 29’, 42.3”	Mt. Hib / U. H.
Jam-09-17	17°, 58’, 23.8” 76°, 29’, 0.6”	Mt. Hib / M.R.
Jam-09-18	17°, 58’, 18.8” 76°, 28’, 56.3”	Mt. Hib / M.R.

Westph / M.V. = Westphalia Schist unit / Mahogany Vale traverse

Westph / nr. West = Westphalia Schist unit / traverse near village of Westphalia

Mt. Hib / U.H. = Mt. Hibernia Schist unit / Union Hill forestry road traverse

Mt. Hib / M.R. = Mt. Hibernia Schist unit / Morant River traverse (east arm of river above dam)