

Online supplement to:

**Kinematics of the Amanos Fault, southern Turkey,
from Ar-Ar dating of offset Pleistocene basalt flows:
transpression between the African and Arabian plates**

by

Ali Seyrek, Tuncer Demir, Malcolm Pringle, Sema Yurtmen,
Rob Westaway, Anthony Beck, George Rowbotham

Prepared by Rob Westaway, The Open University, June 2006

based on data supplied by Bill Olszewski, Massachusetts Institute of Technology.

Sample 01TR53

Data Tables

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Procedure Blanks		36Ar	1 σ	37Ar	1 σ	38Ar	1 σ	39Ar	1 σ	40Ar	1 σ
5F041P.01	770 °C	0.000242	0.000017	0.000242	0.000029	0.000138	0.000023	0.000424	0.000045	0.040000	0.000125
5F041P.02	870 °C	0.000243	0.000017	0.000243	0.000029	0.000139	0.000023	0.000426	0.000045	0.040000	0.000125
5F041P.03	970 °C	0.000243	0.000017	0.000244	0.000029	0.000139	0.000023	0.000426	0.000045	0.040000	0.000125
5F041P.04	1020 °C	0.000243	0.000017	0.000245	0.000029	0.000139	0.000023	0.000427	0.000045	0.040000	0.000125
5F041P.05	1070 °C	0.000244	0.000017	0.000245	0.000029	0.000140	0.000023	0.000428	0.000045	0.040000	0.000125
5F041P.06	1120 °C	0.000244	0.000017	0.000246	0.000029	0.000140	0.000023	0.000428	0.000045	0.040000	0.000125
5F041P.07	1190 °C	0.000244	0.000017	0.000247	0.000029	0.000140	0.000023	0.000429	0.000045	0.040000	0.000125
5F041P.08	1270 °C	0.000244	0.000017	0.000247	0.000029	0.000140	0.000023	0.000430	0.000045	0.040000	0.000125
5F041P.09	1370 °C	0.000245	0.000017	0.000248	0.000029	0.000141	0.000023	0.000430	0.000045	0.040000	0.000125
5F041P.10	1670 °C	0.000245	0.000017	0.000249	0.000029	0.000141	0.000023	0.000431	0.000045	0.040000	0.000125

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Intercept Values	36Ar			37Ar			38Ar			39Ar			40Ar							
	1 σ	r2		1 σ	r2		1 σ	r2		1 σ	r2		1 σ	r2						
5F041P.01 770 °C	0.002142	0.000016	0.8499	LIN # 1 7	0.007109	0.000042	0.0600	LIN # 1 2	0.000731	0.000018	0.1205	LIN # 1 2	0.013320	0.000056	0.9870	LIN # 1 2	0.567545	0.000415	0.9864	LIN # 1 9 10
5F041P.02 870 °C	0.003429	0.000024	0.8696	LIN # 1	0.029194	0.000060	0.9912	EXP # 1 6 12	0.001714	0.000050	0.4042	LIN # 1 14	0.061924	0.000062	0.9925	EXP # 1 4 8	0.937732	0.000422	0.9835	LIN # 1
5F041P.03 970 °C	0.003196	0.000031	0.7665	LIN # 1 2 4	0.065487	0.000049	0.9990	EXP # 4 6	0.003253	0.000032	0.6265	LIN # 1 2	0.207547	0.000089	0.9995	EXP # 10 13	0.924142	0.000369	0.9772	EXP # 1 10 11
5F041P.04 1020 °C	0.002257	0.000019	0.7066	LIN # 1 10	0.068463	0.000068	0.9979	LIN #	0.004027	0.000040	0.7729	LIN # 1	0.283535	0.000254	0.9983	LIN # 1	0.668835	0.000309	0.9890	LIN # 15
5F041P.05 1070 °C	0.002108	0.000022	0.3859	LIN # 1	0.080277	0.000060	0.9991	EXP # 3 12	0.004942	0.000025	0.9471	LIN # 1	0.358062	0.000188	0.9994	EXP # 1	0.660300	0.000347	0.9942	LIN # 1 3 4 9
5F041P.06 1120 °C	0.002083	0.000020	0.3239	LIN # 1	0.076794	0.000059	0.9990	EXP # 4 5 13	0.004671	0.000025	0.9367	LIN # 1	0.331965	0.000206	0.9993	EXP # 1 13	0.647038	0.000145	0.9987	EXP # 1 2 7
5F041P.07 1190 °C	0.002867	0.000018	0.8619	LIN # 1	0.077918	0.000060	0.9992	EXP # 5 7 9 12	0.004333	0.000015	0.9806	LIN # 1 5	0.284845	0.000128	0.9997	EXP # 1 6 11	0.840621	0.000331	0.7893	LIN # 1 7 12
5F041P.08 1270 °C	0.003070	0.000027	0.7732	LIN # 1 2	0.071759	0.000051	0.9991	EXP # 5 12	0.002955	0.000025	0.8301	LIN # 1 8 15	0.171948	0.000104	0.9991	EXP # 7 8 11 15	0.869922	0.000340	0.9609	LIN # 1 9 15
5F041P.09 1370 °C	0.004020	0.000024	0.8504	LIN # 1	0.073577	0.000092	0.9968	EXP # 2	0.002970	0.000033	0.6696	LIN #	0.150901	0.000141	0.9980	EXP # 1 2 3 11	1.140532	0.000330	0.9983	EXP # 1 2 3 4 11 13
5F041P.10 1670 °C	0.041226	0.000025	0.9992	EXP # 6 10	1.478912	0.000533	0.9997	EXP #	0.013389	0.000040	0.9357	LIN #	0.394186	0.000164	0.9988	EXP # 1 7 10	11.368984	0.003405	0.9997	EXP # 1 10 11

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Sample Parameters	Sample	Material	Location	Analyst	Temp	Standard (in Ma)	%1 σ	J	%1 σ	Fract	%1 σ	Volume Corr.	Sensitivity (mol/vol)	Day	Month	Year	Hour	Min	R resist	Irradiation	Project	Standard Name	
5F041P.01	770 °C	01TR53 B20	bas grndmss	/estaway Volcanii	msp	770	28.34	0.01	0.0003028	0.3	1.007	0.2	1	6.000E-14	30	07	2005	04	44	001	cl155-	Westaway	tcr-2a
5F041P.02	870 °C	01TR53 B20	bas grndmss	/estaway Volcanii	msp	870	28.34	0.01	0.0003028	0.3	1.007	0.2	1	6.000E-14	30	07	2005	05	42	001	cl155-	Westaway	tcr-2a
5F041P.03	970 °C	01TR53 B20	bas grndmss	/estaway Volcanii	msp	970	28.34	0.01	0.0003028	0.3	1.007	0.2	1	6.000E-14	30	07	2005	06	16	001	cl155-	Westaway	tcr-2a
5F041P.04	1020 °C	01TR53 B20	bas grndmss	/estaway Volcanii	msp	1020	28.34	0.01	0.0003028	0.3	1.007	0.2	1	6.000E-14	30	07	2005	06	49	001	cl155-	Westaway	tcr-2a
5F041P.05	1070 °C	01TR53 B20	bas grndmss	/estaway Volcanii	msp	1070	28.34	0.01	0.0003028	0.3	1.007	0.2	1	6.000E-14	30	07	2005	07	23	001	cl155-	Westaway	tcr-2a
5F041P.06	1120 °C	01TR53 B20	bas grndmss	/estaway Volcanii	msp	1120	28.34	0.01	0.0003028	0.3	1.007	0.2	1	6.000E-14	30	07	2005	07	56	001	cl155-	Westaway	tcr-2a
5F041P.07	1190 °C	01TR53 B20	bas grndmss	/estaway Volcanii	msp	1190	28.34	0.01	0.0003028	0.3	1.007	0.2	1	6.000E-14	30	07	2005	08	30	001	cl155-	Westaway	tcr-2a
5F041P.08	1270 °C	01TR53 B20	bas grndmss	/estaway Volcanii	msp	1270	28.34	0.01	0.0003028	0.3	1.007	0.2	1	6.000E-14	30	07	2005	09	04	001	cl155-	Westaway	tcr-2a
5F041P.09	1370 °C	01TR53 B20	bas grndmss	/estaway Volcanii	msp	1370	28.34	0.01	0.0003028	0.3	1.007	0.2	1	6.000E-14	30	07	2005	09	37	001	cl155-	Westaway	tcr-2a
5F041P.10	1670 °C	01TR53 B20	bas grndmss	/estaway Volcanii	msp	1670	28.34	0.01	0.0003028	0.3	1.007	0.2	1	6.000E-14	30	07	2005	10	11	001	cl155-	Westaway	tcr-2a

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Irradiation Constants		40/36(a)	%1 σ	38/36(a)	%1 σ	39/37(ca)	%1 σ	38/37(ca)	%1 σ	36/37(ca)	%1 σ	40/39(k)	%1 σ	38/39(k)	%1 σ	36/38(cl)	%1 σ	K/Ca	%1 σ	K/Cl	%1 σ	Ca/Cl	%1 σ
5F041P.01	770 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041P.02	870 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041P.03	970 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041P.04	1020 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041P.05	1070 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041P.06	1120 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041P.07	1190 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041P.08	1270 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041P.09	1370 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041P.10	1670 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0

Incremental Heating		36Ar(a)	37Ar(ca)	38Ar(cl)	39Ar(k)	40Ar(r)	Age ± 2σ (Ma)	40Ar(r) (%)	39Ar(k) (%)	K/Ca ± 2σ
5F041P.01	770 °C	0.00184	0.02858	0.00008	0.01279	0.00000	0.0 ± 0.0	0.00	0.57	0.219 ± 0.005
5F041P.02	870 °C	0.00307	0.12059	0.00022	0.06102	0.00000	0.0 ± 0.0	0.00	2.73	0.248 ± 0.003
5F041P.03	970 °C 4	0.00280	0.27188	0.00000	0.20560	0.05773	153.4 ± 64.1	6.53	9.20	0.371 ± 0.005
5F041P.04	1020 °C 4	0.00188	0.28441	0.00000	0.28109	0.07345	142.7 ± 33.6	11.68	12.58	0.484 ± 0.006
5F041P.05	1070 °C 4	0.00172	0.33381	0.00000	0.35511	0.11178	171.9 ± 28.0	18.02	15.90	0.521 ± 0.007
5F041P.06	1120 °C 4	0.00170	0.31942	0.00005	0.32919	0.10458	173.5 ± 28.8	17.23	14.74	0.505 ± 0.006
5F041P.07	1190 °C 4	0.00246	0.32426	0.00015	0.28237	0.07324	141.7 ± 35.6	9.15	12.64	0.427 ± 0.005
5F041P.08	1270 °C 4	0.00267	0.29869	0.00015	0.17021	0.04225	135.6 ± 71.0	5.09	7.62	0.279 ± 0.004
5F041P.09	1370 °C 4	0.00359	0.30642	0.00025	0.14929	0.04063	148.7 ± 88.3	3.69	6.68	0.239 ± 0.003
5F041P.10	1670 °C	0.03814	6.18170	0.00092	0.38704	0.05833	82.3 ± 262.0	0.51	17.33	0.031 ± 0.000
Σ		0.05986	8.46975	0.00182	2.23372	0.56198				

Information on Analysis		Results	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%),n	K/Ca ± 2σ
Sample	01TR53 B20	Weighted Plateau	0.2906 ± 0.0266 ± 9.16%	158.7 ± 14.6 ± 9.18%	0.71	79.37 7	0.342 ± 0.085
Material	bas grndmss						
Location	estaway Volcani						
Analyst	msp						
Project	Westaway	Total Fusion Age	0.2516 ± 0.0866 ± 34.41%	137.4 ± 47.3 ± 34.41%	1.0000	10	0.129 ± 0.001
Irradiation	cl155-						
J-value	0.0003028						
Standard	28.34						

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Normal Isochron		39(k)/36(a) ± 2σ	40(a+r)/36(a) ± 2σ	r.i.
5F041P.01	770 °C	7 ± 0	287 ± 8	0.924
5F041P.02	870 °C	20 ± 0	293 ± 7	0.981
5F041P.03	970 °C	4 74 ± 2	316 ± 9	0.990
5F041P.04	1020 °C	4 150 ± 5	335 ± 10	0.990
5F041P.05	1070 °C	4 206 ± 7	360 ± 13	0.993
5F041P.06	1120 °C	4 194 ± 7	357 ± 12	0.993
5F041P.07	1190 °C	4 115 ± 3	325 ± 8	0.986
5F041P.08	1270 °C	4 64 ± 2	311 ± 9	0.988
5F041P.09	1370 °C	4 42 ± 1	307 ± 7	0.981
5F041P.10	1670 °C	10 ± 0	297 ± 5	0.969

Inverse Isochron		39(k)/40(a+r) ± 2σ	36(a)/40(a+r) ± 2σ	r.i.
5F041P.01	770 °C	0.024251 ± 0.000291	0.003489 ± 0.000101	0.008
5F041P.02	870 °C	0.067974 ± 0.000328	0.003415 ± 0.000084	0.008
5F041P.03	970 °C	4 0.232567 ± 0.000979	0.003163 ± 0.000092	0.006
5F041P.04	1020 °C	4 0.447084 ± 0.002023	0.002989 ± 0.000093	0.008
5F041P.05	1070 °C	4 0.572604 ± 0.002470	0.002774 ± 0.000099	0.009
5F041P.06	1120 °C	4 0.542397 ± 0.002304	0.002801 ± 0.000097	0.003
5F041P.07	1190 °C	4 0.352732 ± 0.001485	0.003074 ± 0.000078	0.007
5F041P.08	1270 °C	4 0.205111 ± 0.000883	0.003212 ± 0.000090	0.006
5F041P.09	1370 °C	4 0.135664 ± 0.000612	0.003259 ± 0.000074	0.004
5F041P.10	1670 °C	0.034164 ± 0.000143	0.003367 ± 0.000055	0.005

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Isochron	291.7459 ± 6.6557 ± 2.28%	0.3174 ± 0.0556 ± 17.53%	173.4 ± 30.4 ± 17.54% External Error ± 30.4 Analytical Error ± 30.4	0.61
Statistics	Statistical F ratio Error Magnification n	2.21 1.0000 7	Convergence Number of Iterations Calculated Line	0.0000000066 9 Weighted York-2

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Isochron	291.7252 ± 6.6233 ± 2.27%	0.3183 ± 0.0545 ± 17.12%	173.9 ± 29.8 ± 17.13% External Error ± 29.8 Analytical Error ± 29.8	0.60
Statistics	Statistical F ratio Error Magnification n	2.21 1.0000 7	Convergence Number of Iterations Calculated Line	0.0000014616 3 Weighted York-2

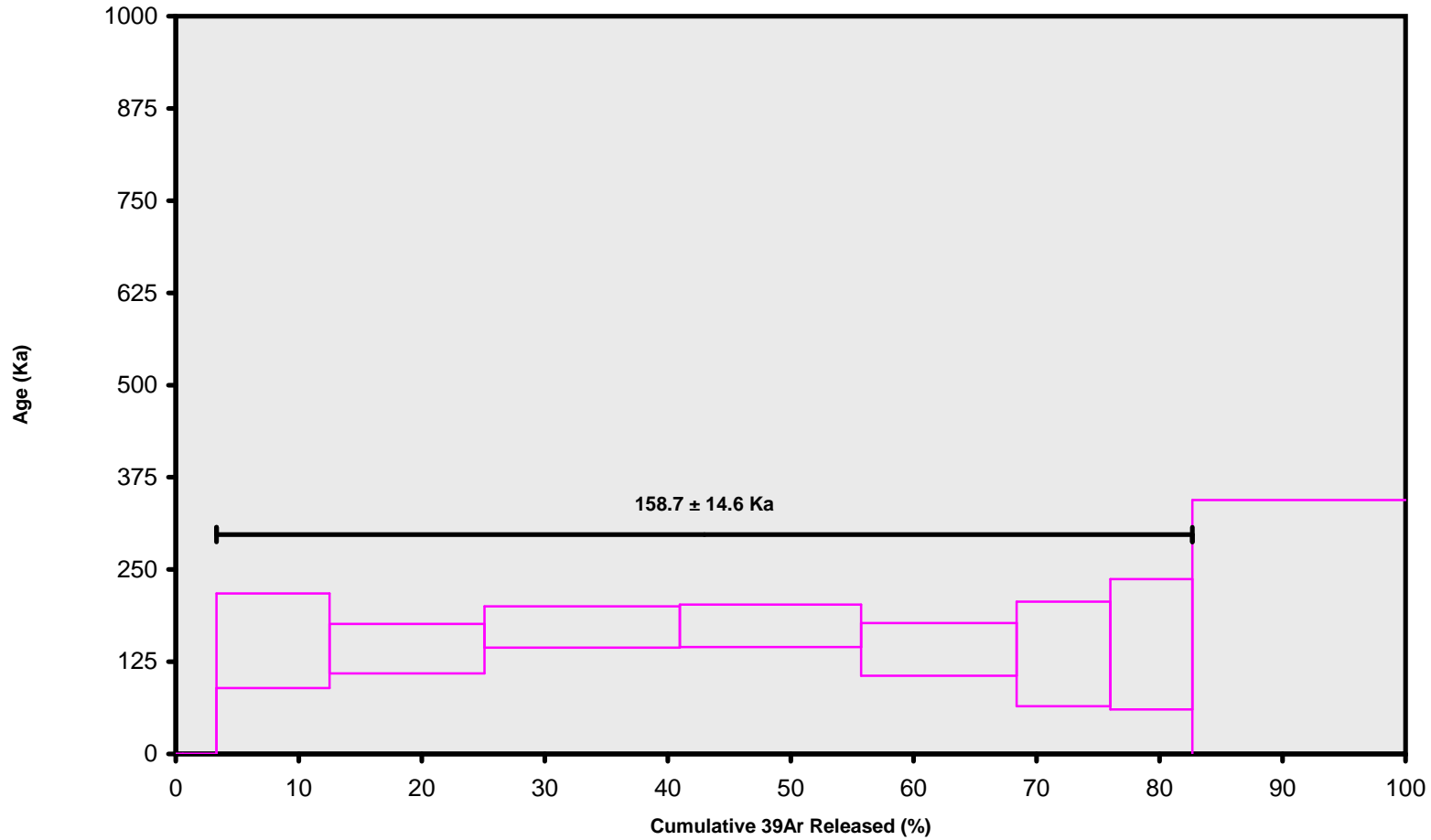
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Degassing Patterns		36Ar(a)	36Ar(ca)	36Ar(cl)	37Ar(ca)	38Ar(a)	38Ar(k)	38Ar(ca)	38Ar(cl)	39Ar(k)	39Ar(ca)	40Ar(r)	40Ar(a)	40Ar(k)
5F041P.01	770 °C	0.00184	0.00001	0.00000	0.02858	0.00034	0.00016	0.00000	0.00008	0.01279	0.00002	0.00000	0.54383	0.00000
5F041P.02	870 °C	0.00307	0.00003	0.00000	0.12059	0.00057	0.00076	0.00000	0.00022	0.06102	0.00008	0.00000	0.90584	0.00002
5F041P.03	970 °C 4	0.00280	0.00008	0.00000	0.27188	0.00052	0.00256	0.00001	0.00000	0.20560	0.00018	0.05773	0.82633	0.00008
5F041P.04	1020 °C 4	0.00188	0.00008	0.00000	0.28441	0.00035	0.00349	0.00001	0.00000	0.28109	0.00019	0.07345	0.55528	0.00011
5F041P.05	1070 °C 4	0.00172	0.00009	0.00000	0.33381	0.00032	0.00441	0.00001	0.00000	0.35511	0.00023	0.11178	0.50838	0.00014
5F041P.06	1120 °C 4	0.00170	0.00009	0.00000	0.31942	0.00032	0.00409	0.00001	0.00005	0.32919	0.00022	0.10458	0.50233	0.00013
5F041P.07	1190 °C 4	0.00246	0.00009	0.00000	0.32426	0.00046	0.00351	0.00001	0.00015	0.28237	0.00022	0.07324	0.72727	0.00011
5F041P.08	1270 °C 4	0.00267	0.00008	0.00000	0.29869	0.00050	0.00212	0.00001	0.00015	0.17021	0.00020	0.04225	0.78761	0.00007
5F041P.09	1370 °C 4	0.00359	0.00009	0.00000	0.30642	0.00067	0.00186	0.00001	0.00025	0.14929	0.00021	0.04063	1.05984	0.00006
5F041P.10	1670 °C	0.03814	0.00172	0.00000	6.18170	0.00713	0.00481	0.00021	0.00092	0.38704	0.00418	0.05833	11.27050	0.00015
Σ		0.05986	0.00236	0.00000	8.46975	0.01119	0.02777	0.00029	0.00182	2.23372	0.00573	0.56198	17.68722	0.00087
Σ				0.06222	8.46975				0.04106		2.23944			18.25007

Additional Ratios		40(r)/39(k)	1 σ	40(r+a)	1 σ	37Ar(decay)	39Ar(decay)	40Ar(moles)
5F041P.01	770 °C	0.00000	0.00000	0.52754	0.00043	4.249289	1.00051696	3.165E-14
5F041P.02	870 °C	0.00000	0.00000	0.89771	0.00044	4.252671	1.00051724	5.386E-14
5F041P.03	970 °C 4	0.28078	0.05870	0.88406	0.00039	4.254655	1.00051741	5.305E-14
5F041P.04	1020 °C 4	0.26129	0.03075	0.62873	0.00033	4.256581	1.00051757	3.773E-14
5F041P.05	1070 °C 4	0.31477	0.02559	0.62016	0.00037	4.258567	1.00051774	3.722E-14
5F041P.06	1120 °C 4	0.31769	0.02634	0.60691	0.00019	4.260495	1.00051790	3.642E-14
5F041P.07	1190 °C 4	0.25937	0.03260	0.80051	0.00035	4.262482	1.00051806	4.804E-14
5F041P.08	1270 °C 4	0.24819	0.06500	0.82986	0.00036	4.264470	1.00051823	4.980E-14
5F041P.09	1370 °C 4	0.27216	0.08085	1.10047	0.00035	4.266401	1.00051839	6.603E-14
5F041P.10	1670 °C	0.15071	0.23984	11.32883	0.00341	4.268391	1.00051856	6.797E-13

Age Plateau

RW5F041P.AGE >>> 01TR53 B20 >>> Westaway



Ar-Ages in Ka

Weighted Plateau
 158.7 ± 14.6
Total Fusion
 137.4 ± 47.3
Normal Isochron
 173.4 ± 30.4
Inverse Isochron
 173.9 ± 29.8

MSWD
0.71

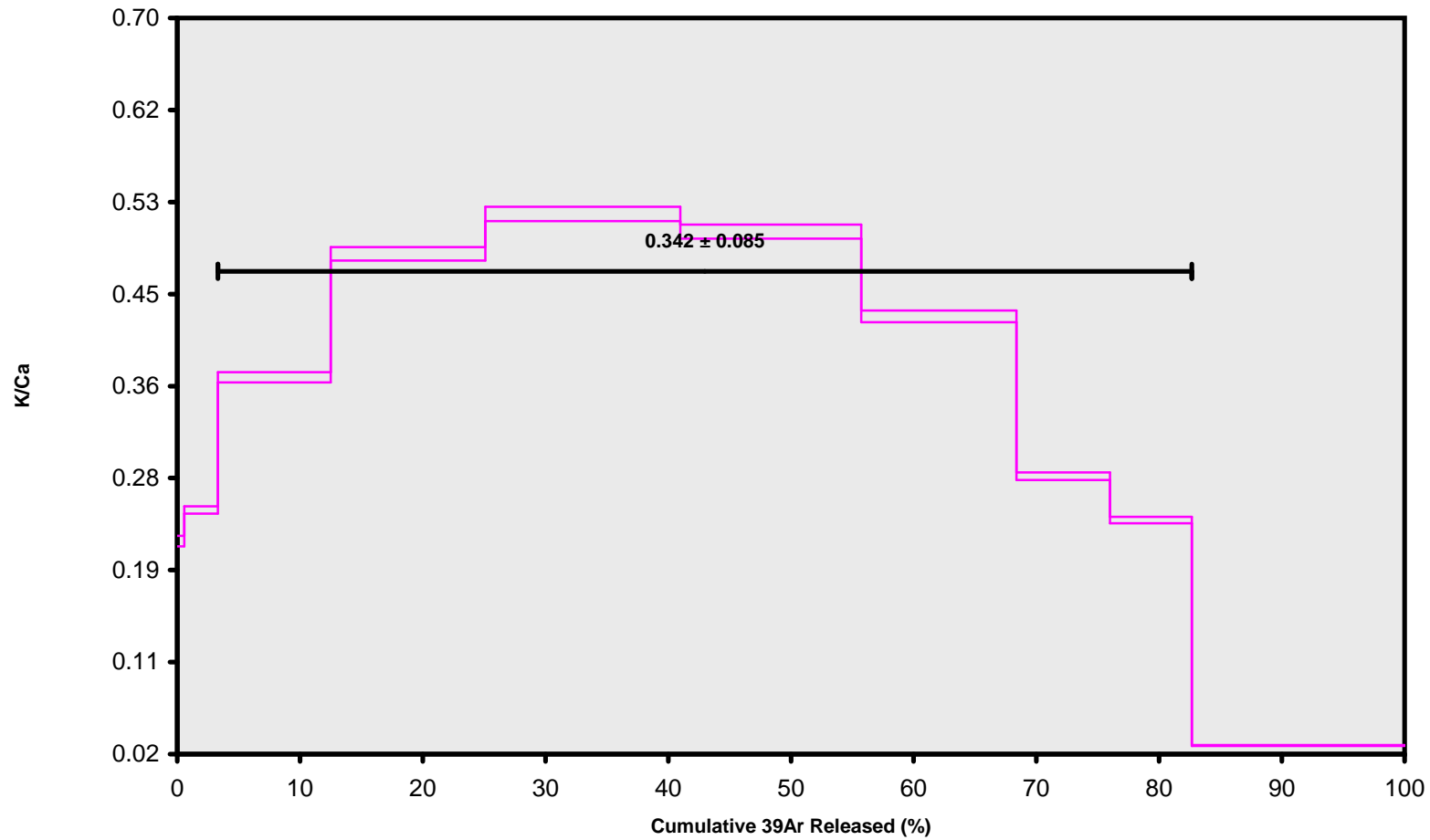
Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003028 (J)

K-Ca Plateau

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RW5F041P.AGE >>> 01TR53 B20 >>> Westaway



Ar-Ages in Ka

Weighted Plateau
 158.7 ± 14.6
Total Fusion
 137.4 ± 47.3
Normal Isochron
 173.4 ± 30.4
Inverse Isochron
 173.9 ± 29.8

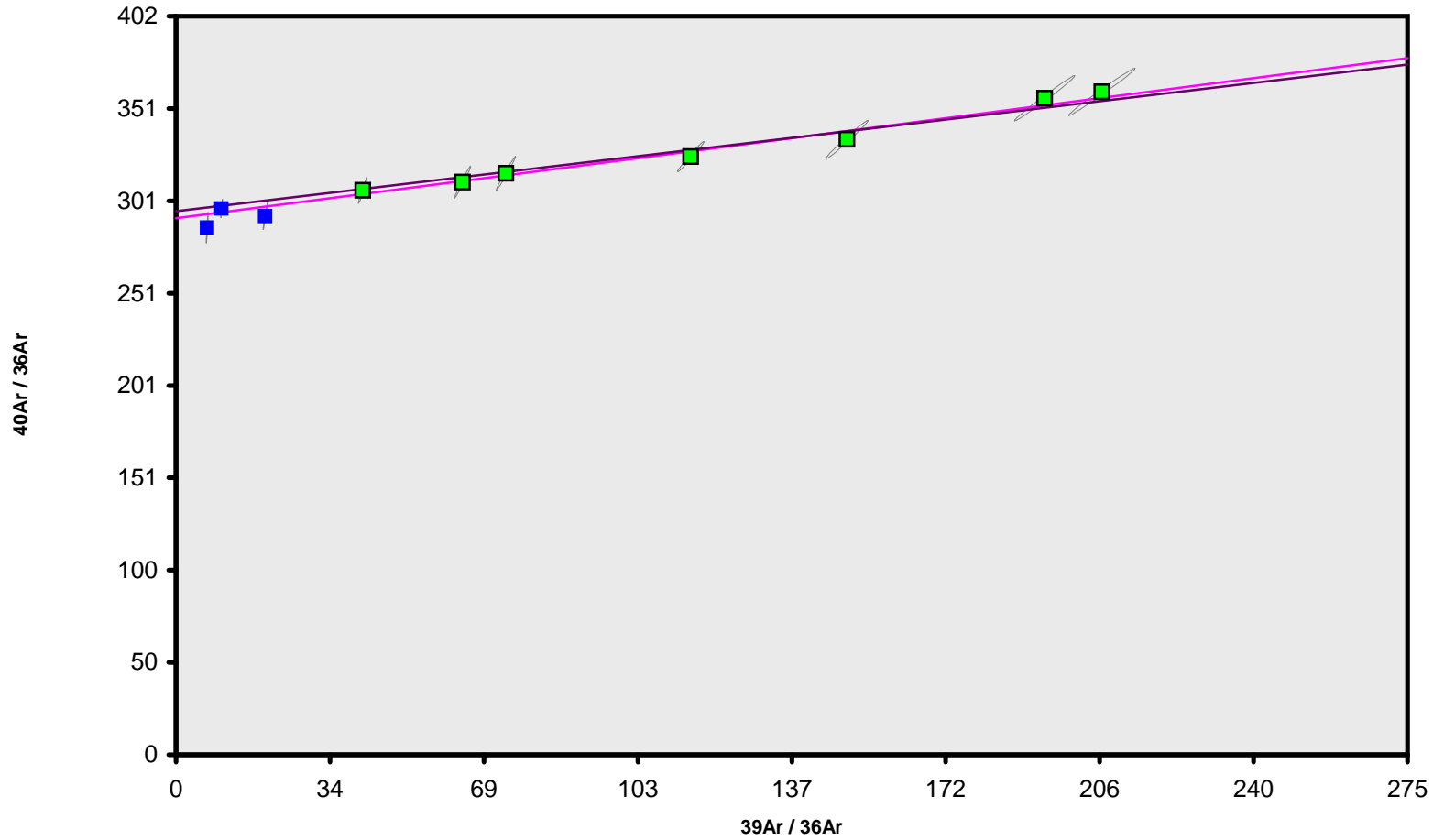
Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003028 (J)

Normal Isochron

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RW5F041P.AGE >>> 01TR53 B20 >>> Westaway



Ar-Ages in Ka

Weighted Plateau
 158.7 ± 14.6
Total Fusion
 137.4 ± 47.3
Normal Isochron
 173.4 ± 30.4
Inverse Isochron
 173.9 ± 29.8

MSWD
0.61

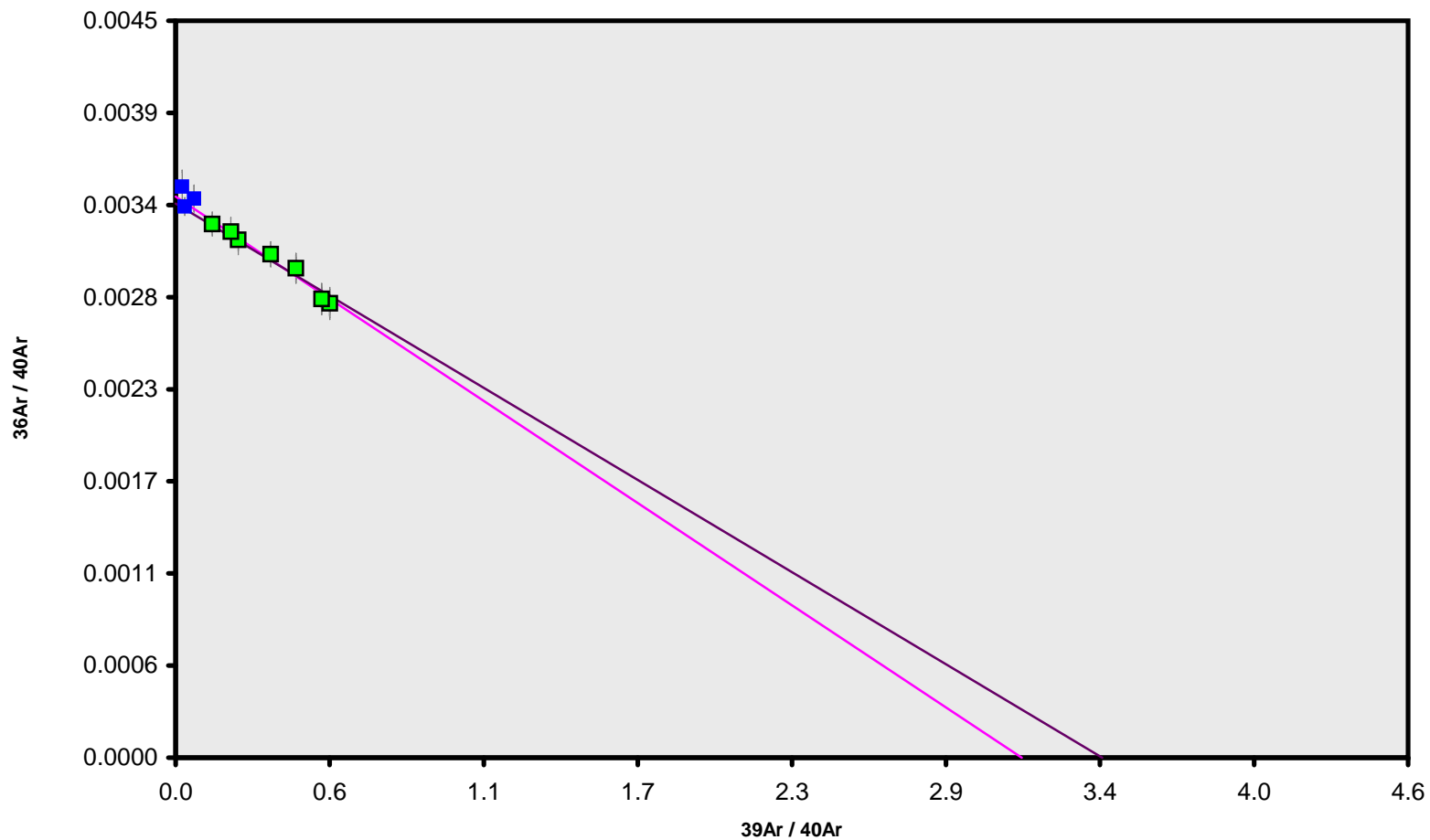
Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003028 (J)

Inverse Isochron

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MIT, Cambridge, USA

RW5F041P.AGE >>> 01TR53 B20 >>> Westaway



Ar-Ages in Ka

Weighted Plateau
 158.7 ± 14.6
Total Fusion
 137.4 ± 47.3
Normal Isochron
 173.4 ± 30.4
Inverse Isochron
 173.9 ± 29.8

MSWD
0.60

Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003028 (J)

Sample 03TR21

Data Tables

Procedure Blanks		36Ar	1 σ	37Ar	1 σ	38Ar	1 σ	39Ar	1 σ	40Ar	1 σ
5F041M.01	770 °C	0.000230	0.000017	0.000207	0.000034	0.000127	0.000024	0.000394	0.000038	0.040000	0.000122
5F041M.02	870 °C	0.000231	0.000017	0.000209	0.000034	0.000127	0.000024	0.000396	0.000038	0.040000	0.000122
5F041M.03	970 °C	0.000231	0.000017	0.000211	0.000034	0.000127	0.000024	0.000397	0.000038	0.040000	0.000122
5F041M.04	1020 °C	0.000231	0.000017	0.000213	0.000034	0.000128	0.000024	0.000398	0.000038	0.040000	0.000122
5F041M.05	1070 °C	0.000232	0.000017	0.000215	0.000034	0.000128	0.000024	0.000399	0.000038	0.040000	0.000122
5F041M.06	1120 °C	0.000232	0.000017	0.000216	0.000034	0.000128	0.000024	0.000400	0.000038	0.040000	0.000122
5F041M.07	1190 °C	0.000232	0.000017	0.000218	0.000034	0.000129	0.000024	0.000401	0.000038	0.040000	0.000122
5F041M.08	1270 °C	0.000233	0.000017	0.000220	0.000034	0.000129	0.000024	0.000403	0.000038	0.040000	0.000122
5F041M.09	1370 °C	0.000233	0.000017	0.000222	0.000034	0.000129	0.000024	0.000404	0.000038	0.040000	0.000122
5F041M.10	1670 °C	0.000233	0.000017	0.000224	0.000034	0.000130	0.000024	0.000405	0.000038	0.040000	0.000122

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Intercept Values	36Ar	1σ	r2		37Ar	1σ	r2		38Ar	1σ	r2		39Ar	1σ	r2		40Ar	1σ	r2		
5F041M.01	770 °C	0.002041	0.000022	0.5804	LIN # 1	0.007738	0.000015	0.0864	LIN # 1 2 15	0.000643	0.000034	0.0106	LIN # 1	0.007625	0.000042	0.9951	EXP # 1 15	0.558655	0.000593	0.9837	EXP # 1 2 4 9 11
5F041M.02	870 °C	0.002803	0.000029	0.7290	LIN #	0.036700	0.000039	0.9978	EXP # 1 5	0.001302	0.000019	0.4134	LIN # 1	0.049973	0.000056	0.9834	EXP # 1 3 10 12 1	0.777945	0.000377	0.0080	LIN # 1 2
5F041M.03	970 °C	0.002307	0.000012	0.8366	LIN # 1	0.091589	0.000095	0.9986	EXP # 1 6 9 11 15	0.003054	0.000030	0.7234	LIN # 1 15	0.209897	0.000214	0.9972	EXP #	0.741652	0.000366	0.9744	EXP # 1 14
5F041M.04	1020 °C	0.001719	0.000023	0.1339	LIN # 1	0.111823	0.000093	0.9989	EXP # 1 8	0.004015	0.000032	0.8470	LIN # 1 15	0.297452	0.000272	0.9982	EXP # 1	0.628357	0.000282	0.9978	EXP # 1 6 10
5F041M.05	1070 °C	0.001566	0.000015	0.1735	LIN # 13	0.146203	0.000107	0.9989	EXP #	0.004753	0.000025	0.9406	LIN # 1 14 15	0.357047	0.000176	0.9995	EXP # 1	0.614324	0.000302	0.9974	EXP # 5
5F041M.06	1120 °C	0.001431	0.000018	0.0035	LIN # 1 13	0.116670	0.000129	0.9977	LIN # 11	0.004110	0.000025	0.8904	LIN # 1 13	0.306541	0.000156	0.9995	EXP # 1 7	0.558668	0.000282	0.9988	EXP # 1 6 7
5F041M.07	1190 °C	0.001490	0.000021	0.0026	LIN #	0.074359	0.000074	0.9977	EXP #	0.003603	0.000033	0.8175	LIN # 15	0.260721	0.000146	0.9993	EXP # 1	0.553057	0.000154	0.9995	EXP # 1
5F041M.08	1270 °C	0.001689	0.000020	0.0908	LIN #	0.057733	0.000067	0.9971	LIN # 1	0.002991	0.000015	0.9086	LIN # 1 11 15	0.205999	0.000214	0.9976	EXP # 1 10	0.575979	0.000349	0.9971	EXP # 1 5
5F041M.09	1370 °C	0.001334	0.000022	0.0260	LIN #	0.057524	0.000084	0.9950	EXP #	0.002542	0.000022	0.6421	LIN #	0.174835	0.000121	0.9990	EXP # 1 3 14	0.455636	0.000287	0.9990	EXP # 1 7
5F041M.10	1670 °C	0.007130	0.000016	0.9833	EXP # 9 13	0.926481	0.000270	0.9999	EXP # 1	0.006026	0.000040	0.8442	LIN # 1	0.369766	0.000230	0.9992	EXP # 1 11 13	1.995365	0.000494	0.9994	EXP # 1 7 9 15

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Sample Parameters	Sample	Material	Location	Analyst	Temp	Standard (in Ma)	%1 σ	J	%1 σ	Fract	%1 σ	Volume Corr.	Sensitivity (mol/vol)	Day	Month	Year	Hour	Min	Resist	Irradiation	Project	Standard Name	
5F041M.01	770 °C	01TR21 B17	bas grndmss	Westaway	msp	770	28.34	0.01	0.0003142	0.3	1.007	0.2	1	6.000E-14	29	07	2005	03	00	001	cl155-	Westaway	tr-2a
5F041M.02	870 °C	01TR21 B17	bas grndmss	Westaway	msp	870	28.34	0.01	0.0003142	0.3	1.007	0.2	1	6.000E-14	29	07	2005	03	58	001	cl155-	Westaway	tr-2a
5F041M.03	970 °C	01TR21 B17	bas grndmss	Westaway	msp	970	28.34	0.01	0.0003142	0.3	1.007	0.2	1	6.000E-14	29	07	2005	04	31	001	cl155-	Westaway	tr-2a
5F041M.04	1020 °C	01TR21 B17	bas grndmss	Westaway	msp	1020	28.34	0.01	0.0003142	0.3	1.007	0.2	1	6.000E-14	29	07	2005	05	05	001	cl155-	Westaway	tr-2a
5F041M.05	1070 °C	01TR21 B17	bas grndmss	Westaway	msp	1070	28.34	0.01	0.0003142	0.3	1.007	0.2	1	6.000E-14	29	07	2005	05	39	001	cl155-	Westaway	tr-2a
5F041M.06	1120 °C	01TR21 B17	bas grndmss	Westaway	msp	1120	28.34	0.01	0.0003142	0.3	1.007	0.2	1	6.000E-14	29	07	2005	06	12	001	cl155-	Westaway	tr-2a
5F041M.07	1190 °C	01TR21 B17	bas grndmss	Westaway	msp	1190	28.34	0.01	0.0003142	0.3	1.007	0.2	1	6.000E-14	29	07	2005	06	46	001	cl155-	Westaway	tr-2a
5F041M.08	1270 °C	01TR21 B17	bas grndmss	Westaway	msp	1270	28.34	0.01	0.0003142	0.3	1.007	0.2	1	6.000E-14	29	07	2005	07	19	001	cl155-	Westaway	tr-2a
5F041M.09	1370 °C	01TR21 B17	bas grndmss	Westaway	msp	1370	28.34	0.01	0.0003142	0.3	1.007	0.2	1	6.000E-14	29	07	2005	07	53	001	cl155-	Westaway	tr-2a
5F041M.10	1670 °C	01TR21 B17	bas grndmss	Westaway	msp	1670	28.34	0.01	0.0003142	0.3	1.007	0.2	1	6.000E-14	29	07	2005	08	26	001	cl155-	Westaway	tr-2a

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Irradiation Constants		40/36(a)	%1σ	38/36(a)	%1σ	39/37(ca)	%1σ	38/37(ca)	%1σ	36/37(ca)	%1σ	40/39(k)	%1σ	38/39(k)	%1σ	36/38(cl)	%1σ	K/Ca	%1σ	K/Cl	%1σ	Ca/Cl	%1σ
5F041M.01	770 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041M.02	870 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041M.03	970 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041M.04	1020 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041M.05	1070 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041M.06	1120 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041M.07	1190 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041M.08	1270 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041M.09	1370 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041M.10	1670 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0

Incremental Heating		36Ar(a)	37Ar(ca)	38Ar(cl)	39Ar(k)	40Ar(r)	Age ± 2σ (Ma)	40Ar(r) (%)	39Ar(k) (%)	K/Ca ± 2σ
5F041M.01	770 °C	0.00175	0.03069	0.00009	0.00716	0.00046	36.3 ± 1415.5	0.09	0.32	0.114 ± 0.003
5F041M.02	870 °C	0.00246	0.14881	0.00008	0.04916	0.01065	122.8 ± 261.7	1.44	2.22	0.162 ± 0.002
5F041M.03	970 °C	4 0.00192	0.37280	0.00000	0.20790	0.13550	369.4 ± 41.6	19.31	9.38	0.273 ± 0.004
5F041M.04	1020 °C	4 0.00132	0.45555	0.00000	0.29483	0.19824	381.1 ± 34.0	33.69	13.30	0.317 ± 0.004
5F041M.05	1070 °C	4 0.00113	0.59615	0.00000	0.35395	0.23988	384.1 ± 22.8	41.77	15.97	0.291 ± 0.004
5F041M.06	1120 °C	4 0.00103	0.47576	0.00000	0.30385	0.21303	397.4 ± 28.2	41.07	13.71	0.313 ± 0.004
5F041M.07	1190 °C	4 0.00114	0.30304	0.00000	0.25844	0.17636	386.8 ± 36.1	34.37	11.66	0.418 ± 0.005
5F041M.08	1270 °C	4 0.00135	0.23518	0.00002	0.20411	0.13674	379.7 ± 45.6	25.51	9.21	0.425 ± 0.006
5F041M.09	1370 °C	4 0.00101	0.23443	0.00003	0.17315	0.11825	387.1 ± 54.0	28.45	7.81	0.362 ± 0.005
5F041M.10	1670 °C	0.00565	3.79111	0.00010	0.36442	0.28539	443.9 ± 53.0	14.60	16.44	0.047 ± 0.001
Σ		0.01876	6.64352	0.00033	2.21696	1.51450				

Information on Analysis		Results	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (% _n)	K/Ca ± 2σ
Sample	03TR21 B17	Weighted Plateau	0.6796 ± 0.0224 ± 3.29%	385.2 ± 12.9 ± 3.35%	0.24	81.02 7	0.326 ± 0.041
Material	bas grmdmss						
Location	Westaway						
Analyst	msh			External Error ± 12.9	2.45	Statistical T ratio	
				Analytical Error ± 12.7	1.0000	Error Magnification	
Project	Westaway	Total Fusion Age	0.6831 ± 0.0277 ± 4.06%	387.2 ± 15.9 ± 4.11%		10	0.164 ± 0.001
Irradiation	cl155-						
J-value	0.0003142						
Standard	28.34			External Error ± 15.9			
				Analytical Error ± 15.7			

Normal Isochron		39(k)/36(a) ± 2σ	40(a+r)/36(a) ± 2σ	r.i.
5F041M.01	770 °C	4 ± 0	296 ± 10	0.904
5F041M.02	870 °C	20 ± 1	300 ± 9	0.988
5F041M.03	970 °C	4	366 ± 10	0.985
5F041M.04	1020 °C	4	446 ± 20	0.995
5F041M.05	1070 °C	4	508 ± 22	0.995
5F041M.06	1120 °C	4	502 ± 25	0.996
5F041M.07	1190 °C	4	450 ± 22	0.996
5F041M.08	1270 °C	4	397 ± 16	0.993
5F041M.09	1370 °C	4	413 ± 23	0.997
5F041M.10	1670 °C	64 ± 1	346 ± 7	0.979

Inverse Isochron		39(k)/40(a+r) ± 2σ	36(a)/40(a+r) ± 2σ	r.i.
5F041M.01	770 °C	0.013814 ± 0.000224	0.003381 ± 0.000117	0.010
5F041M.02	870 °C	0.066616 ± 0.000331	0.003335 ± 0.000104	0.007
5F041M.03	970 °C	4	0.002730 ± 0.000074	0.010
5F041M.04	1020 °C	4	0.002244 ± 0.000102	0.005
5F041M.05	1070 °C	4	0.001970 ± 0.000084	0.007
5F041M.06	1120 °C	4	0.001994 ± 0.000098	0.007
5F041M.07	1190 °C	4	0.002221 ± 0.000108	0.003
5F041M.08	1270 °C	4	0.002521 ± 0.000104	0.010
5F041M.09	1370 °C	4	0.002421 ± 0.000134	0.009
5F041M.10	1670 °C	0.186382 ± 0.000793	0.002890 ± 0.000059	0.003

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Isochron	290.3121 ± 12.1434 ± 4.18%	0.7028 ± 0.0593 ± 8.43%	398.3 ± 33.7 ± 8.45% External Error ± 33.7 Analytical Error ± 33.6	0.14
Statistics	Statistical F ratio Error Magnification n	2.21 1.0000 7	Convergence Number of Iterations Calculated Line	0.000000390 14 Weighted York-2

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Isochron	290.2372 ± 12.1524 ± 4.19%	0.7034 ± 0.0592 ± 8.42%	398.7 ± 33.6 ± 8.44% External Error ± 33.6 Analytical Error ± 33.6	0.15
Statistics	Statistical F ratio Error Magnification n	2.21 1.0000 7	Convergence Number of Iterations Calculated Line	0.000002357 3 Weighted York-2

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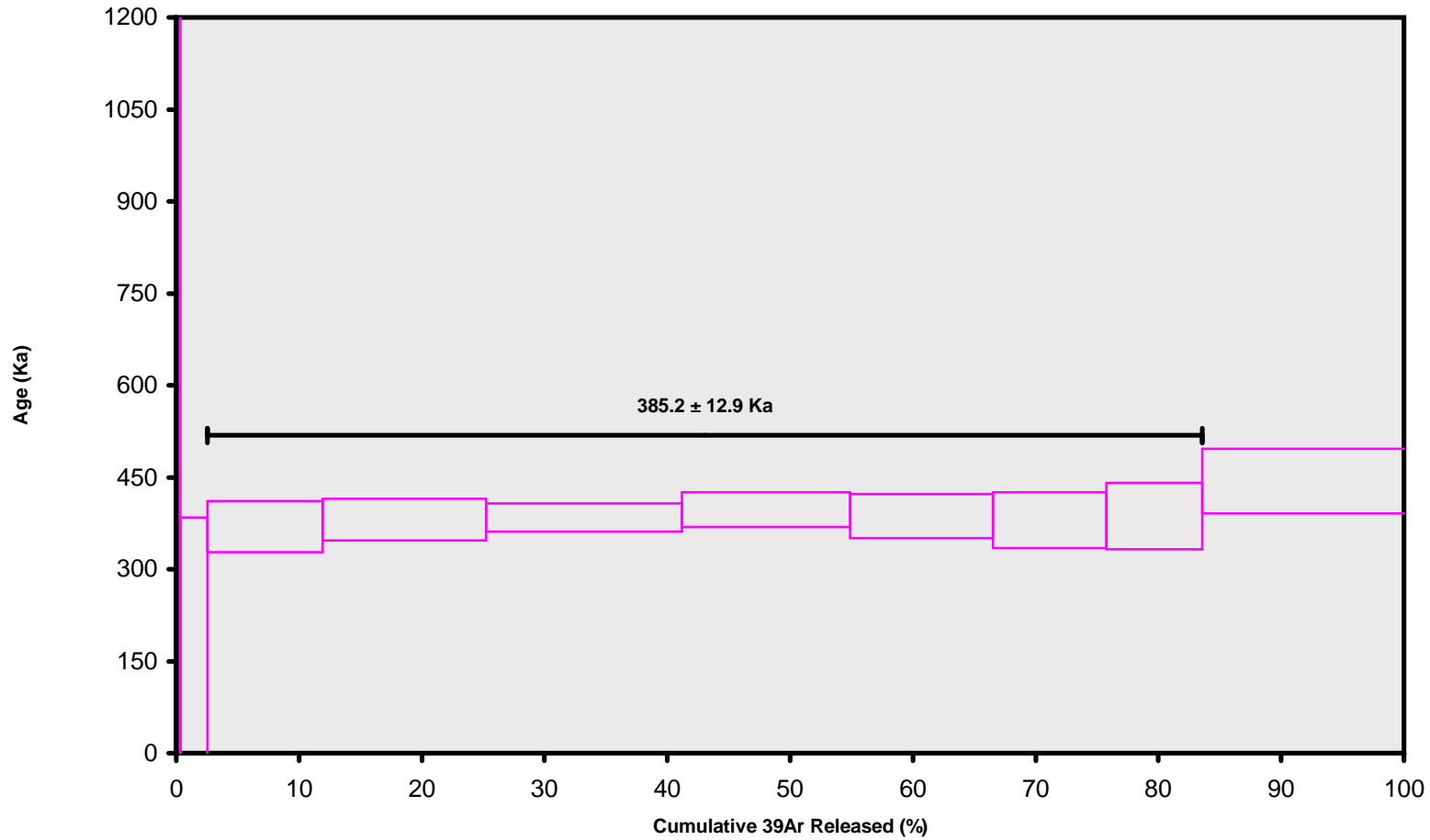
Degassing Patterns		36Ar(a)	36Ar(ca)	36Ar(cl)	37Ar(ca)	38Ar(a)	38Ar(k)	38Ar(ca)	38Ar(cl)	39Ar(k)	39Ar(ca)	40Ar(r)	40Ar(a)	40Ar(k)
5F041M.01	770 °C	0.00175	0.00001	0.00000	0.03069	0.00033	0.00009	0.00000	0.00009	0.00716	0.00002	0.00046	0.51819	0.00000
5F041M.02	870 °C	0.00246	0.00004	0.00000	0.14881	0.00046	0.00061	0.00001	0.00008	0.04916	0.00010	0.01065	0.72728	0.00002
5F041M.03	970 °C	4 0.00192	0.00010	0.00000	0.37280	0.00036	0.00258	0.00001	0.00000	0.20790	0.00025	0.13550	0.56607	0.00008
5F041M.04	1020 °C	4 0.00132	0.00013	0.00000	0.45555	0.00025	0.00366	0.00002	0.00000	0.29483	0.00031	0.19824	0.39000	0.00011
5F041M.05	1070 °C	4 0.00113	0.00017	0.00000	0.59615	0.00021	0.00440	0.00002	0.00000	0.35395	0.00040	0.23988	0.33431	0.00014
5F041M.06	1120 °C	4 0.00103	0.00013	0.00000	0.47576	0.00019	0.00378	0.00002	0.00000	0.30385	0.00032	0.21303	0.30552	0.00012
5F041M.07	1190 °C	4 0.00114	0.00008	0.00000	0.30304	0.00021	0.00321	0.00001	0.00000	0.25844	0.00020	0.17636	0.33660	0.00010
5F041M.08	1270 °C	4 0.00135	0.00007	0.00000	0.23518	0.00025	0.00254	0.00001	0.00002	0.20411	0.00016	0.13674	0.39916	0.00008
5F041M.09	1370 °C	4 0.00101	0.00007	0.00000	0.23443	0.00019	0.00215	0.00001	0.00003	0.17315	0.00016	0.11825	0.29732	0.00007
5F041M.10	1670 °C	0.00565	0.00106	0.00000	3.79111	0.00106	0.00453	0.00013	0.00010	0.36442	0.00256	0.28539	1.66983	0.00014
Σ		0.01876	0.00185	0.00000	6.64352	0.00351	0.02756	0.00023	0.00033	2.21696	0.00449	1.51450	5.54427	0.00086
Σ				0.02062	6.64352				0.03162		2.22145			7.05964

Additional Ratios		40(r)/39(k)	1σ	40(r+a)	1σ	37Ar(decay)	39Ar(decay)	40Ar(moles)
5F041M.01	770 °C	0.06410	1.24863	0.51865	0.00061	4.160242	1.00050939	3.112E-14
5F041M.02	870 °C	0.21666	0.23088	0.73793	0.00040	4.163553	1.00050967	4.428E-14
5F041M.03	970 °C	4 0.65178	0.03674	0.70157	0.00039	4.165438	1.00050983	4.210E-14
5F041M.04	1020 °C	4 0.67238	0.03001	0.58824	0.00031	4.167381	1.00051000	3.530E-14
5F041M.05	1070 °C	4 0.67773	0.02009	0.57419	0.00033	4.169325	1.00051017	3.446E-14
5F041M.06	1120 °C	4 0.70110	0.02487	0.51855	0.00031	4.171212	1.00051033	3.112E-14
5F041M.07	1190 °C	4 0.68240	0.03184	0.51296	0.00020	4.173158	1.00051049	3.078E-14
5F041M.08	1270 °C	4 0.66993	0.04022	0.53590	0.00037	4.175048	1.00051066	3.216E-14
5F041M.09	1370 °C	4 0.68294	0.04768	0.41557	0.00031	4.176995	1.00051082	2.494E-14
5F041M.10	1670 °C	0.78315	0.04672	1.95522	0.00051	4.178886	1.00051098	1.173E-13

Age Plateau

Clair
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RW5F041M.AGE >>> 03TR21 B17 >>> Westway



Ar-Ages in Ka

Weighted Plateau
 385.2 ± 12.9
Total Fusion
 387.2 ± 15.9
Normal Isochron
 398.3 ± 33.7
Inverse Isochron
 398.7 ± 33.6

MSWD
0.24

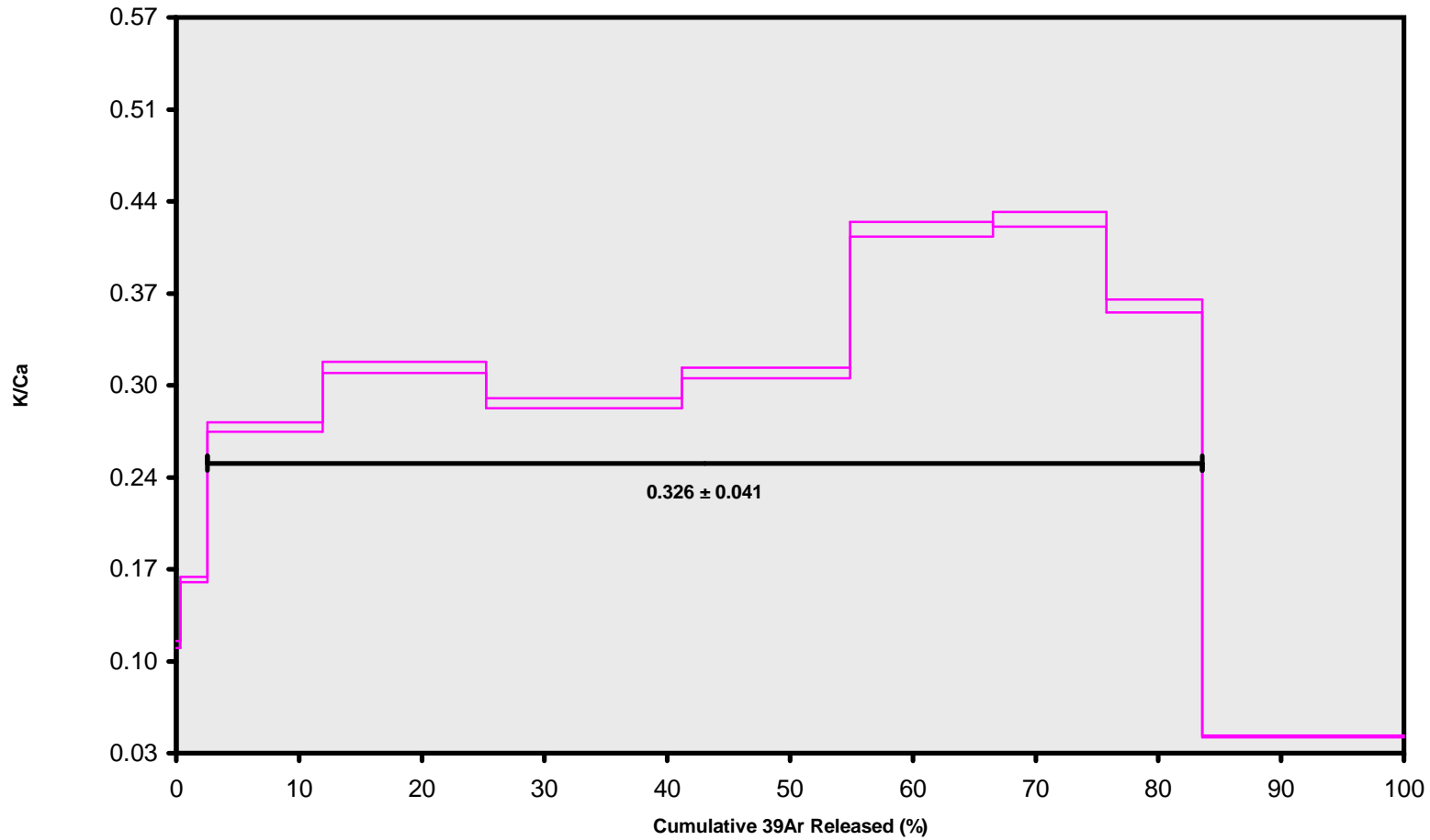
Sample Info

bas grndmss
Westway
msp
cl155-
0.0003142 (J)

K-Ca Plateau

Clair
MIT, Cambridge, USA

RW5F041M.AGE >>> 03TR21 B17 >>> Westway



Ar-Ages in Ka

Weighted Plateau
 385.2 ± 12.9
Total Fusion
 387.2 ± 15.9
Normal Isochron
 398.3 ± 33.7
Inverse Isochron
 398.7 ± 33.6

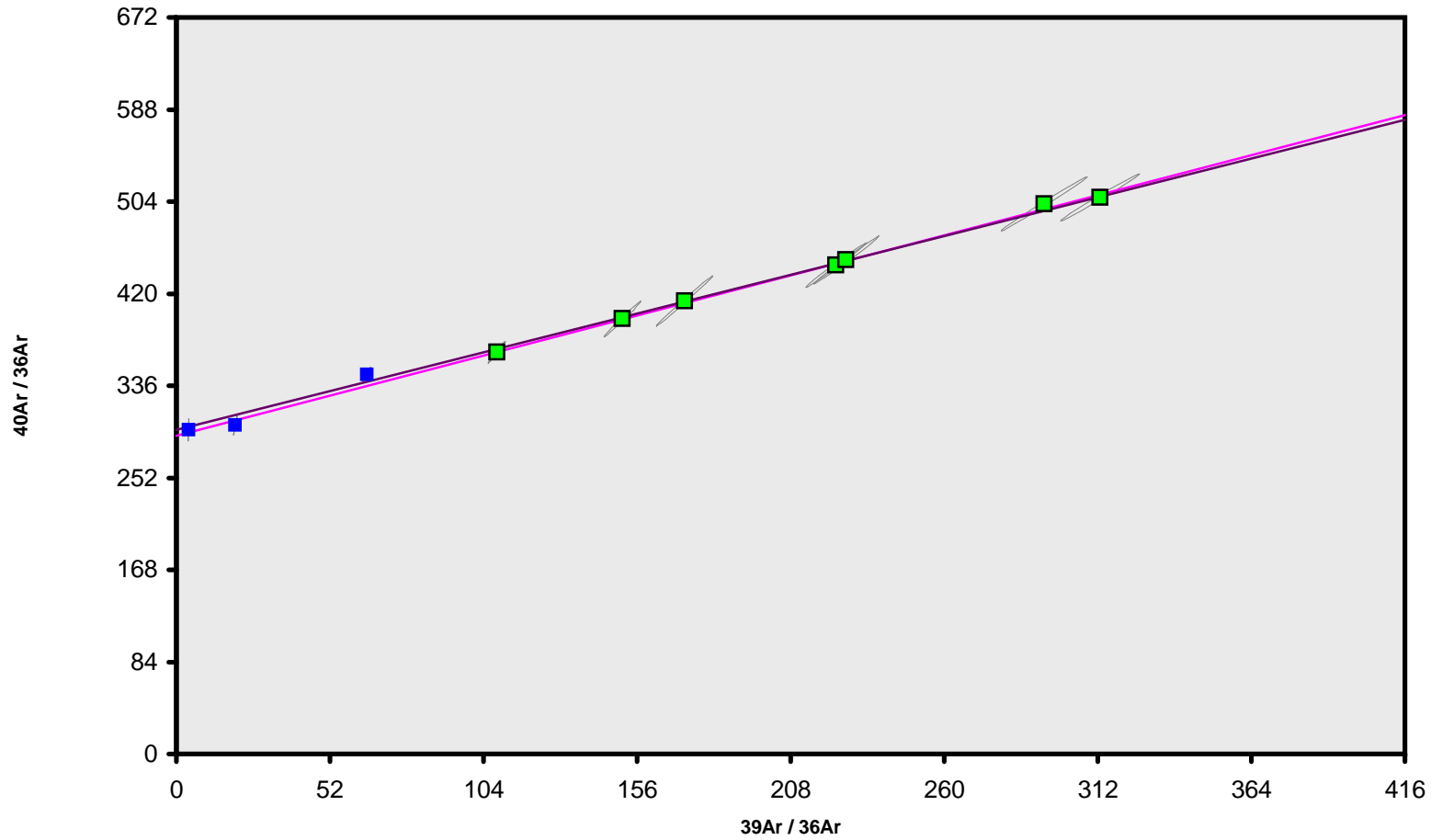
Sample Info

bas grndmss
Westway
msp
cl155-
0.0003142 (J)

Normal Isochron

Clair
MIT, Cambridge, USA

RW5F041M.AGE >>> 03TR21 B17 >>> Westway



Ar-Ages in Ka

Weighted Plateau
 385.2 ± 12.9

Total Fusion
 387.2 ± 15.9

Normal Isochron
 398.3 ± 33.7

Inverse Isochron
 398.7 ± 33.6

MSWD
0.14

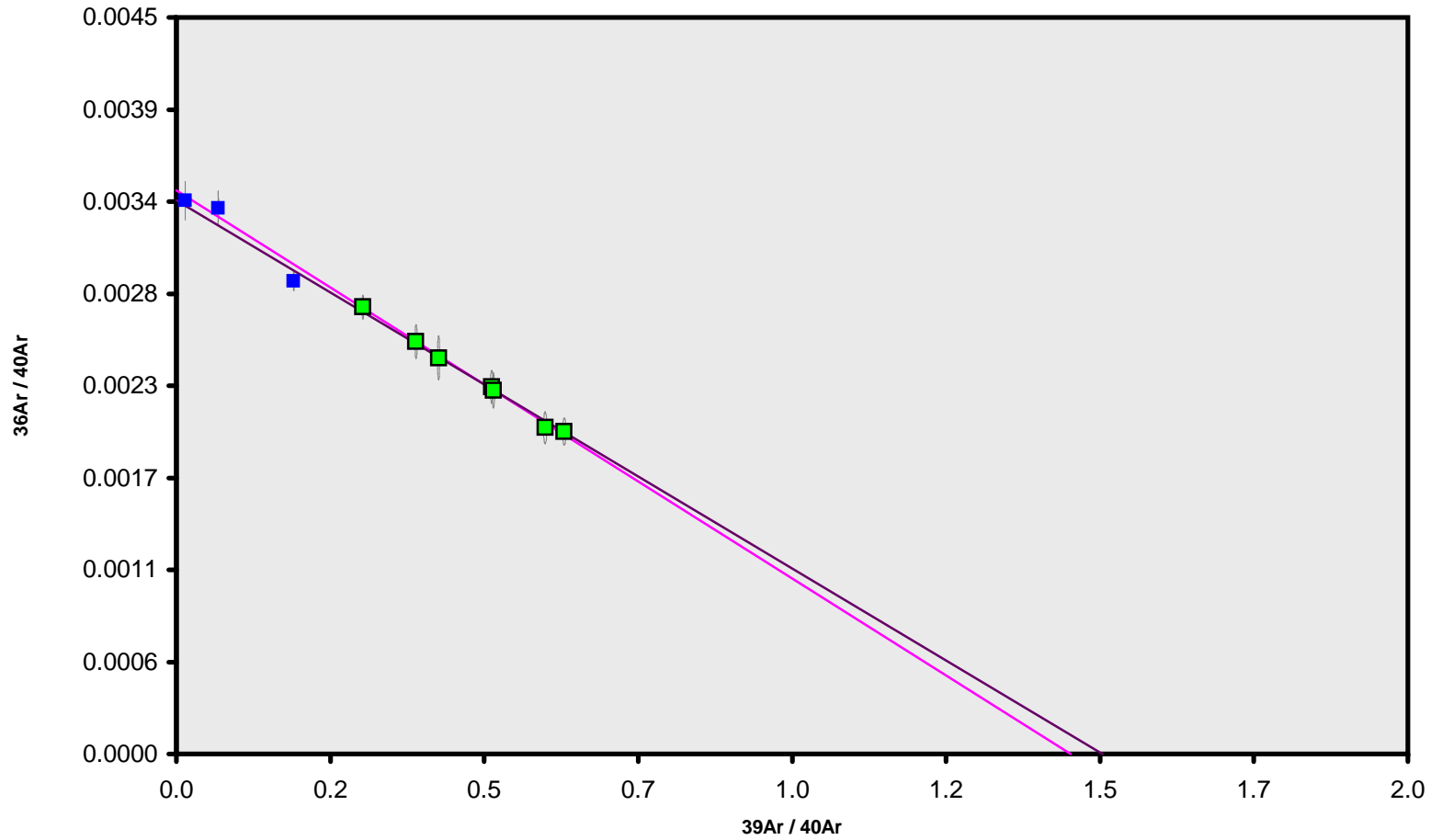
Sample Info

bas grndmss
Westway
msp
cl155-
0.0003142 (J)

Inverse Isochron

Clair
MIT, Cambridge, USA

RW5F041M.AGE >>> 03TR21 B17 >>> Westway



Ar-Ages in Ka

Weighted Plateau
 385.2 ± 12.9
Total Fusion
 387.2 ± 15.9
Normal Isochron
 398.3 ± 33.7
Inverse Isochron
 398.7 ± 33.6

MSWD
0.15

Sample Info

bas grndmss
Westway
msp
cl155-
0.0003142 (J)

Sample 01TR51

Data Tables

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Procedure Blanks		36Ar	1 σ	37Ar	1 σ	38Ar	1 σ	39Ar	1 σ	40Ar	1 σ
5F041O.01	770 °C	0.000239	0.000017	0.000234	0.000029	0.000135	0.000023	0.000415	0.000045	0.040000	0.000125
5F041O.02	870 °C	0.000239	0.000017	0.000235	0.000029	0.000135	0.000023	0.000416	0.000045	0.040000	0.000125
5F041O.03	970 °C	0.000240	0.000017	0.000236	0.000029	0.000136	0.000023	0.000417	0.000045	0.040000	0.000125
5F041O.04	1020 °C	0.000240	0.000017	0.000236	0.000029	0.000136	0.000023	0.000418	0.000045	0.040000	0.000125
5F041O.05	1070 °C	0.000240	0.000017	0.000237	0.000029	0.000136	0.000023	0.000418	0.000045	0.040000	0.000125
5F041O.06	1120 °C	0.000240	0.000017	0.000238	0.000029	0.000136	0.000023	0.000419	0.000045	0.040000	0.000125
5F041O.07	1190 °C	0.000241	0.000017	0.000238	0.000029	0.000137	0.000023	0.000420	0.000045	0.040000	0.000125
5F041O.08	1270 °C	0.000241	0.000017	0.000239	0.000029	0.000137	0.000023	0.000421	0.000045	0.040000	0.000125
5F041O.09	1370 °C	0.000241	0.000017	0.000240	0.000029	0.000137	0.000023	0.000421	0.000045	0.040000	0.000125
5F041O.10	1670 °C	0.000241	0.000017	0.000240	0.000029	0.000138	0.000023	0.000422	0.000045	0.040000	0.000125

Intercept Values	36Ar	1σ	r2		37Ar	1σ	r2		38Ar	1σ	r2		39Ar	1σ	r2		40Ar	1σ	r2		
5F0410.01	770 °C	0.002926	0.000015	0.7972	LIN # 1 2 15	0.011325	0.000049	0.8586	LIN # 1 2	0.001155	0.000027	0.0301	LIN # 1 2	0.026643	0.000033	0.9947	EXP # 1 8 13 15	0.818897	0.000574	0.9834	LIN # 1 5 6 7 8 9 11
5F0410.02	870 °C	0.002916	0.000032	0.6048	LIN # 1 2 3 15	0.038391	0.000087	0.9872	LIN # 1	0.002047	0.000037	0.4663	LIN # 1 2 15	0.089410	0.000140	0.9838	EXP # 1 2 3	0.846721	0.000365	0.9957	EXP # 1 6 11
5F0410.03	970 °C	0.002678	0.000012	0.8979	LIN # 1 2	0.084036	0.000075	0.9982	LIN #	0.004054	0.000037	0.8416	LIN # 1 2	0.270543	0.000212	0.9985	EXP # 1	0.908927	0.000365	0.9928	EXP # 1 4
5F0410.04	1020 °C	0.001863	0.000017	0.4744	LIN # 1 15	0.097004	0.000085	0.9985	LIN # 1 13	0.004579	0.000037	0.7907	LIN # 1 3	0.344398	0.000210	0.9992	LIN # 5	0.731224	0.000356	0.9974	LIN # 1
5F0410.05	1070 °C	0.001684	0.000029	0.1937	LIN # 1 5	0.113169	0.000165	0.9972	EXP # 1 5 8 13	0.005875	0.000033	0.9378	LIN # 1 5	0.451818	0.000302	0.9992	EXP # 7 13	0.747589	0.000263	0.9981	EXP # 1 8 12 13
5F0410.06	1120 °C	0.001373	0.000036	0.0154	LIN # 1 15	0.107717	0.000115	0.9978	EXP # 1	0.006396	0.000028	0.9552	LIN # 1 15	0.494018	0.000188	0.9997	EXP # 1	0.698369	0.000247	0.9988	EXP # 1 6 7
5F0410.07	1190 °C	0.001332	0.000017	0.0565	LIN # 1 15	0.084466	0.000108	0.9969	LIN # 1 15	0.006488	0.000035	0.9429	LIN # 1	0.494367	0.000298	0.9992	LIN #	0.691643	0.000282	0.9977	LIN # 1 13 14 15
5F0410.08	1270 °C	0.001434	0.000017	0.2053	LIN # 1	0.053495	0.000065	0.9974	EXP # 1 2	0.005156	0.000029	0.9272	LIN # 1	0.379445	0.000179	0.9996	EXP # 1	0.639314	0.000447	0.9951	EXP # 1 2
5F0410.09	1370 °C	0.001410	0.000017	0.0306	LIN # 1	0.063511	0.000100	0.9951	LIN # 1	0.003728	0.000039	0.7798	LIN # 1 5	0.259708	0.000102	0.9997	LIN # 1	0.549910	0.000298	0.9981	LIN # 1 9 15
5F0410.10	1670 °C	0.004251	0.000023	0.8511	LIN # 1	0.686409	0.000288	0.9997	EXP # 3	0.002171	0.000028	0.1387	LIN # 1	0.095884	0.000068	0.9966	EXP # 1 4 14	1.052886	0.000278	0.9394	EXP # 1 8

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Sample Parameters	Sample	Material	Location	Analyst	Temp	Standard (in Ma)	%1 σ	J	%1 σ	Fract	%1 σ	Volume Corr.	Sensitivity (mol/vol)	Day	Month	Year	Hour	Min	Resist	Irradiation	Project	Standard Name	
5F0410.01	770 °C	01TR51 B19	bas grndmss	/estaway Volcanic	msp	770	28.34	0.01	0.0003066	0.3	1.007	0.2	1	6.000E-14	29	07	2005	21	32	001	cl155-	Westaway	trc-2a
5F0410.02	870 °C	01TR51 B19	bas grndmss	/estaway Volcanic	msp	870	28.34	0.01	0.0003066	0.3	1.007	0.2	1	6.000E-14	29	07	2005	22	30	001	cl155-	Westaway	trc-2a
5F0410.03	970 °C	01TR51 B19	bas grndmss	/estaway Volcanic	msp	970	28.34	0.01	0.0003066	0.3	1.007	0.2	1	6.000E-14	29	07	2005	23	03	001	cl155-	Westaway	trc-2a
5F0410.04	1020 °C	01TR51 B19	bas grndmss	/estaway Volcanic	msp	1020	28.34	0.01	0.0003066	0.3	1.007	0.2	1	6.000E-14	29	07	2005	23	37	001	cl155-	Westaway	trc-2a
5F0410.05	1070 °C	01TR51 B19	bas grndmss	/estaway Volcanic	msp	1070	28.34	0.01	0.0003066	0.3	1.007	0.2	1	6.000E-14	30	07	2005	00	10	001	cl155-	Westaway	trc-2a
5F0410.06	1120 °C	01TR51 B19	bas grndmss	/estaway Volcanic	msp	1120	28.34	0.01	0.0003066	0.3	1.007	0.2	1	6.000E-14	30	07	2005	00	44	001	cl155-	Westaway	trc-2a
5F0410.07	1190 °C	01TR51 B19	bas grndmss	/estaway Volcanic	msp	1190	28.34	0.01	0.0003066	0.3	1.007	0.2	1	6.000E-14	30	07	2005	01	18	001	cl155-	Westaway	trc-2a
5F0410.08	1270 °C	01TR51 B19	bas grndmss	/estaway Volcanic	msp	1270	28.34	0.01	0.0003066	0.3	1.007	0.2	1	6.000E-14	30	07	2005	01	51	001	cl155-	Westaway	trc-2a
5F0410.09	1370 °C	01TR51 B19	bas grndmss	/estaway Volcanic	msp	1370	28.34	0.01	0.0003066	0.3	1.007	0.2	1	6.000E-14	30	07	2005	02	25	001	cl155-	Westaway	trc-2a
5F0410.10	1670 °C	01TR51 B19	bas grndmss	/estaway Volcanic	msp	1670	28.34	0.01	0.0003066	0.3	1.007	0.2	1	6.000E-14	30	07	2005	02	58	001	cl155-	Westaway	trc-2a

Irradiation Constants		40/36(a)	%1σ	38/36(a)	%1σ	39/37(ca)	%1σ	38/37(ca)	%1σ	36/37(ca)	%1σ	40/39(k)	%1σ	38/39(k)	%1σ	36/38(cl)	%1σ	K/Ca	%1σ	K/Cl	%1σ	Ca/Cl	%1σ
5F041O.01	770 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041O.02	870 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041O.03	970 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041O.04	1020 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041O.05	1070 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041O.06	1120 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041O.07	1190 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041O.08	1270 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041O.09	1370 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041O.10	1670 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0

Incremental Heating		36Ar(a)	37Ar(ca)	38Ar(cl)	39Ar(k)	40Ar(r)	Age ± 2σ (Ma)	40Ar(r) (%)	39Ar(k) (%)	K/Ca ± 2σ
5F0410.01	770 °C	0.00260	0.04589	0.00019	0.02603	0.01017	216.1 ± 378.6	1.31	0.90	0.278 ± 0.005
5F0410.02	870 °C	0.00256	0.15799	0.00030	0.08831	0.05021	314.4 ± 150.9	6.22	3.07	0.274 ± 0.004
5F0410.03	970 °C 4	0.00228	0.34714	0.00009	0.26815	0.19643	405.1 ± 33.5	22.61	9.31	0.379 ± 0.005
5F0410.04	1020 °C 4	0.00147	0.40104	0.00000	0.34149	0.25768	417.3 ± 25.6	37.28	11.86	0.417 ± 0.005
5F0410.05	1070 °C 4	0.00127	0.46825	0.00000	0.44818	0.33089	408.3 ± 25.3	46.76	15.56	0.469 ± 0.006
5F0410.06	1120 °C 4	0.00098	0.44585	0.00000	0.49012	0.36942	416.9 ± 26.4	56.11	17.02	0.539 ± 0.007
5F0410.07	1190 °C 4	0.00096	0.34956	0.00000	0.49053	0.36665	413.4 ± 16.4	56.27	17.03	0.688 ± 0.009
5F0410.08	1270 °C 4	0.00110	0.22112	0.00006	0.37643	0.27454	403.4 ± 21.7	45.81	13.07	0.834 ± 0.011
5F0410.09	1370 °C 4	0.00106	0.26283	0.00013	0.25744	0.19546	419.9 ± 31.9	38.33	8.94	0.480 ± 0.006
5F0410.10	1670 °C	0.00310	2.85161	0.00017	0.09292	0.09534	567.5 ± 146.6	9.41	3.23	0.016 ± 0.000
Σ		0.01739	5.55127	0.00096	2.87961	2.14678				

Information on Analysis		Results	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Sample	01TRS1 B19	Weighted Plateau	0.7446 ± 0.0163 ± 2.20%	411.8 ± 9.4 ± 2.28%	0.24	92.80 7	0.481 ± 0.094
Material	bas grndmss						
Location	estaway Volcani						
Analyst	msp				2.45		Statistical T ratio
					1.0000		Error Magnification
Project	Westaway	Total Fusion Age	0.7455 ± 0.0209 ± 2.81%	412.3 ± 11.8 ± 2.87%		10	0.254 ± 0.002
Irradiation	cl155-						
J-value	0.0003066						
Standard	28.34						

Normal Isochron		39(k)/36(a) ± 2σ	40(a+r)/36(a) ± 2σ	r.i.
5F041O.01	770 °C	10 ± 0	299 ± 7	0.967
5F041O.02	870 °C	34 ± 1	315 ± 10	0.986
5F041O.03	970 °C	118 ± 3	382 ± 9	0.984
5F041O.04	1020 °C	233 ± 9	471 ± 17	0.993
5F041O.05	1070 °C	352 ± 19	555 ± 30	0.997
5F041O.06	1120 °C	502 ± 41	674 ± 54	0.999
5F041O.07	1190 °C	509 ± 26	676 ± 34	0.996
5F041O.08	1270 °C	343 ± 16	545 ± 25	0.995
5F041O.09	1370 °C	242 ± 11	479 ± 23	0.996
5F041O.10	1670 °C	30 ± 1	326 ± 9	0.986

Inverse Isochron		39(k)/40(a+r) ± 2σ	36(a)/40(a+r) ± 2σ	r.i.
5F041O.01	770 °C	0.033417 ± 0.000202	0.003340 ± 0.000077	0.016
5F041O.02	870 °C	0.109477 ± 0.000579	0.003173 ± 0.000101	0.005
5F041O.03	970 °C	0.308638 ± 0.001360	0.002619 ± 0.000063	0.007
5F041O.04	1020 °C	0.494138 ± 0.002142	0.002122 ± 0.000077	0.008
5F041O.05	1070 °C	0.633541 ± 0.002727	0.001801 ± 0.000098	0.003
5F041O.06	1120 °C	0.744661 ± 0.003101	0.001485 ± 0.000120	0.002
5F041O.07	1190 °C	0.752979 ± 0.003231	0.001479 ± 0.000075	0.004
5F041O.08	1270 °C	0.628262 ± 0.002765	0.001833 ± 0.000083	0.012
5F041O.09	1370 °C	0.504972 ± 0.002164	0.002087 ± 0.000098	0.008
5F041O.10	1670 °C	0.091741 ± 0.000412	0.003066 ± 0.000082	0.003

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Isochron	294.3990 ± 9.5350 ± 3.24%	0.7478 ± 0.0345 ± 4.61%	413.6 ± 19.2 ± 4.65% External Error ± 19.2 Analytical Error ± 19.1	0.28
Statistics	Statistical F ratio Error Magnification n	2.21 1.0000 7	Convergence Number of Iterations Calculated Line	0.000000535 23 Weighted York-2

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Isochron	294.4007 ± 9.5347 ± 3.24%	0.7481 ± 0.0344 ± 4.60%	413.8 ± 19.2 ± 4.64% External Error ± 19.2 Analytical Error ± 19.0	0.28
Statistics	Statistical F ratio Error Magnification n	2.21 1.0000 7	Convergence Number of Iterations Calculated Line	0.000000978 3 Weighted York-2

Clair
MIT, Cambridge, USA

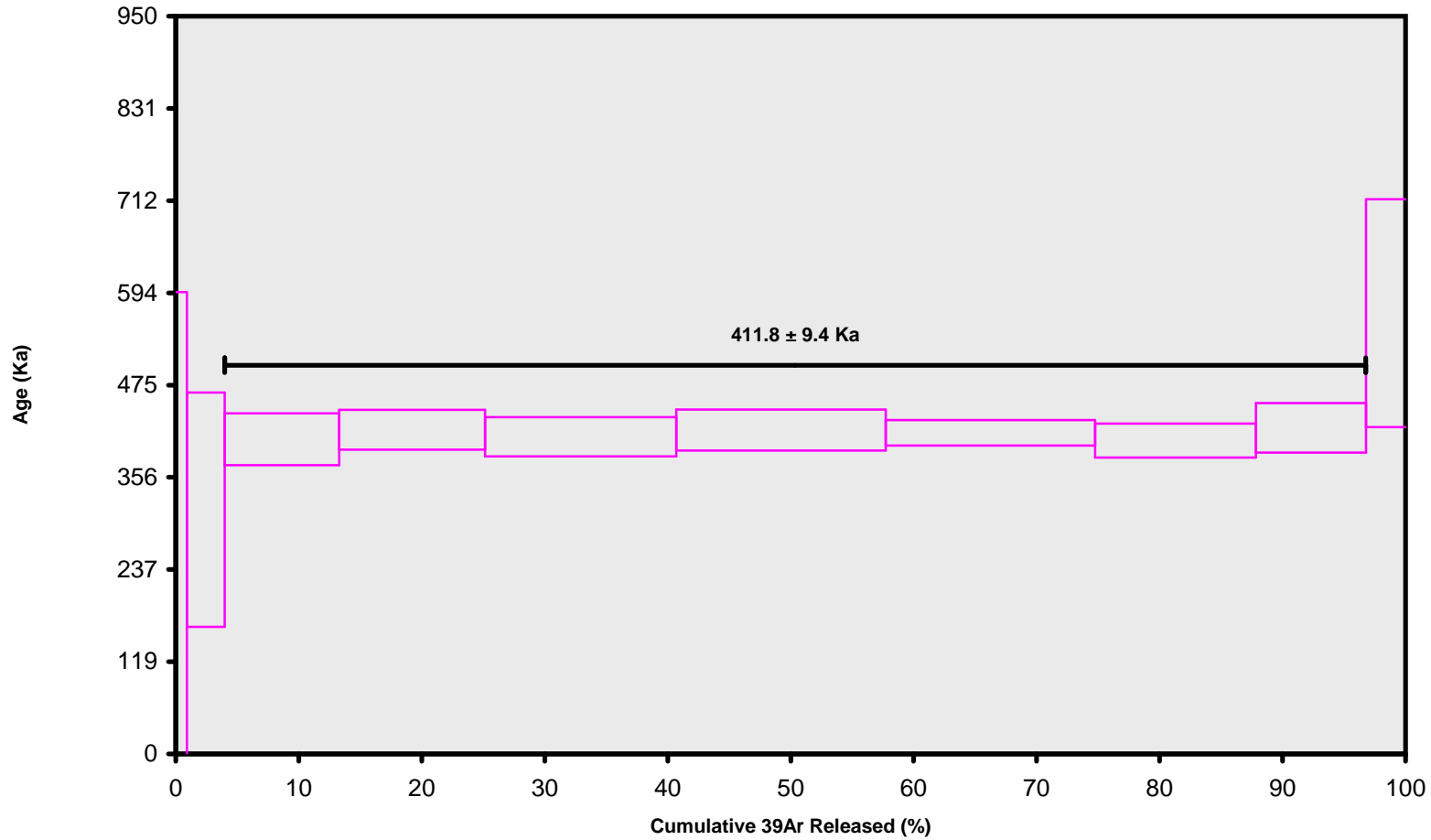
Degassing Patterns	36Ar(a)	36Ar(ca)	36Ar(cl)	37Ar(ca)	38Ar(a)	38Ar(k)	38Ar(ca)	38Ar(cl)	39Ar(k)	39Ar(ca)	40Ar(r)	40Ar(a)	40Ar(k)
5F041O.01 770 °C	0.00260	0.00001	0.00000	0.04589	0.00049	0.00032	0.00000	0.00019	0.02603	0.00003	0.01017	0.76872	0.00001
5F041O.02 870 °C	0.00256	0.00004	0.00000	0.15799	0.00048	0.00110	0.00001	0.00030	0.08831	0.00011	0.05021	0.75648	0.00003
5F041O.03 970 °C	4 0.00228	0.00010	0.00000	0.34714	0.00043	0.00333	0.00001	0.00009	0.26815	0.00023	0.19643	0.67240	0.00010
5F041O.04 1020 °C	4 0.00147	0.00011	0.00000	0.40104	0.00027	0.00424	0.00001	0.00000	0.34149	0.00027	0.25768	0.43341	0.00013
5F041O.05 1070 °C	4 0.00127	0.00013	0.00000	0.46825	0.00024	0.00557	0.00002	0.00000	0.44818	0.00032	0.33089	0.37652	0.00017
5F041O.06 1120 °C	4 0.00098	0.00012	0.00000	0.44585	0.00018	0.00609	0.00002	0.00000	0.49012	0.00030	0.36942	0.28876	0.00019
5F041O.07 1190 °C	4 0.00096	0.00010	0.00000	0.34956	0.00018	0.00610	0.00001	0.00000	0.49053	0.00024	0.36665	0.28480	0.00019
5F041O.08 1270 °C	4 0.00110	0.00006	0.00000	0.22112	0.00021	0.00468	0.00001	0.00006	0.37643	0.00015	0.27454	0.32463	0.00015
5F041O.09 1370 °C	4 0.00106	0.00007	0.00000	0.26283	0.00020	0.00320	0.00001	0.00013	0.25744	0.00018	0.19546	0.31435	0.00010
5F041O.10 1670 °C	0.00310	0.00080	0.00000	2.85161	0.00058	0.00115	0.00010	0.00017	0.09292	0.00193	0.09534	0.91751	0.00004
Σ	0.01739	0.00155	0.00000	5.55127	0.00325	0.03579	0.00019	0.00096	2.87961	0.00375	2.14678	5.13758	0.00112
Σ			0.01893	5.55127				0.04019		2.88336			7.28548

Additional Ratios	40(r)/39(k)	1σ	40(r+a)	1σ	37Ar(decay)	39Ar(decay)	40Ar(moles)
5F041O.01 770 °C	0.39071	0.34225	0.77889	0.00059	4.224184	1.00051484	4.673E-14
5F041O.02 870 °C	0.56849	0.13641	0.80669	0.00039	4.227546	1.00051512	4.840E-14
5F041O.03 970 °C	4 0.73252	0.03028	0.86882	0.00039	4.229460	1.00051528	5.214E-14
5F041O.04 1020 °C	4 0.75457	0.02310	0.69109	0.00038	4.231433	1.00051545	4.147E-14
5F041O.05 1070 °C	4 0.73831	0.02287	0.70741	0.00029	4.233349	1.00051561	4.246E-14
5F041O.06 1120 °C	4 0.75373	0.02383	0.65818	0.00028	4.235323	1.00051578	3.950E-14
5F041O.07 1190 °C	4 0.74745	0.01485	0.65145	0.00031	4.237299	1.00051595	3.910E-14
5F041O.08 1270 °C	4 0.72932	0.01965	0.59917	0.00046	4.239217	1.00051611	3.596E-14
5F041O.09 1370 °C	4 0.75923	0.02882	0.50981	0.00032	4.241195	1.00051627	3.059E-14
5F041O.10 1670 °C	1.02605	0.13258	1.01285	0.00031	4.243115	1.00051644	6.077E-14

Age Plateau

Clair
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RW5F041O.AGE >>> 01TR51 B19 >>> Westaway



Ar-Ages in Ka

Weighted Plateau
 411.8 ± 9.4
Total Fusion
 412.3 ± 11.8
Normal Isochron
 413.6 ± 19.2
Inverse Isochron
 413.8 ± 19.2

MSWD
0.24

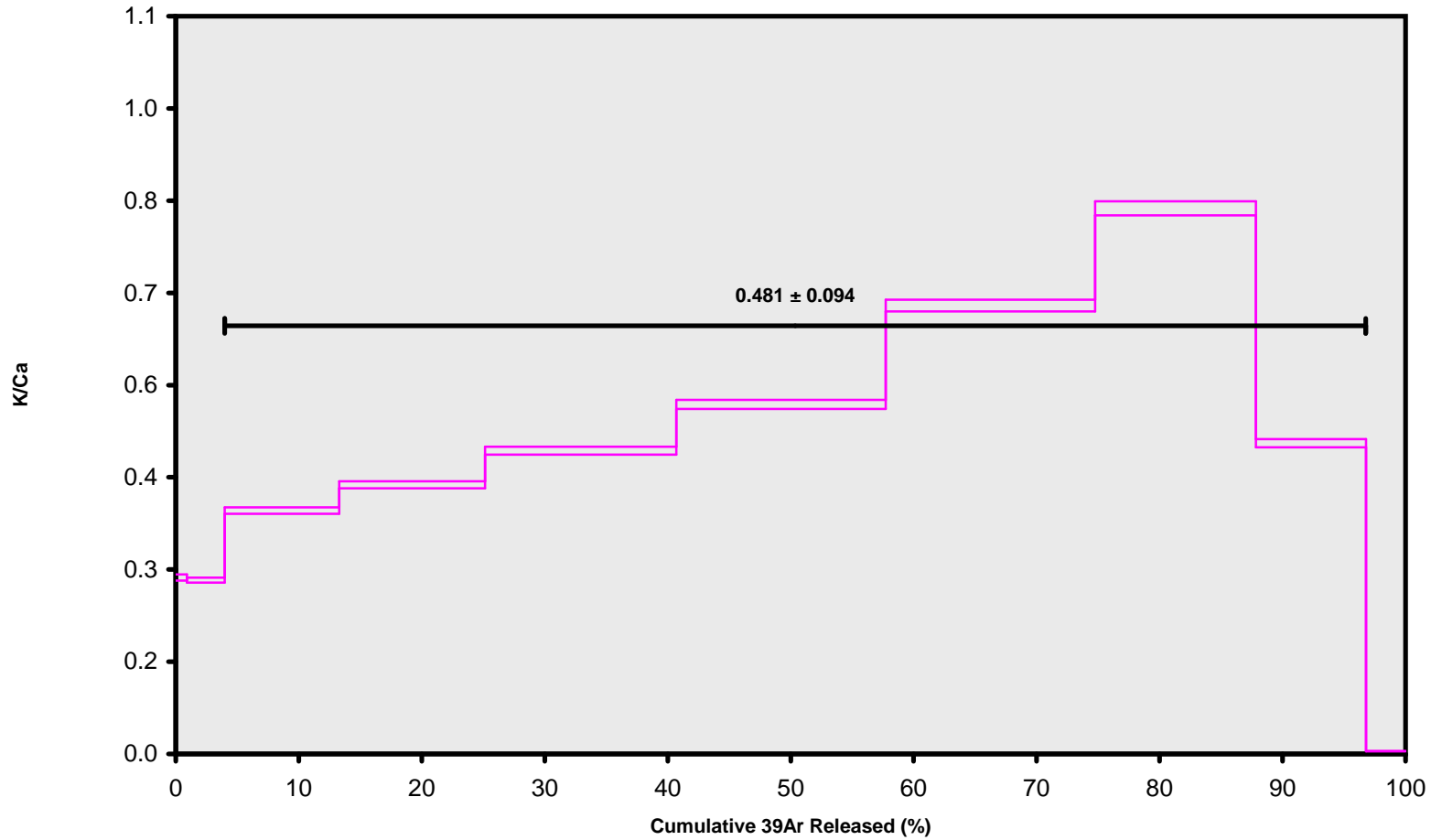
Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003066 (J)

K-Ca Plateau

Clair
MIT, Cambridge, USA

RW5F041O.AGE >>> 01TR51 B19 >>> Westaway



Ar-Ages in Ka

Weighted Plateau
 411.8 ± 9.4
Total Fusion
 412.3 ± 11.8
Normal Isochron
 413.6 ± 19.2
Inverse Isochron
 413.8 ± 19.2

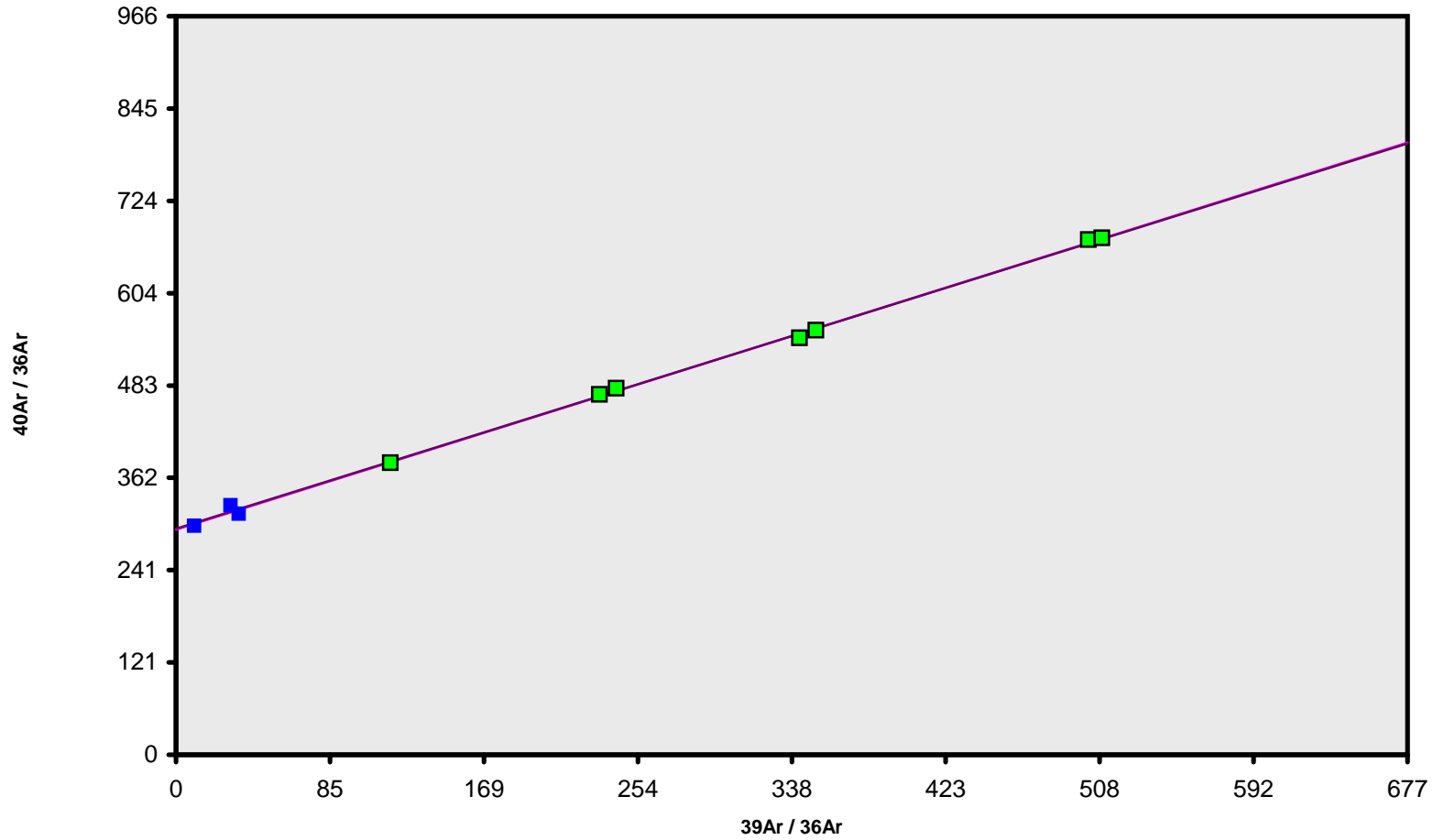
Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003066 (J)

Normal Isochron

Clair
MIT, Cambridge, USA

RW5F041O.AGE >>> 01TR51 B19 >>> Westaway



Ar-Ages in Ka

Weighted Plateau
 411.8 ± 9.4
Total Fusion
 412.3 ± 11.8
Normal Isochron
 413.6 ± 19.2
Inverse Isochron
 413.8 ± 19.2

MSWD
0.28

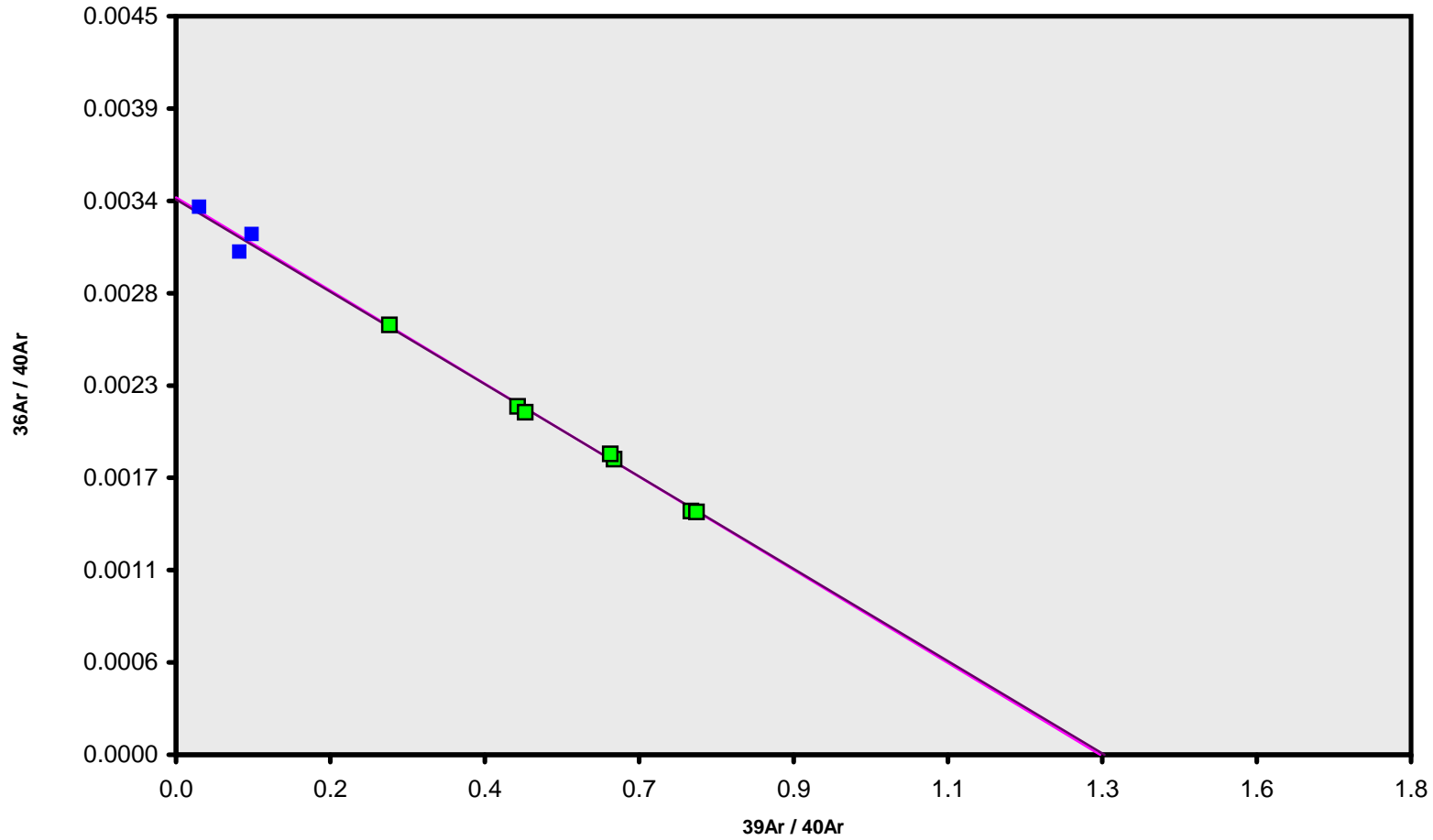
Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003066 (J)

Inverse Isochron

Clair
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RW5F041O.AGE >>> 01TR51 B19 >>> Westaway



Ar-Ages in Ka

Weighted Plateau

411.8 ± 9.4

Total Fusion

412.3 ± 11.8

Normal Isochron

413.6 ± 19.2

Inverse Isochron

413.8 ± 19.2

MSWD

0.28

Sample Info

bas grndmss

Westaway Volcanics

msp

cl155-

0.0003066 (J)

Sample 01TR47

Data Tables

Procedure Blanks		36Ar	1 σ	37Ar	1 σ	38Ar	1 σ	39Ar	1 σ	40Ar	1 σ
5F041N.01	770 °C	0.000235	0.000017	0.000226	0.000029	0.000132	0.000023	0.000406	0.000045	0.040000	0.000125
5F041N.02	870 °C	0.000236	0.000017	0.000227	0.000029	0.000132	0.000023	0.000408	0.000045	0.040000	0.000125
5F041N.03	970 °C	0.000236	0.000017	0.000228	0.000029	0.000132	0.000023	0.000408	0.000045	0.040000	0.000125
5F041N.04	1020 °C	0.000236	0.000017	0.000229	0.000029	0.000133	0.000023	0.000409	0.000045	0.040000	0.000125
5F041N.05	1070 °C	0.000237	0.000017	0.000229	0.000029	0.000133	0.000023	0.000410	0.000045	0.040000	0.000125
5F041N.06	1120 °C	0.000237	0.000017	0.000230	0.000029	0.000133	0.000023	0.000410	0.000045	0.040000	0.000125
5F041N.07	1190 °C	0.000237	0.000017	0.000230	0.000029	0.000133	0.000023	0.000411	0.000045	0.040000	0.000125
5F041N.08	1270 °C	0.000237	0.000017	0.000231	0.000029	0.000134	0.000023	0.000412	0.000045	0.040000	0.000125
5F041N.09	1370 °C	0.000238	0.000017	0.000232	0.000029	0.000134	0.000023	0.000413	0.000045	0.040000	0.000125
5F041N.10	1670 °C	0.000238	0.000017	0.000232	0.000029	0.000134	0.000023	0.000413	0.000045	0.040000	0.000125

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Intercept Values	36Ar				37Ar				38Ar				39Ar				40Ar				
	1σ	r2			1σ	r2			1σ	r2			1σ	r2			1σ	r2			
5F041N.01	770 °C	0.004099	0.000068	0.8540	LIN # 1 15	0.007450	0.000068	0.6852	LIN # 1	0.001321	0.000047	0.5304	LIN # 1 4 15	0.011758	0.000115	0.9947	LIN # 1 2 6	1.088700	0.001064	0.9937	LIN # 1
5F041N.02	870 °C	0.003375	0.000024	0.7250	LIN # 1	0.021044	0.000053	0.9770	EXP #	0.001339	0.000028	0.0006	LIN # 1	0.038871	0.000071	0.1652	LIN # 1 10 13	1.023606	0.000192	0.9990	EXP # 1 4 5 6 7
5F041N.03	970 °C	0.003928	0.000016	0.9338	LIN # 1 15	0.126123	0.000107	0.9984	EXP # 15	0.004404	0.000028	0.8957	LIN #	0.281025	0.000176	0.9992	EXP # 2 3	1.671114	0.000354	0.9996	EXP # 1 4 5
5F041N.04	1020 °C	0.002341	0.000020	0.2922	LIN #	0.124036	0.000042	0.9998	EXP #	0.004989	0.000031	0.7483	LIN # 1	0.376624	0.000251	0.9990	LIN # 1	1.410982	0.000322	0.9987	EXP # 1 4 13
5F041N.05	1070 °C	0.002457	0.000016	0.6681	LIN # 6	0.114290	0.000115	0.9978	EXP # 12	0.006452	0.000029	0.9403	EXP # 1 13	0.476428	0.000200	0.9996	EXP # 1	1.644046	0.000517	0.9983	EXP # 1 9 10
5F041N.06	1120 °C	0.002597	0.000017	0.3918	LIN #	0.087106	0.000082	0.9982	LIN # 6 9	0.006681	0.000023	0.9646	EXP # 5 14	0.487093	0.000236	0.9995	EXP # 1	1.725406	0.000399	0.9991	EXP # 1
5F041N.07	1190 °C	0.003804	0.000017	0.8969	LIN #	0.087850	0.000107	0.9963	LIN #	0.006592	0.000029	0.9144	LIN # 9	0.455461	0.000208	0.9995	EXP #	1.982543	0.000556	0.9990	EXP # 2
5F041N.08	1270 °C	0.005553	0.000029	0.8613	LIN #	0.079820	0.000059	0.9987	EXP #	0.004902	0.000033	0.8050	LIN #	0.250028	0.000142	0.9988	EXP #	2.056577	0.000581	0.9991	EXP # 1
5F041N.09	1370 °C	0.009033	0.000024	0.9785	EXP #	0.097998	0.000101	0.9982	LIN # 1 7 10	0.004406	0.000034	0.7396	LIN #	0.099959	0.000047	0.9957	EXP # 1 5 13	2.689610	0.000601	0.9997	EXP # 1 3
5F041N.10	1670 °C	0.039876	0.000052	0.9956	LIN #	0.825055	0.000271	0.9998	LIN #	0.011012	0.000034	0.9144	EXP # 5	0.090817	0.000122	0.9982	EXP # 1	11.294676	0.004774	0.9993	EXP # 1

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Sample Parameters	Sample	Material	Location	Analyst	Temp	Standard (in Ma)	%1 σ	J	%1 σ	Fract	%1 σ	Volume Corr.	Sensitivity (mol/vol)	Day	Month	Year	Hour	Min	Resist	Irradiation	Project	Standard Name	
5F041N.01	770 °C	01TR47 B18	bas grndmss	festaway Volcanii	msp	770	28.34	0.01	0.0003103	0.3	1.007	0.2	1	6.000E-14	29	07	2005	14	16	001	cl155-	Westaway	tcr-2a
5F041N.02	870 °C	01TR47 B18	bas grndmss	festaway Volcanii	msp	870	28.34	0.01	0.0003103	0.3	1.007	0.2	1	6.000E-14	29	07	2005	15	36	001	cl155-	Westaway	tcr-2a
5F041N.03	970 °C	01TR47 B18	bas grndmss	festaway Volcanii	msp	970	28.34	0.01	0.0003103	0.3	1.007	0.2	1	6.000E-14	29	07	2005	16	09	001	cl155-	Westaway	tcr-2a
5F041N.04	1020 °C	01TR47 B18	bas grndmss	festaway Volcanii	msp	1020	28.34	0.01	0.0003103	0.3	1.007	0.2	1	6.000E-14	29	07	2005	16	43	001	cl155-	Westaway	tcr-2a
5F041N.05	1070 °C	01TR47 B18	bas grndmss	festaway Volcanii	msp	1070	28.34	0.01	0.0003103	0.3	1.007	0.2	1	6.000E-14	29	07	2005	17	16	001	cl155-	Westaway	tcr-2a
5F041N.06	1120 °C	01TR47 B18	bas grndmss	festaway Volcanii	msp	1120	28.34	0.01	0.0003103	0.3	1.007	0.2	1	6.000E-14	29	07	2005	17	50	001	cl155-	Westaway	tcr-2a
5F041N.07	1190 °C	01TR47 B18	bas grndmss	festaway Volcanii	msp	1190	28.34	0.01	0.0003103	0.3	1.007	0.2	1	6.000E-14	29	07	2005	18	23	001	cl155-	Westaway	tcr-2a
5F041N.08	1270 °C	01TR47 B18	bas grndmss	festaway Volcanii	msp	1270	28.34	0.01	0.0003103	0.3	1.007	0.2	1	6.000E-14	29	07	2005	18	57	001	cl155-	Westaway	tcr-2a
5F041N.09	1370 °C	01TR47 B18	bas grndmss	festaway Volcanii	msp	1370	28.34	0.01	0.0003103	0.3	1.007	0.2	1	6.000E-14	29	07	2005	19	30	001	cl155-	Westaway	tcr-2a
5F041N.10	1670 °C	01TR47 B18	bas grndmss	festaway Volcanii	msp	1670	28.34	0.01	0.0003103	0.3	1.007	0.2	1	6.000E-14	29	07	2005	20	04	001	cl155-	Westaway	tcr-2a

Irradiation Constants		40/36(a)	%1σ	38/36(a)	%1σ	39/37(ca)	%1σ	38/37(ca)	%1σ	36/37(ca)	%1σ	40/39(k)	%1σ	38/39(k)	%1σ	36/38(cl)	%1σ	K/Ca	%1σ	K/Cl	%1σ	Ca/Cl	%1σ
5F041N.01	770 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041N.02	870 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041N.03	970 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041N.04	1020 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041N.05	1070 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041N.06	1120 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041N.07	1190 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041N.08	1270 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041N.09	1370 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0
5F041N.10	1670 °C	295.5	0	0.1869	0	0.000676	0	0.000034	0	0.000279	0	0.00039	0	0.01243	0	0	0	0.49	0	0	0	0	0

Incremental Heating	36Ar(a)	37Ar(ca)	38Ar(cl)	39Ar(k)	40Ar(r)	Age ± 2σ (Ma)	40Ar(r) (%)	39Ar(k) (%)	K/Ca ± 2σ
5F041N.01 770 °C	0.00375	0.02971	0.00033	0.01126	0.00000	0.0 ± 0.0	0.00	0.44	0.186 ± 0.006
5F041N.02 870 °C	0.00303	0.08571	0.00015	0.03816	0.08825	1294.2 ± 321.6	8.97	1.50	0.218 ± 0.003
5F041N.03 970 °C	0.00345	0.51856	0.00009	0.27846	0.61257	1231.1 ± 43.4	37.56	10.95	0.263 ± 0.003
5F041N.04 1020 °C	0.00190	0.51020	0.00000	0.37345	0.80794	1210.7 ± 27.3	58.93	14.68	0.359 ± 0.005
5F041N.05 1070 °C	0.00203	0.47025	0.00000	0.47263	1.00436	1189.2 ± 20.5	62.61	18.59	0.492 ± 0.006
5F041N.06 1120 °C	0.00220	0.35834	0.00003	0.48331	1.03627	1199.9 ± 20.6	61.48	19.00	0.661 ± 0.008
5F041N.07 1190 °C	0.00337	0.36157	0.00011	0.45187	0.94682	1172.6 ± 26.8	48.74	17.77	0.612 ± 0.008
5F041N.08 1270 °C	0.00508	0.32858	0.00066	0.24779	0.51571	1164.7 ± 70.0	25.57	9.74	0.370 ± 0.005
5F041N.09 1370 °C	0.00844	0.40381	0.00139	0.09863	0.15461	877.3 ± 244.8	5.84	3.88	0.120 ± 0.002
5F041N.10 1670 °C	0.03761	3.40842	0.00249	0.08752	0.14154	905.1 ± 1160.9	1.26	3.44	0.013 ± 0.000
Σ	0.07085	6.47516	0.00526	2.54307	5.30806				

Information on Analysis		Results	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%),n	K/Ca ± 2σ			
Sample	01TR47 B18	Weighted Plateau	2.1355 ± 0.0252 ± 1.18%	1195.1 ± 15.8 ± 1.32%	1.64	90.74 6	0.374 ± 0.109			
Material	bas gmdmss							External Error ± 15.8	2.57	Statistical T ratio
Location	estaway Volcani							Analytical Error ± 14.1	1.2789	Error Magnification
Analyst	msp									
Project	Westaway	Total Fusion Age	2.0873 ± 0.0768 ± 3.68%	1168.1 ± 43.5 ± 3.73%		10	0.192 ± 0.001			
Irradiation	cl155-							External Error ± 43.5		
J-value	0.0003103							Analytical Error ± 43.0		
Standard	28.34									

Normal Isochron		39(k)/36(a) ± 2σ	40(a+r)/36(a) ± 2σ	r.i.
5F041N.01	770 °C	3 ± 0	280 ± 11	0.870
5F041N.02	870 °C	13 ± 0	325 ± 8	0.972
5F041N.03	970 °C	4 81 ± 2	473 ± 10	0.980
5F041N.04	1020 °C	4 196 ± 6	720 ± 23	0.991
5F041N.05	1070 °C	4 233 ± 7	791 ± 22	0.989
5F041N.06	1120 °C	4 220 ± 6	767 ± 20	0.988
5F041N.07	1190 °C	4 134 ± 3	577 ± 12	0.982
5F041N.08	1270 °C	4 49 ± 1	397 ± 8	0.980
5F041N.09	1370 °C	12 ± 0	314 ± 5	0.971
5F041N.10	1670 °C	2 ± 0	299 ± 5	0.954

Inverse Isochron		39(k)/40(a+r) ± 2σ	36(a)/40(a+r) ± 2σ	r.i.
5F041N.01	770 °C	0.010736 ± 0.000240	0.003576 ± 0.000141	0.005
5F041N.02	870 °C	0.038794 ± 0.000231	0.003080 ± 0.000075	0.001
5F041N.03	970 °C	4 0.170728 ± 0.000723	0.002113 ± 0.000044	0.002
5F041N.04	1020 °C	4 0.272422 ± 0.001160	0.001390 ± 0.000044	0.002
5F041N.05	1070 °C	4 0.294685 ± 0.001222	0.001265 ± 0.000035	0.004
5F041N.06	1120 °C	4 0.286791 ± 0.001191	0.001303 ± 0.000035	0.002
5F041N.07	1190 °C	4 0.232641 ± 0.000966	0.001734 ± 0.000037	0.004
5F041N.08	1270 °C	4 0.122881 ± 0.000519	0.002519 ± 0.000052	0.004
5F041N.09	1370 °C	0.037226 ± 0.000158	0.003187 ± 0.000055	0.003
5F041N.10	1670 °C	0.007776 ± 0.000040	0.003342 ± 0.000055	0.009

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Isochron	295.0053 ± 8.9624 ± 3.04%	2.1375 ± 0.0604 ± 2.82%	1196.2 ± 34.5 ± 2.89% External Error ± 34.5 Analytical Error ± 33.8	2.03
Statistics	Statistical F ratio Error Magnification n	2.37 1.4250 6	Convergence Number of Iterations Calculated Line	0.0000001583 27 Weighted York-2

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Isochron	295.2142 ± 8.9979 ± 3.05%	2.1373 ± 0.0605 ± 2.83%	1196.1 ± 34.6 ± 2.89% External Error ± 34.6 Analytical Error ± 33.8	2.04
Statistics	Statistical F ratio Error Magnification n	2.37 1.4291 6	Convergence Number of Iterations Calculated Line	0.0000000617 3 Weighted York-2

Clair
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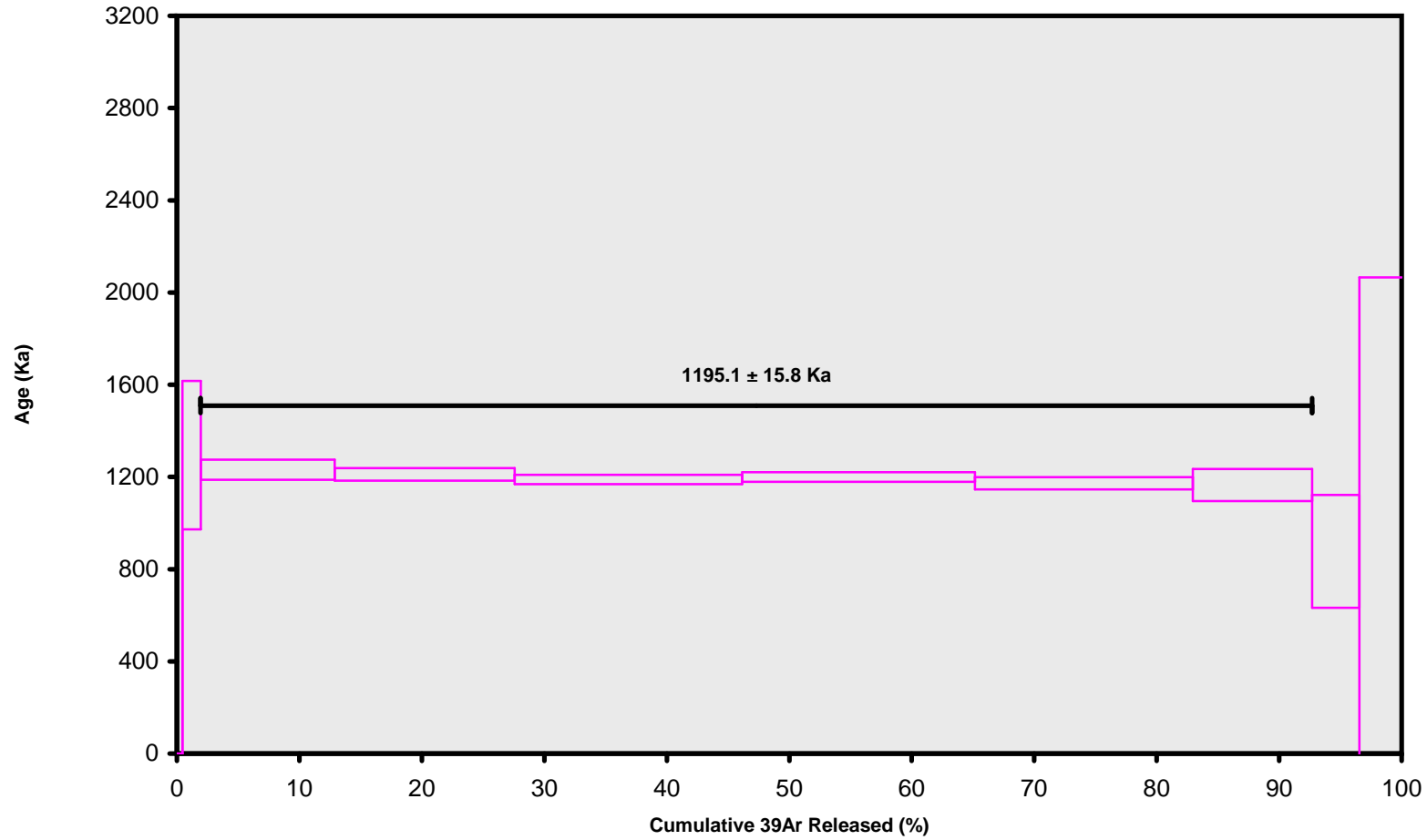
Degassing Patterns		36Ar(a)	36Ar(ca)	36Ar(cl)	37Ar(ca)	38Ar(a)	38Ar(k)	38Ar(ca)	38Ar(cl)	39Ar(k)	39Ar(ca)	40Ar(r)	40Ar(a)	40Ar(k)
5F041N.01	770 °C	0.00375	0.00001	0.00000	0.02971	0.00070	0.00014	0.00000	0.00033	0.01126	0.00002	0.00000	1.10814	0.00000
5F041N.02	870 °C	0.00303	0.00002	0.00000	0.08571	0.00057	0.00047	0.00000	0.00015	0.03816	0.00006	0.08825	0.89534	0.00001
5F041N.03	970 °C	4 0.00345	0.00014	0.00000	0.51856	0.00064	0.00346	0.00002	0.00009	0.27846	0.00035	0.61257	1.01843	0.00011
5F041N.04	1020 °C	4 0.00190	0.00014	0.00000	0.51020	0.00036	0.00464	0.00002	0.00000	0.37345	0.00034	0.80794	0.56289	0.00015
5F041N.05	1070 °C	4 0.00203	0.00013	0.00000	0.47025	0.00038	0.00587	0.00002	0.00000	0.47263	0.00032	1.00436	0.59950	0.00018
5F041N.06	1120 °C	4 0.00220	0.00010	0.00000	0.35834	0.00041	0.00601	0.00001	0.00003	0.48331	0.00024	1.03627	0.64895	0.00019
5F041N.07	1190 °C	4 0.00337	0.00010	0.00000	0.36157	0.00063	0.00562	0.00001	0.00011	0.45187	0.00024	0.94682	0.99555	0.00018
5F041N.08	1270 °C	4 0.00508	0.00009	0.00000	0.32858	0.00095	0.00308	0.00001	0.00066	0.24779	0.00022	0.51571	1.50077	0.00010
5F041N.09	1370 °C	0.00844	0.00011	0.00000	0.40381	0.00158	0.00123	0.00001	0.00139	0.09863	0.00027	0.15461	2.49496	0.00004
5F041N.10	1670 °C	0.03761	0.00095	0.00000	3.40842	0.00703	0.00109	0.00012	0.00249	0.08752	0.00230	0.14154	11.11311	0.00003
Σ		0.07085	0.00181	0.00000	6.47516	0.01324	0.03161	0.00022	0.00526	2.54307	0.00438	5.30806	20.93765	0.00099
Σ				0.07266	6.47516				0.05033		2.54745			26.24671

Additional Ratios		40(r)/39(k)	1σ	40(r+a)	1σ	37Ar(decay)	39Ar(decay)	40Ar(moles)
5F041N.01	770 °C	0.00000	0.00000	1.04870	0.00107	4.198997	1.00051270	6.292E-14
5F041N.02	870 °C	2.31271	0.28749	0.98359	0.00023	4.203607	1.00051309	5.902E-14
5F041N.03	970 °C	4 2.19986	0.03877	1.63101	0.00038	4.205510	1.00051325	9.787E-14
5F041N.04	1020 °C	4 2.16348	0.02438	1.37084	0.00034	4.207472	1.00051342	8.226E-14
5F041N.05	1070 °C	4 2.12502	0.01829	1.60386	0.00053	4.209377	1.00051358	9.624E-14
5F041N.06	1120 °C	4 2.14412	0.01843	1.68522	0.00042	4.211340	1.00051375	1.011E-13
5F041N.07	1190 °C	4 2.09532	0.02399	1.94237	0.00057	4.213247	1.00051391	1.166E-13
5F041N.08	1270 °C	4 2.08127	0.06252	2.01648	0.00059	4.215212	1.00051408	1.210E-13
5F041N.09	1370 °C	1.56754	0.21878	2.64957	0.00061	4.217121	1.00051424	1.590E-13
5F041N.10	1670 °C	1.61724	1.03737	11.25464	0.00478	4.219088	1.00051441	6.753E-13

Age Plateau

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RW5F041N.AGE >>> 01TR47 B18 >>> Westaway



Ar-Ages in Ka

Weighted Plateau
 1195.1 ± 15.8
Total Fusion
 1168.1 ± 43.5
Normal Isochron
 1196.2 ± 34.5
Inverse Isochron
 1196.1 ± 34.6

MSWD
1.64

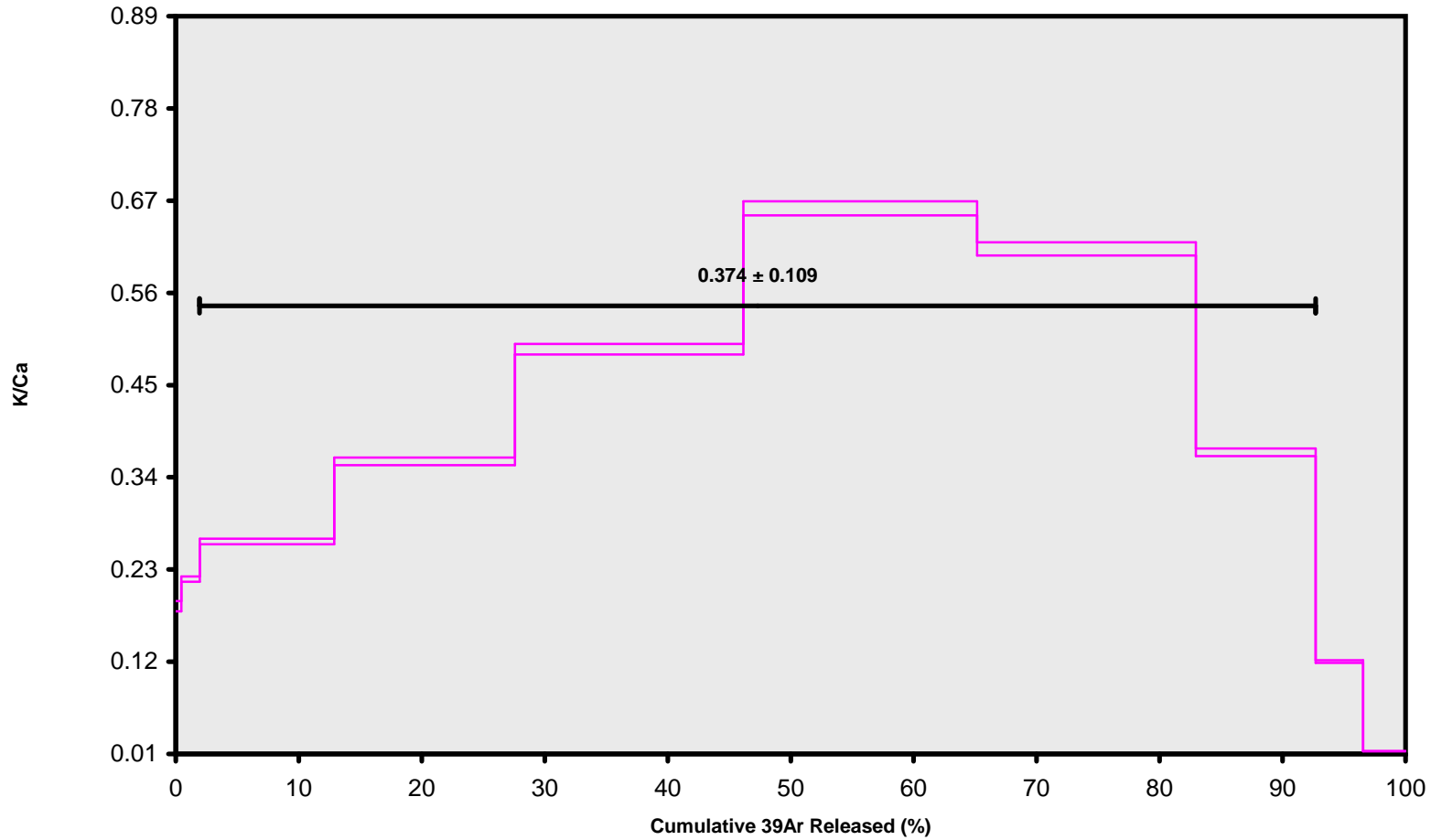
Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003103 (J)

K-Ca Plateau

Clair
MIT, Cambridge, USA

RW5F041N.AGE >>> 01TR47 B18 >>> Westaway



Ar-Ages in Ka

Weighted Plateau
 1195.1 ± 15.8
Total Fusion
 1168.1 ± 43.5
Normal Isochron
 1196.2 ± 34.5
Inverse Isochron
 1196.1 ± 34.6

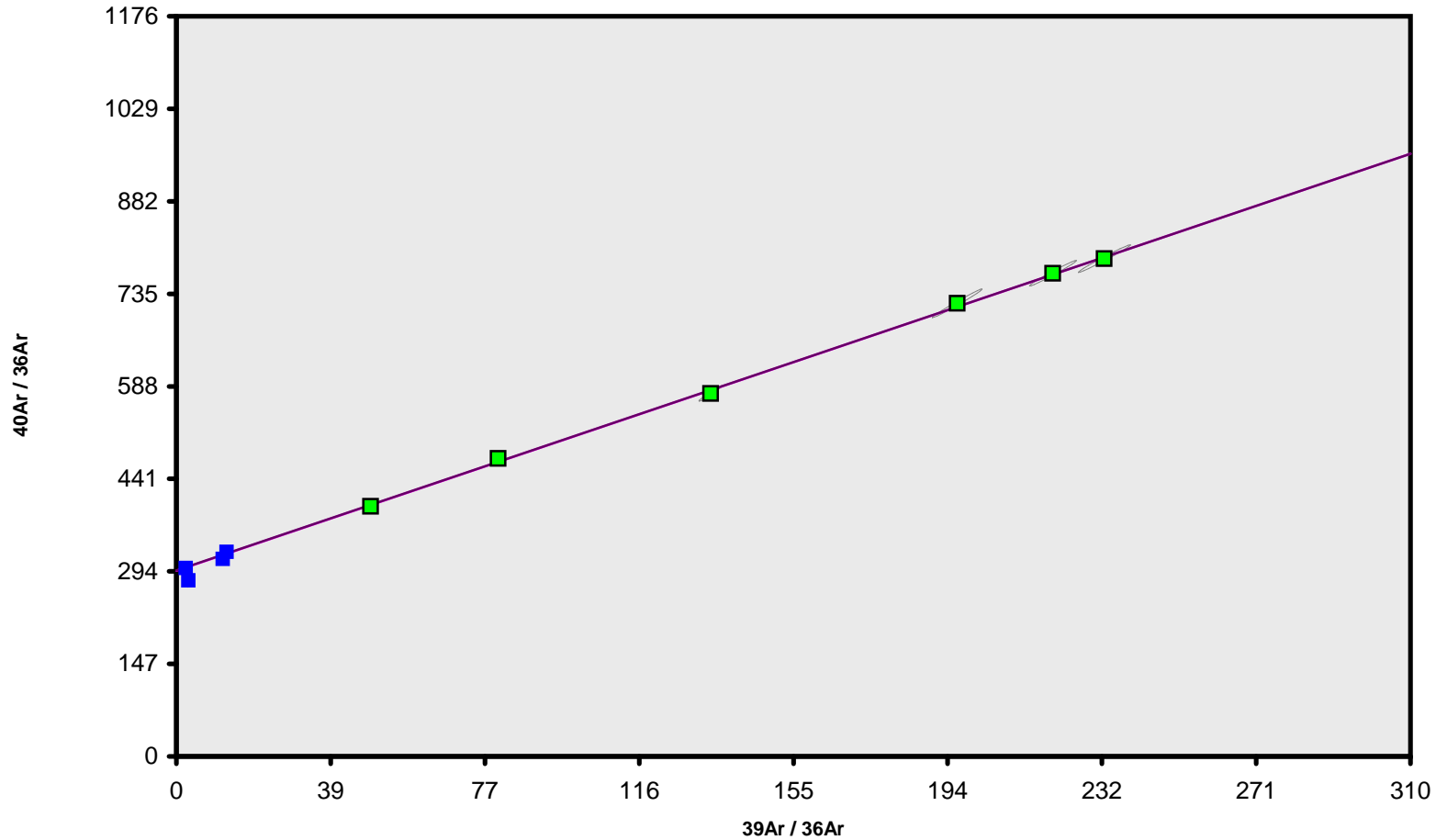
Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003103 (J)

Normal Isochron

Clair
MIT, Cambridge, USA

RW5F041N.AGE >>> 01TR47 B18 >>> Westaway



Ar-Ages in Ka

Weighted Plateau
 1195.1 ± 15.8
Total Fusion
 1168.1 ± 43.5
Normal Isochron
 1196.2 ± 34.5
Inverse Isochron
 1196.1 ± 34.6

MSWD
2.03

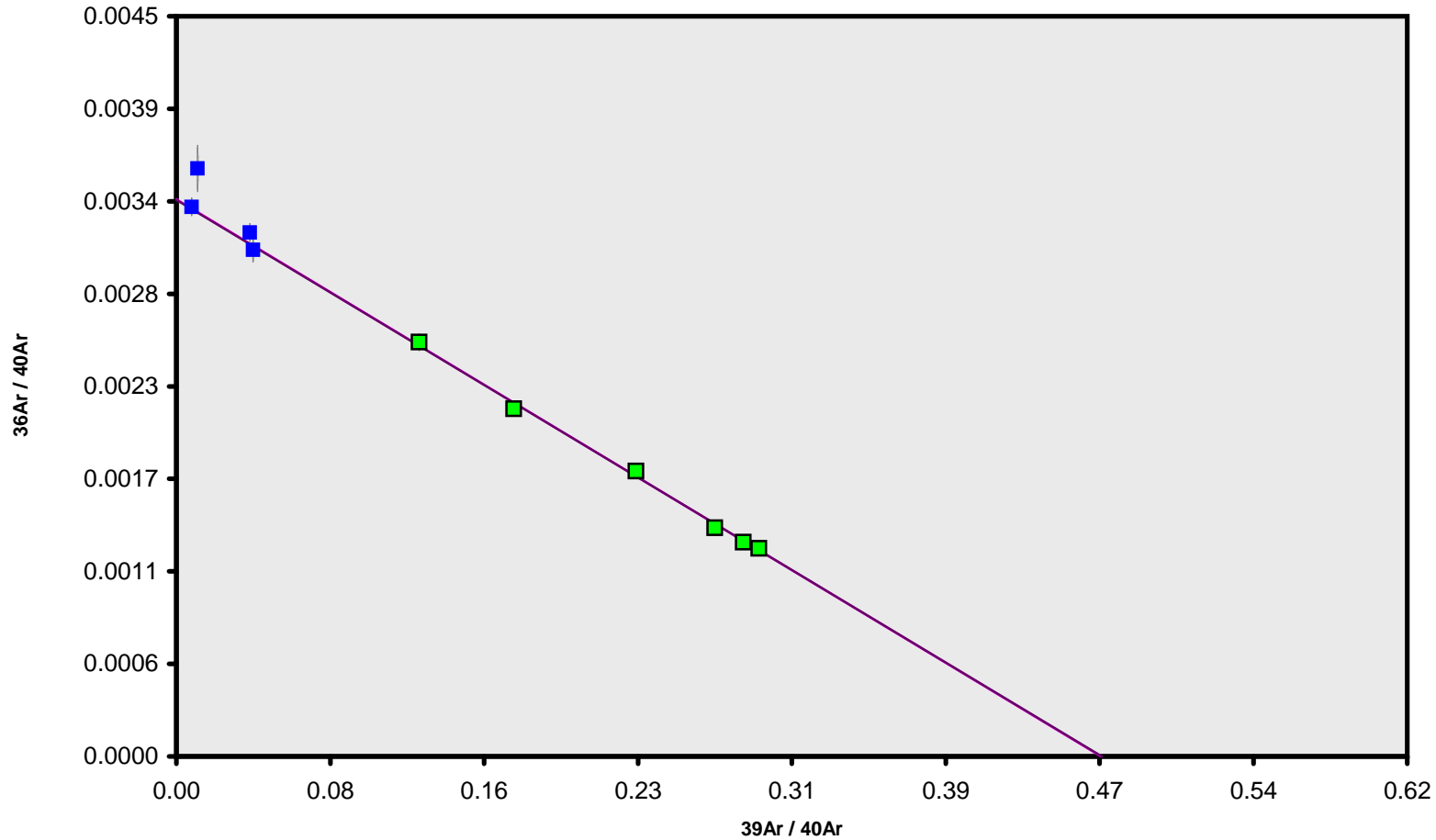
Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003103 (J)

Inverse Isochron

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