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

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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	1σ	37Ar	1σ	38Ar	1σ	39Ar	1σ	40Ar	1σ
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	1σ	r2		37Ar	1σ	r2		38Ar	1σ	r2		39Ar	1σ	r2		40Ar	1σ	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)	%1σ	J	%1σ	Fract	%1σ	Volume Corr.	Sensitivity (mol/vol)	Day	Month	Year	Hour	Min	Resist	Irradiation	Project	Standard Name
5F041P.01	770 °C	01TR53 B20	bas grndmss	/estaway Volcani	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 Volcani	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 Volcani	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 Volcani	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 Volcani	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 Volcani	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 Volcani	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 Volcani	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 Volcani	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 Volcani	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)	%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
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

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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	
Sample	01TR53 B20
Material	bas grndmss
Location	estaway Volcani
Analyst	msp
Project	Westaway
Irradiation	cl155-
J-value	0.0003028
Standard	28.34

Results	40(r)/39(k) ± 2σ		Age ± 2σ (Ma)		MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Weighted Plateau	0.2906	± 0.0266	158.7	± 14.6	0.71	79.37	0.342 ± 0.085
		± 9.16%		± 9.18%		7	
		External Error		± 14.6	2.45	Statistical T ratio	
		Analytical Error		± 14.5	1.0000	Error Magnification	
Total Fusion Age	0.2516	± 0.0866	137.4	± 47.3		10	0.129 ± 0.001
		± 34.41%		± 34.41%			
		External Error		± 47.3			
		Analytical Error		± 47.3			

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Normal Isochron			$^{39}(k)/^{36}(a) \pm 2\sigma$	$^{40}(a+r)/^{36}(a) \pm 2\sigma$	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			$^{39}(k)/^{40}(a+r) \pm 2\sigma$	$^{36}(a)/^{40}(a+r) \pm 2\sigma$	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	$^{40}(a)/^{36}(a) \pm 2\sigma$	$^{40}(r)/^{39}(k) \pm 2\sigma$	Age $\pm 2\sigma$ (Ma)	MSWD
Isochron	291.7459 ± 6.6557 ± 2.28%	0.3174 ± 0.0556 ± 17.53%	173.4 ± 30.4 ± 17.54%	0.61
			External Error ± 30.4	
			Analytical Error ± 30.4	

Statistics				
Statistical F ratio	2.21	Convergence	0.0000000066
Error Magnification	1.0000	Number of Iterations	9
n	7	Calculated Line	Weighted York-2

Results	$^{40}(a)/^{36}(a) \pm 2\sigma$	$^{40}(r)/^{39}(k) \pm 2\sigma$	Age $\pm 2\sigma$ (Ma)	MSWD
Isochron	291.7252 ± 6.6233 ± 2.27%	0.3183 ± 0.0545 ± 17.12%	173.9 ± 29.8 ± 17.13%	0.60
			External Error ± 29.8	
			Analytical Error ± 29.8	

Statistics				
Statistical F ratio	2.21	Convergence	0.0000014616
Error Magnification	1.0000	Number of Iterations	3
n	7	Calculated Line	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)	1σ	40(r+a)	1σ	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

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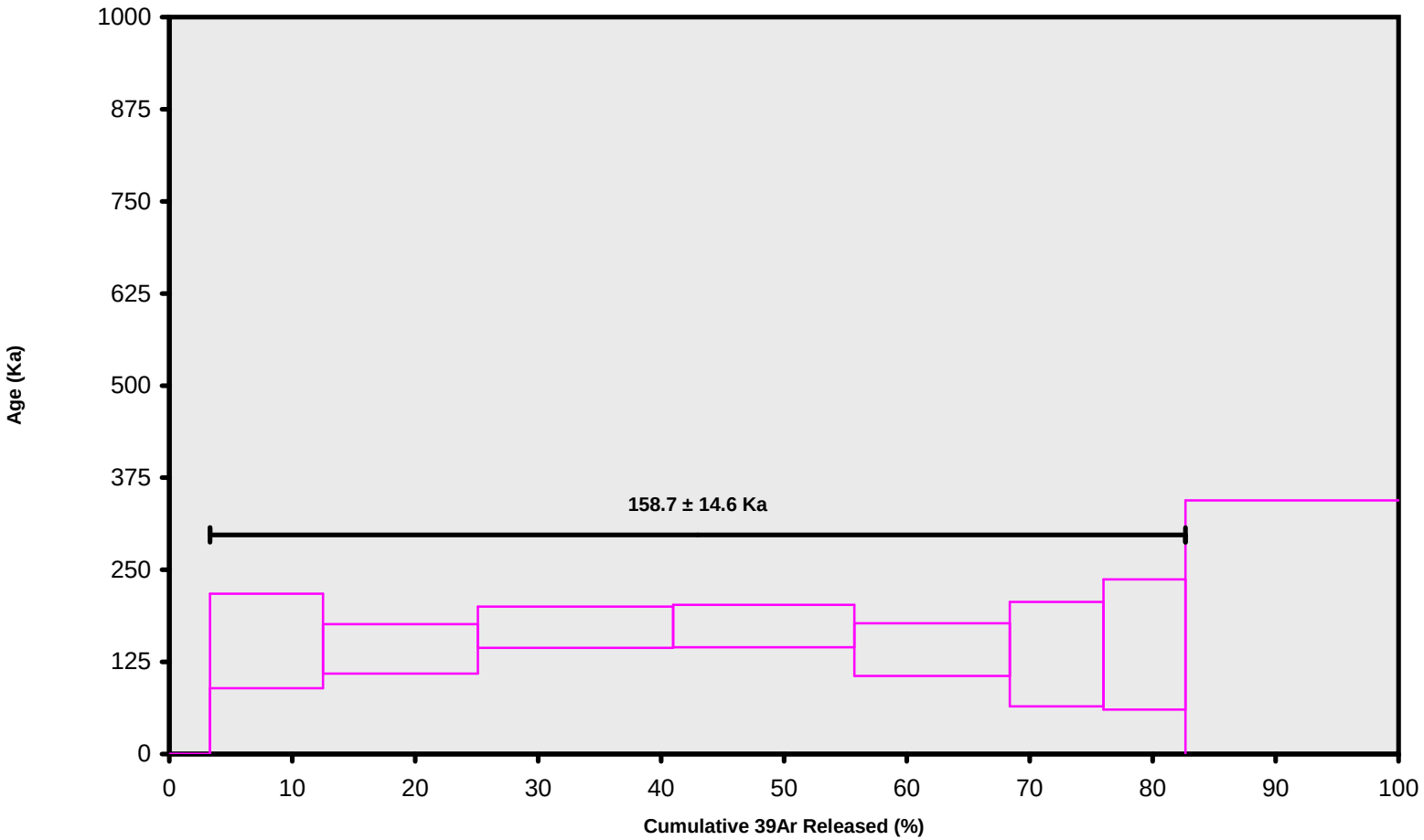
RW5F041P.AGE >>> 01TR53 B20 >>> Westaway



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
0.71

Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003028 (J)

K-Ca Plateau

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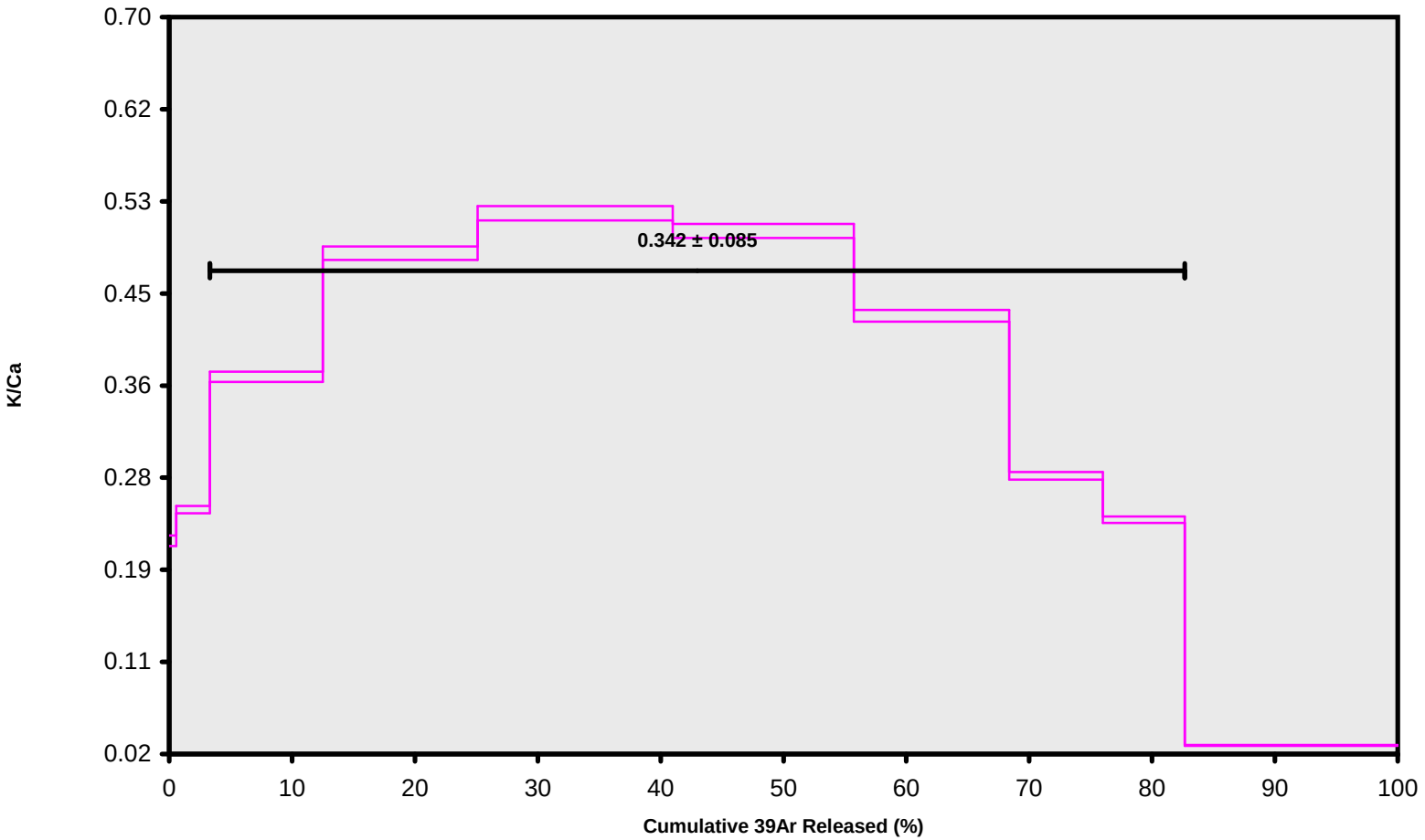
RW5F041P.AGE >>> 01TR53 B20 >>> Westaway



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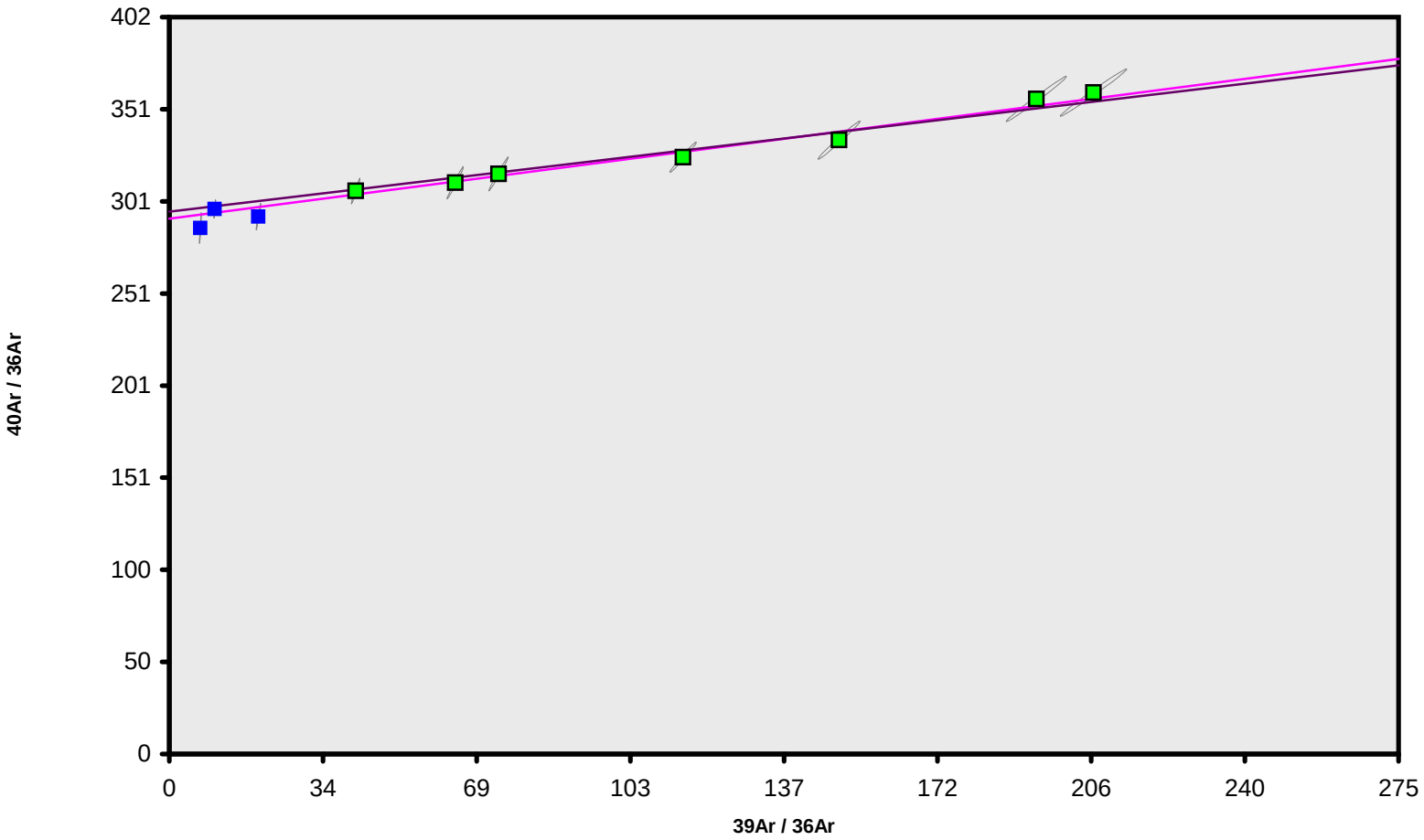
RW5F041P.AGE >>> 01TR53 B20 >>> Westaway



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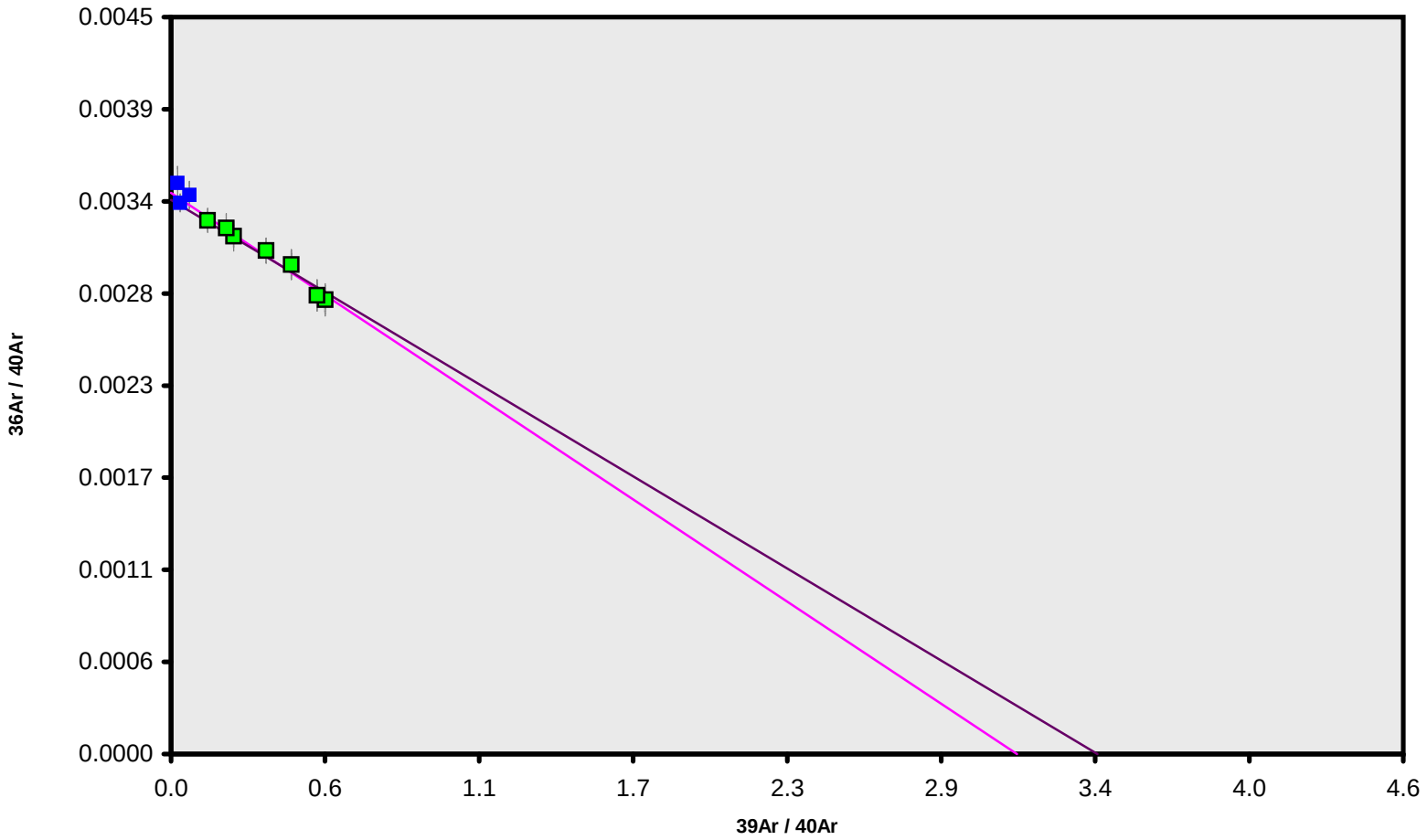
RW5F041P.AGE >>> 01TR53 B20 >>> Westaway



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	1σ	37Ar	1σ	38Ar	1σ	39Ar	1σ	40Ar	1σ
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)	%1σ	J	%1σ	Fract	%1σ	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	tcr-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	tcr-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	tcr-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	tcr-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	tcr-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	tcr-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	tcr-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	tcr-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	tcr-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	tcr-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

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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	
Sample	03TR21 B17
Material	bas grndmss
Location	Westaway
Analyst	msp
Project	Westaway
Irradiation	cl155-
J-value	0.0003142
Standard	28.34

Results	40(r)/39(k) ± 2σ		Age ± 2σ (Ma)		MSWD	39Ar(k) (%,n)	K/Ca ± 2σ	
Weighted Plateau	0.6796	± 0.0224 ± 3.29%	385.2	± 12.9 ± 3.35%	0.24	81.02 7	0.326	± 0.041
			External Error	± 12.9	2.45	Statistical T ratio		
			Analytical Error	± 12.7	1.0000	Error Magnification		
Total Fusion Age	0.6831	± 0.0277 ± 4.06%	387.2	± 15.9 ± 4.11%		10	0.164	± 0.001
			External Error	± 15.9				
			Analytical Error	± 15.7				

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Normal Isochron			$^{39}(k)/^{36}(a) \pm 2\sigma$	$^{40}(a+r)/^{36}(a) \pm 2\sigma$	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	109 ± 3	366 ± 10	0.985
5F041M.04	1020 °C	4	223 ± 10	446 ± 20	0.995
5F041M.05	1070 °C	4	313 ± 13	508 ± 22	0.995
5F041M.06	1120 °C	4	294 ± 15	502 ± 25	0.996
5F041M.07	1190 °C	4	227 ± 11	450 ± 22	0.996
5F041M.08	1270 °C	4	151 ± 6	397 ± 16	0.993
5F041M.09	1370 °C	4	172 ± 10	413 ± 23	0.997
5F041M.10	1670 °C		64 ± 1	346 ± 7	0.979

Inverse Isochron			$^{39}(k)/^{40}(a+r) \pm 2\sigma$	$^{36}(a)/^{40}(a+r) \pm 2\sigma$	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	0.296332 ± 0.001376	0.002730 ± 0.000074	0.010
5F041M.04	1020 °C	4	0.501207 ± 0.002272	0.002244 ± 0.000102	0.005
5F041M.05	1070 °C	4	0.616432 ± 0.002640	0.001970 ± 0.000084	0.007
5F041M.06	1120 °C	4	0.585955 ± 0.002523	0.001994 ± 0.000098	0.007
5F041M.07	1190 °C	4	0.503819 ± 0.002135	0.002221 ± 0.000108	0.003
5F041M.08	1270 °C	4	0.380878 ± 0.001802	0.002521 ± 0.000104	0.010
5F041M.09	1370 °C	4	0.416654 ± 0.001882	0.002421 ± 0.000134	0.009
5F041M.10	1670 °C		0.186382 ± 0.000793	0.002890 ± 0.000059	0.003

Results	$^{40}(a)/^{36}(a) \pm 2\sigma$	$^{40}(r)/^{39}(k) \pm 2\sigma$	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	2.21	Convergence	0.0000000390
Error Magnification	1.0000	Number of Iterations	14
n	7	Calculated Line	Weighted York-2

Results	$^{40}(a)/^{36}(a) \pm 2\sigma$	$^{40}(r)/^{39}(k) \pm 2\sigma$	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	2.21	Convergence	0.0000002357
Error Magnification	1.0000	Number of Iterations	3
n	7	Calculated Line	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

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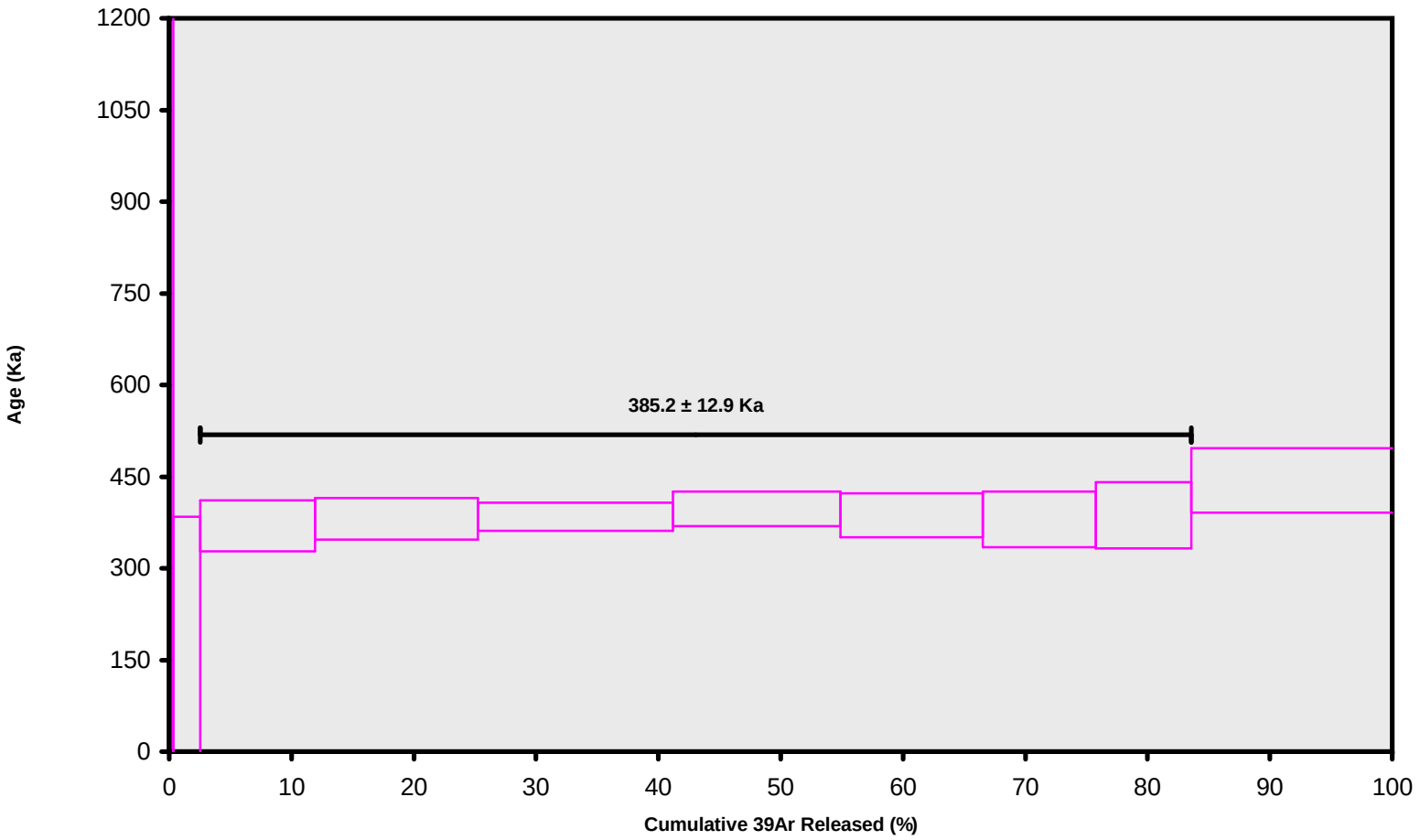
RW5F041M.AGE >>> 03TR21 B17 >>> Westaway



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
Westaway
msp
cl155-
0.0003142 (J)

K-Ca Plateau

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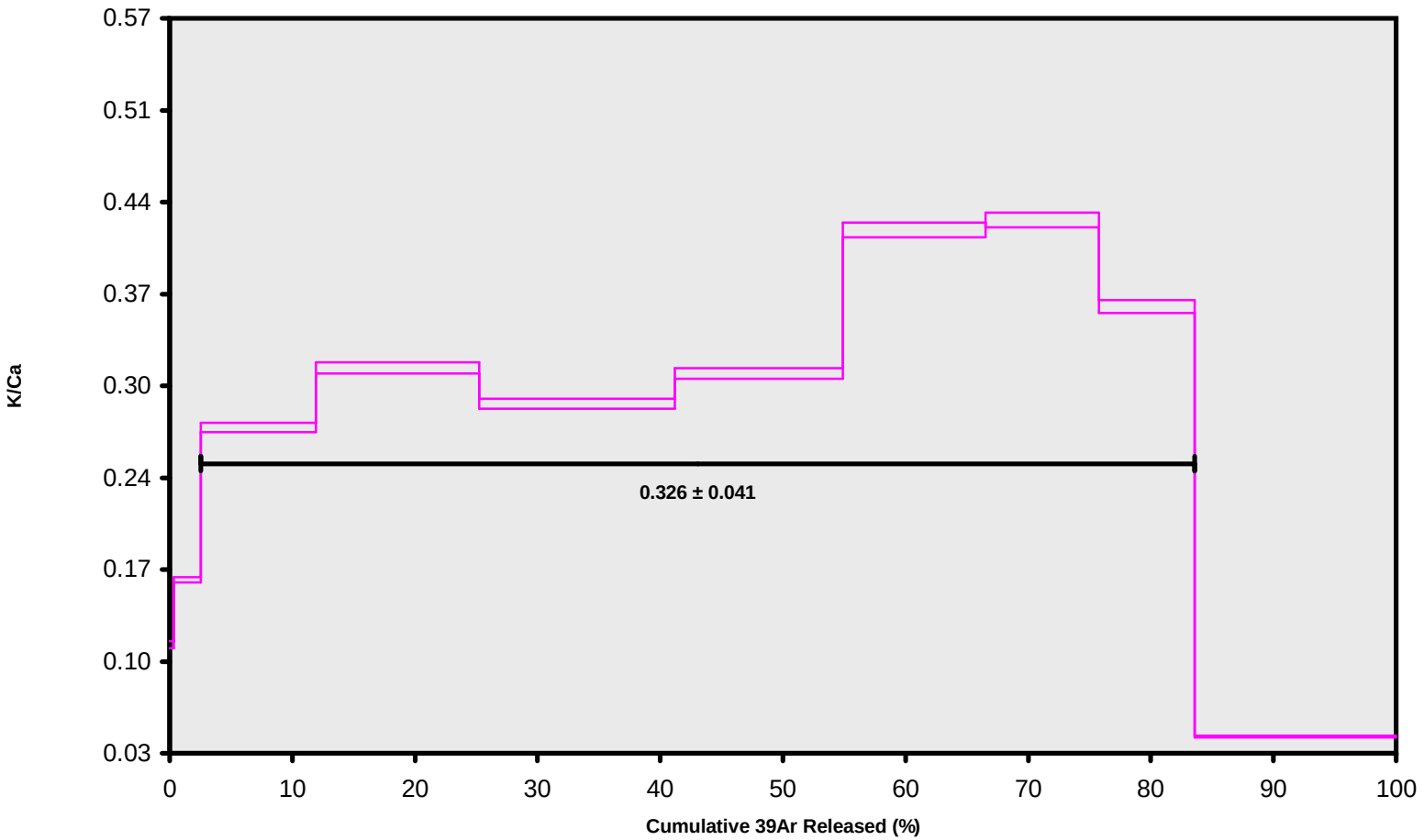
RW5F041M.AGE >>> 03TR21 B17 >>> Westaway



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
Westaway
msp
cl155-
0.0003142 (J)

Normal Isochron

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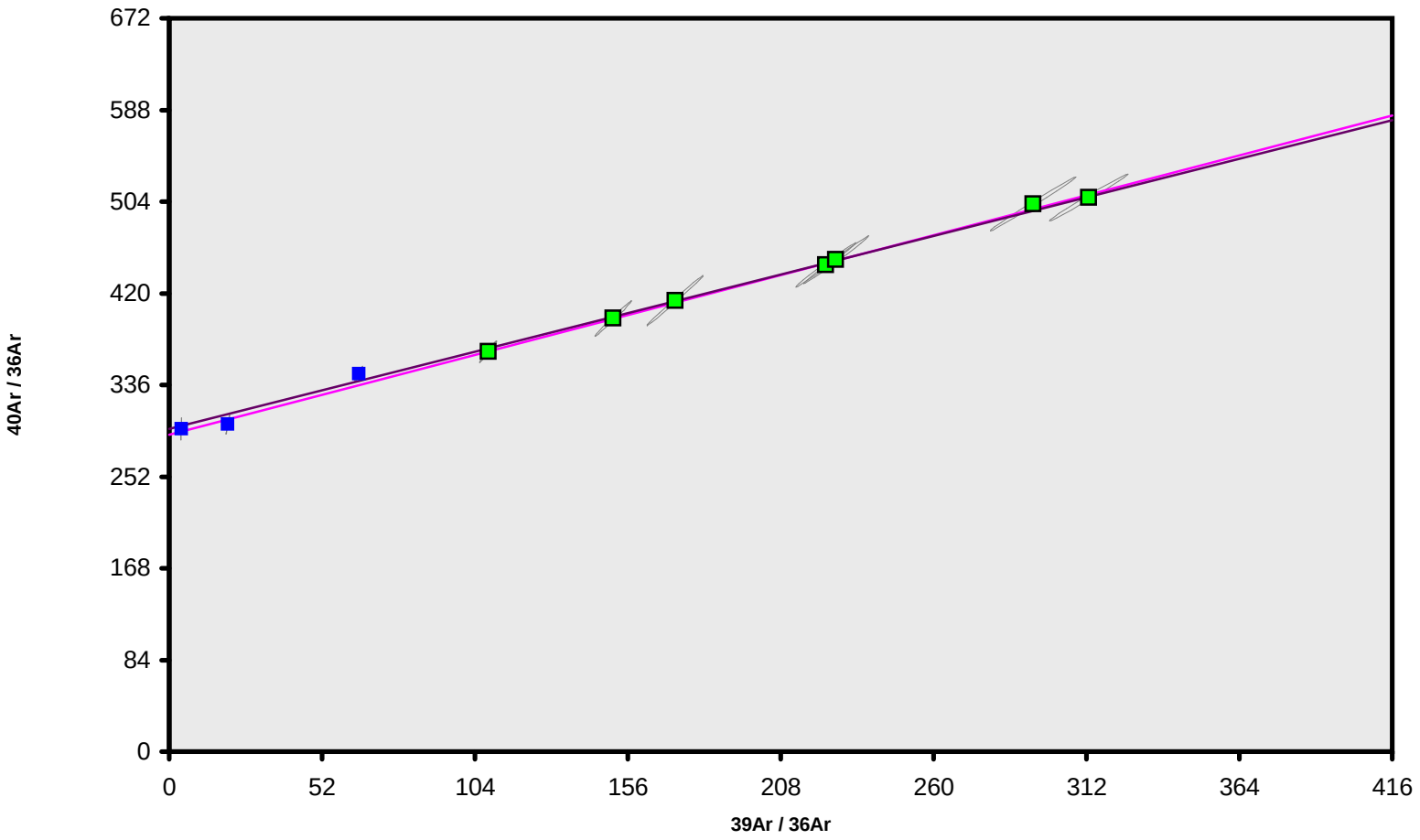
RW5F041M.AGE >>> 03TR21 B17 >>> Westaway



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
Westaway
msp
cl155-
0.0003142 (J)

Inverse Isochron

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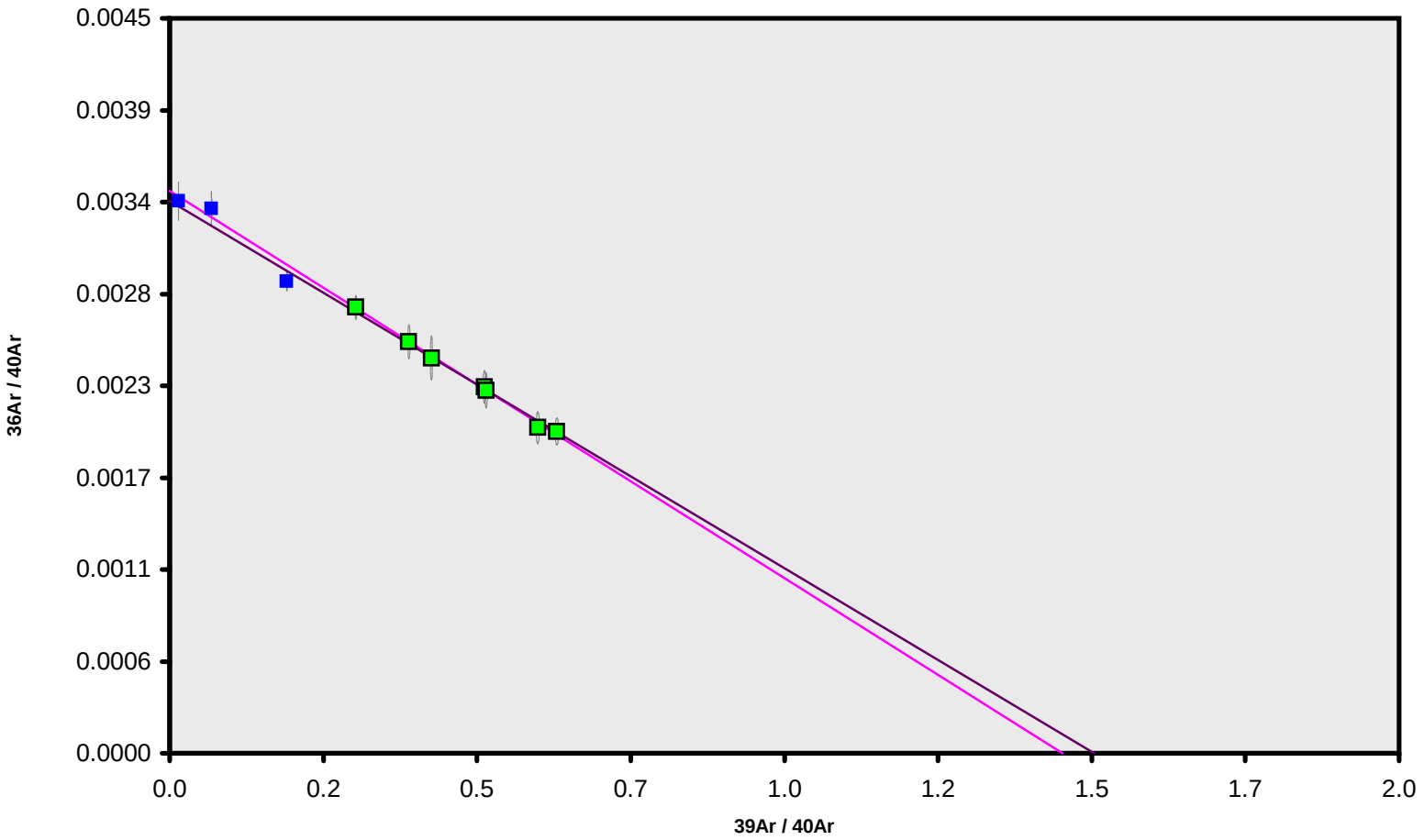
RW5F041M.AGE >>> 03TR21 B17 >>> Westaway



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
Westaway
msp
cl155-
0.0003142 (J)

Sample 01TR51

Data Tables

Procedure Blanks		36Ar	1σ	37Ar	1σ	38Ar	1σ	39Ar	1σ	40Ar	1σ
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

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Intercept Values		36Ar	1σ	r2		37Ar	1σ	r2		38Ar	1σ	r2		39Ar	1σ	r2		40Ar	1σ	r2	
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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)	%1σ	J	%1σ	Fract	%1σ	Volume Corr.	Sensitivity (mol/vol)	Day	Month	Year	Hour	Min	Resist	Irradiation	Project	Standard Name
5F041O.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	tcr-2a
5F041O.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	tcr-2a
5F041O.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	tcr-2a
5F041O.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	tcr-2a
5F041O.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	tcr-2a
5F041O.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	tcr-2a
5F041O.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	tcr-2a
5F041O.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	tcr-2a
5F041O.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	tcr-2a
5F041O.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	tcr-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
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

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Incremental Heating			36Ar(a)	37Ar(ca)	38Ar(cl)	39Ar(k)	40Ar(r)	Age ± 2σ (Ma)	40Ar(r) (%)	39Ar(k) (%)	K/Ca ± 2σ
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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
5F041O.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	
Sample	01TR51 B19
Material	bas grndmss
Location	estaway Volcani
Analyst	msp
Project	Westaway
Irradiation	cl155-
J-value	0.0003066
Standard	28.34

Results	40(r)/39(k) ± 2σ		Age ± 2σ (Ma)		MSWD	39Ar(k) (%,n)		K/Ca ± 2σ
Weighted Plateau	0.7446	± 0.0163	411.8	± 9.4	0.24	92.80		0.481 ± 0.094
		± 2.20%		± 2.28%		7		
			External Error	± 9.4	2.45	Statistical T ratio		
			Analytical Error	± 9.0	1.0000	Error Magnification		
Total Fusion Age	0.7455	± 0.0209	412.3	± 11.8		10		0.254 ± 0.002
		± 2.81%		± 2.87%				
			External Error	± 11.8				
			Analytical Error	± 11.6				

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Normal Isochron			$^{39}(k)/^{36}(a) \pm 2\sigma$	$^{40}(a+r)/^{36}(a) \pm 2\sigma$	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	4	118 ± 3	382 ± 9	0.984
5F041O.04	1020 °C	4	233 ± 9	471 ± 17	0.993
5F041O.05	1070 °C	4	352 ± 19	555 ± 30	0.997
5F041O.06	1120 °C	4	502 ± 41	674 ± 54	0.999
5F041O.07	1190 °C	4	509 ± 26	676 ± 34	0.996
5F041O.08	1270 °C	4	343 ± 16	545 ± 25	0.995
5F041O.09	1370 °C	4	242 ± 11	479 ± 23	0.996
5F041O.10	1670 °C		30 ± 1	326 ± 9	0.986

Inverse Isochron			$^{39}(k)/^{40}(a+r) \pm 2\sigma$	$^{36}(a)/^{40}(a+r) \pm 2\sigma$	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	4	0.308638 ± 0.001360	0.002619 ± 0.000063	0.007
5F041O.04	1020 °C	4	0.494138 ± 0.002142	0.002122 ± 0.000077	0.008
5F041O.05	1070 °C	4	0.633541 ± 0.002727	0.001801 ± 0.000098	0.003
5F041O.06	1120 °C	4	0.744661 ± 0.003101	0.001485 ± 0.000120	0.002
5F041O.07	1190 °C	4	0.752979 ± 0.003231	0.001479 ± 0.000075	0.004
5F041O.08	1270 °C	4	0.628262 ± 0.002765	0.001833 ± 0.000083	0.012
5F041O.09	1370 °C	4	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	$^{40}(a)/^{36}(a) \pm 2\sigma$	$^{40}(r)/^{39}(k) \pm 2\sigma$	Age ± 2σ (Ma)	MSWD
Isochron	294.3990 ± 9.5350 ± 3.24%	0.7478 ± 0.0345 ± 4.61%	413.6 ± 19.2 ± 4.65%	0.28
			External Error ± 19.2	
			Analytical Error ± 19.1	

Statistics				
Statistical F ratio	2.21	Convergence		0.0000000535
Error Magnification	1.0000	Number of Iterations		23
n	7	Calculated Line		Weighted York-2

Results	$^{40}(a)/^{36}(a) \pm 2\sigma$	$^{40}(r)/^{39}(k) \pm 2\sigma$	Age ± 2σ (Ma)	MSWD
Isochron	294.4007 ± 9.5347 ± 3.24%	0.7481 ± 0.0344 ± 4.60%	413.8 ± 19.2 ± 4.64%	0.28
			External Error ± 19.2	
			Analytical Error ± 19.0	

Statistics				
Statistical F ratio	2.21	Convergence		0.0000000978
Error Magnification	1.0000	Number of Iterations		3
n	7	Calculated Line		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)
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

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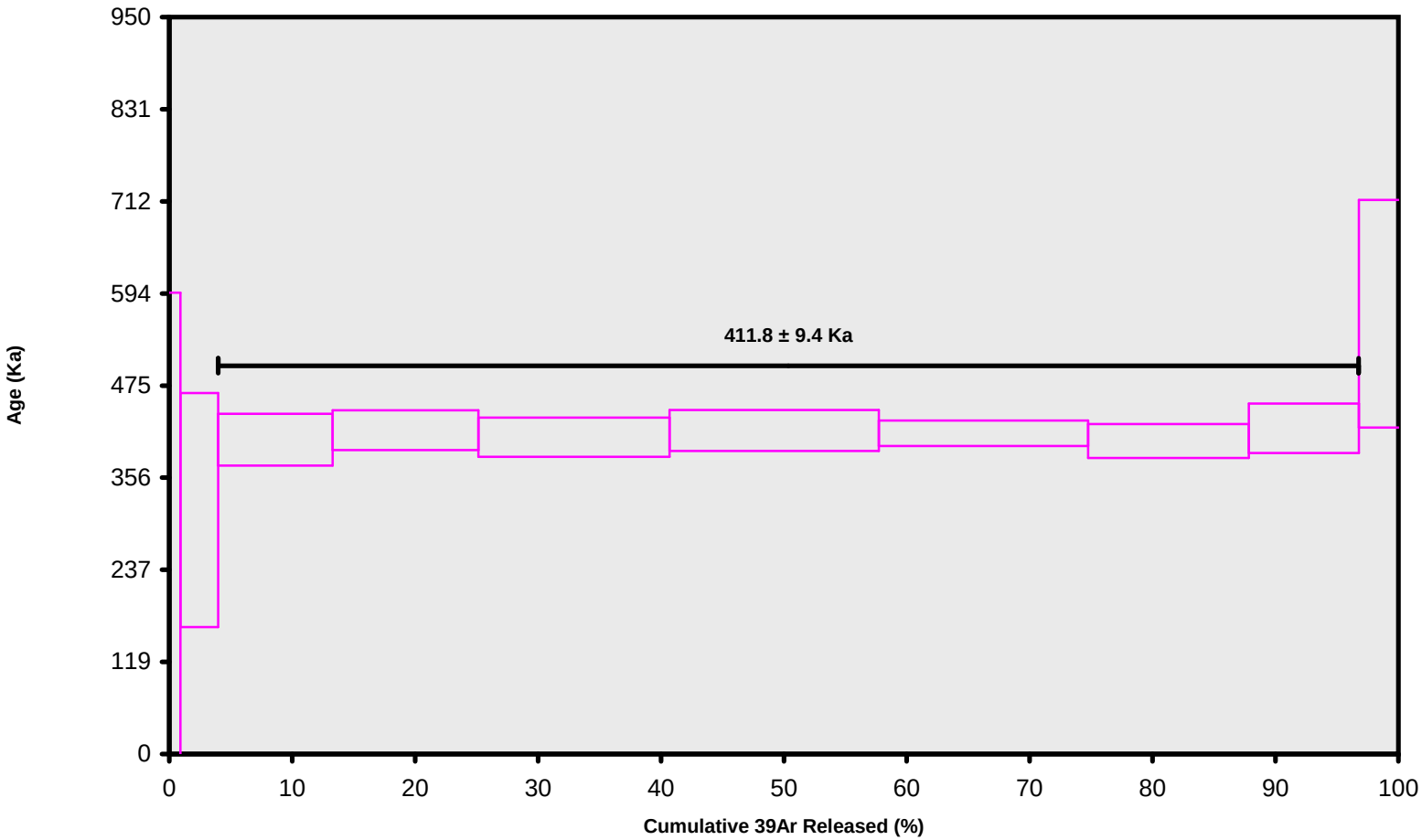
RW5F041O.AGE >>> 01TR51 B19 >>> Westaway



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

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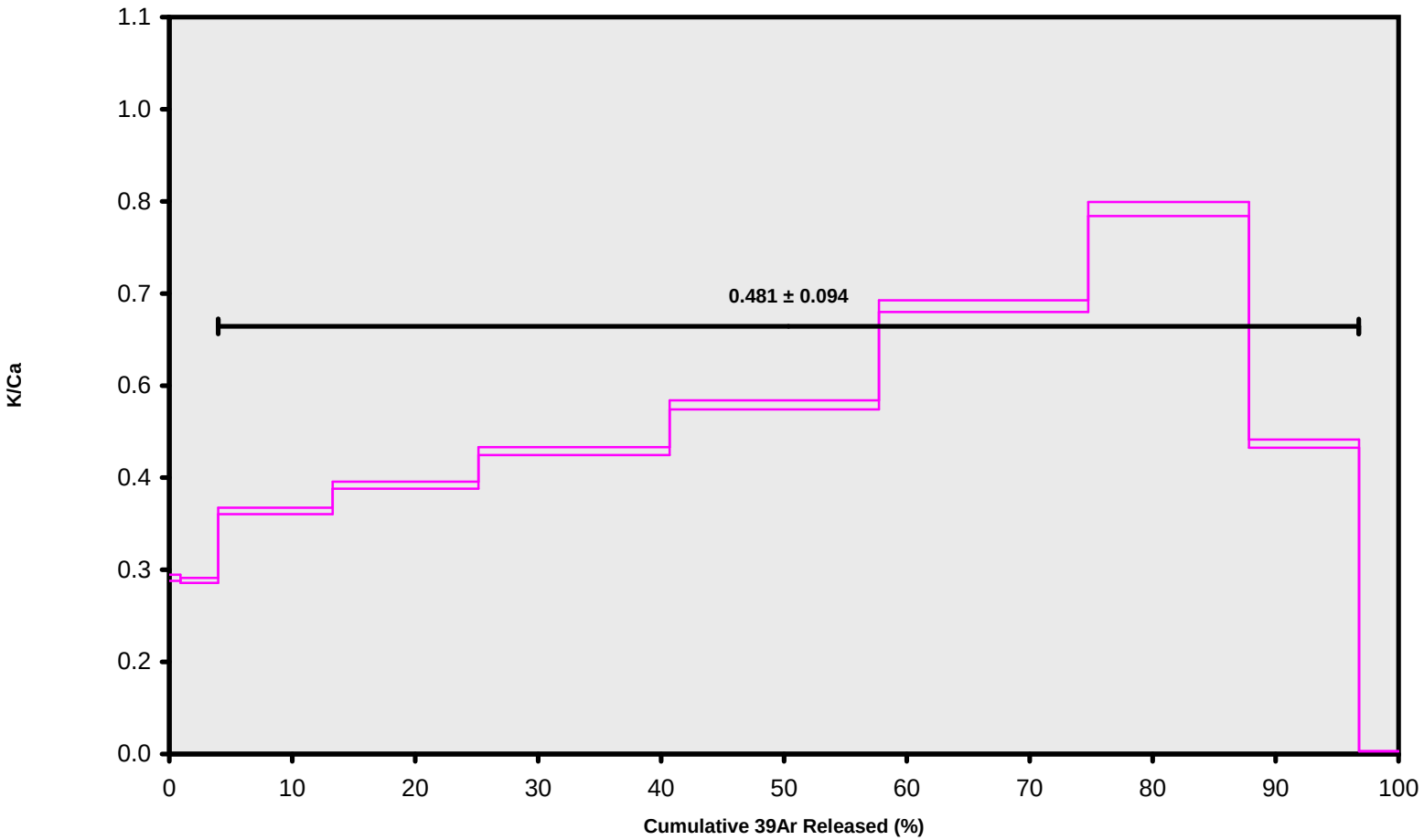
RW5F041O.AGE >>> 01TR51 B19 >>> Westaway



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

Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003066 (J)

Normal Isochron

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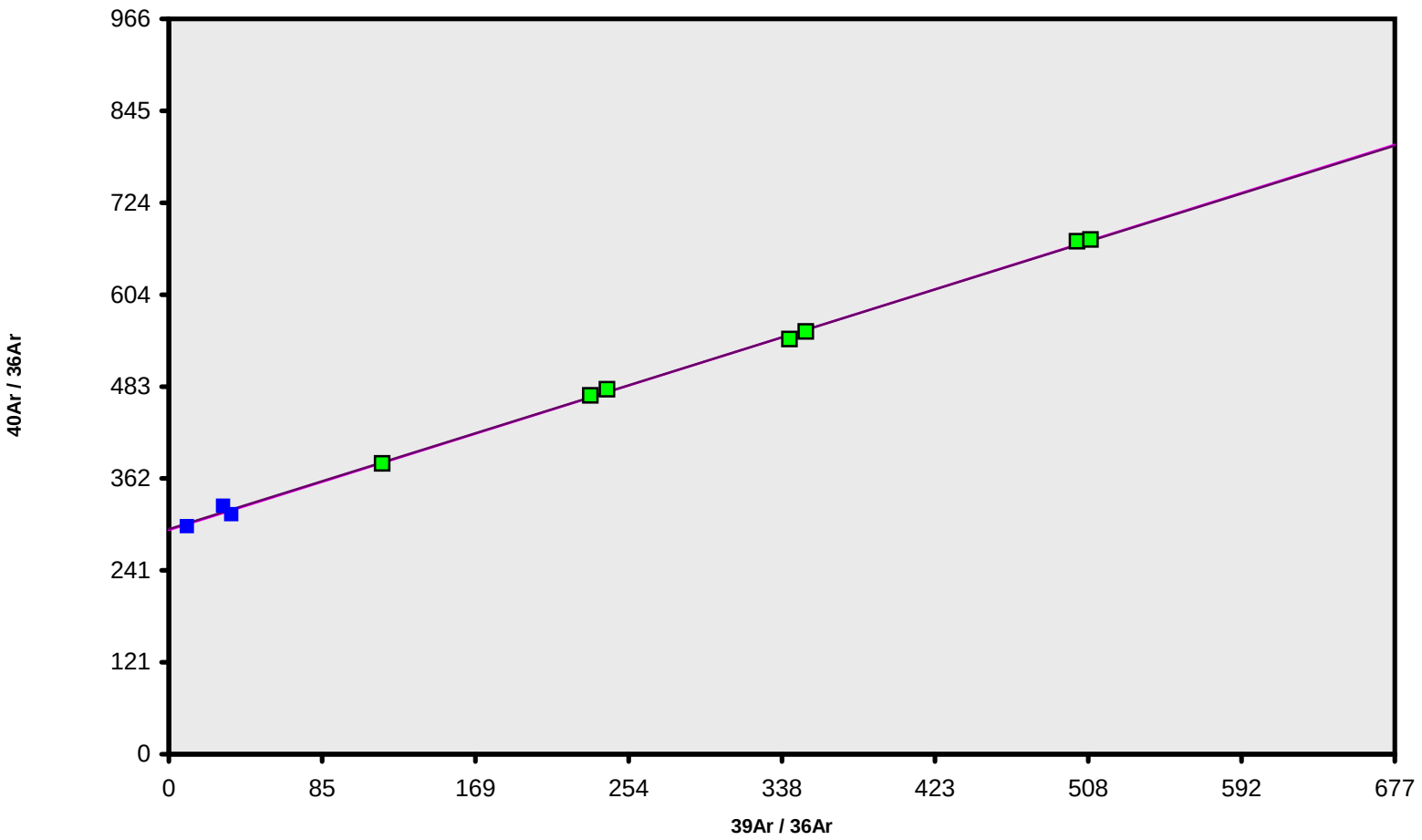
RW5F041O.AGE >>> 01TR51 B19 >>> Westaway



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)

Inverse Isochron

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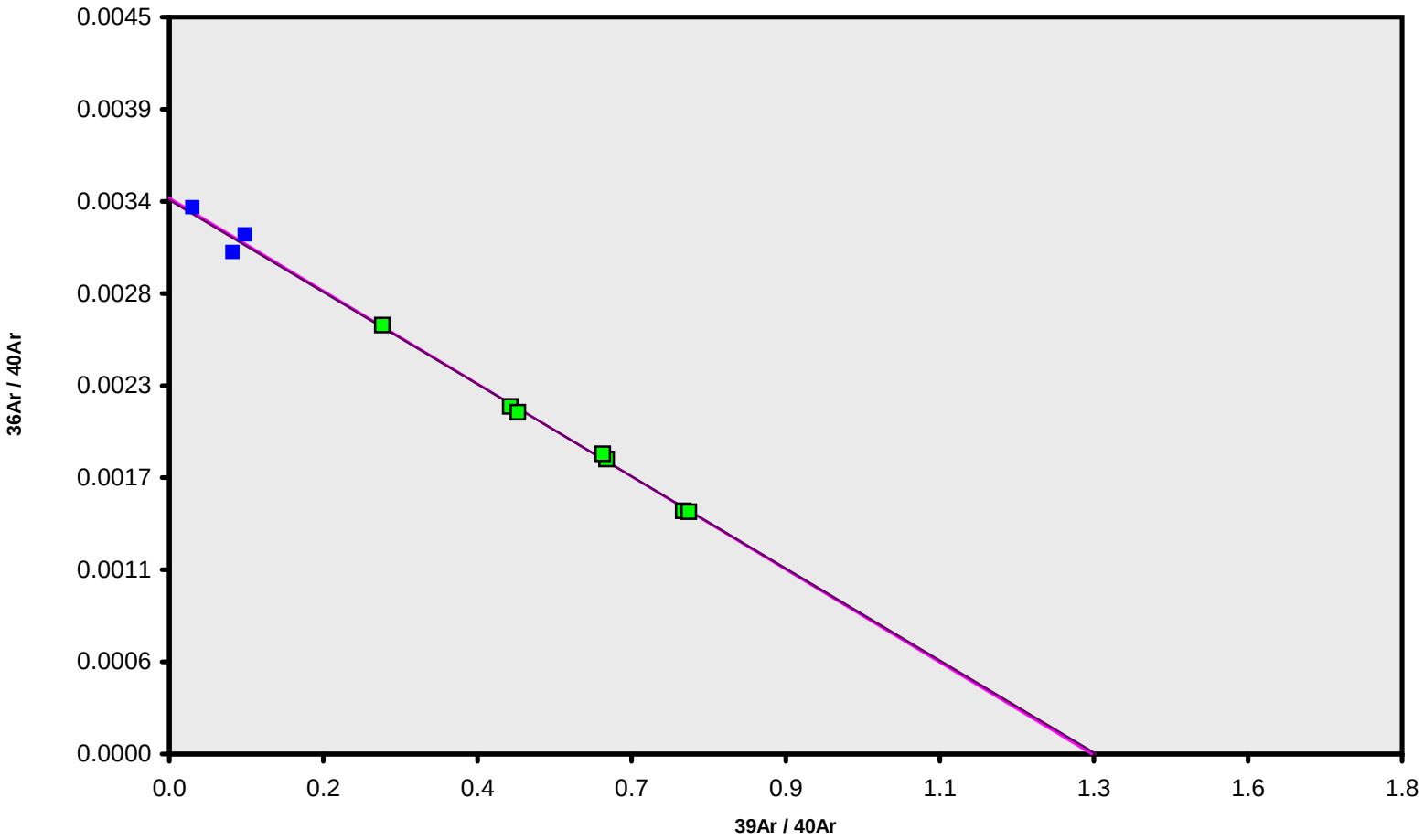
RW5F041O.AGE >>> 01TR51 B19 >>> Westaway



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	1σ	37Ar	1σ	38Ar	1σ	39Ar	1σ	40Ar	1σ
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	1σ	r2		37Ar	1σ	r2		38Ar	1σ	r2		39Ar	1σ	r2		40Ar	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)	%1σ	J	%1σ	Fract	%1σ	Volume Corr.	Sensitivity (mol/vol)	Day	Month	Year	Hour	Min	Resist	Irradiation	Project	Standard Name
5F041N.01	770 °C	01TR47 B18	bas grndmss	/estaway Volcanic	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	/estaway Volcanic	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	/estaway Volcanic	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	/estaway Volcanic	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	/estaway Volcanic	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	/estaway Volcanic	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	/estaway Volcanic	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	/estaway Volcanic	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	/estaway Volcanic	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	/estaway Volcanic	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

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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
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

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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	4	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	4	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	4	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	4	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	4	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	4	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	
Sample	01TR47 B18
Material	bas grndmss
Location	estaway Volcani
Analyst	msp
Project	Westaway
Irradiation	cl155-
J-value	0.0003103
Standard	28.34

Results	40(r)/39(k) ± 2σ		Age ± 2σ (Ma)		MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Weighted Plateau	2.1355	± 0.0252	1195.1	± 15.8	1.64	90.74	0.374 ± 0.109
		± 1.18%		± 1.32%		6	
			External Error	± 15.8	2.57	Statistical T ratio	
			Analytical Error	± 14.1	1.2789	Error Magnification	
Total Fusion Age	2.0873	± 0.0768	1168.1	± 43.5		10	0.192 ± 0.001
		± 3.68%		± 3.73%			
			External Error	± 43.5			
			Analytical Error	± 43.0			

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Normal Isochron			$^{39}(k)/^{36}(a) \pm 2\sigma$	$^{40}(a+r)/^{36}(a) \pm 2\sigma$	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			$^{39}(k)/^{40}(a+r) \pm 2\sigma$	$^{36}(a)/^{40}(a+r) \pm 2\sigma$	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	$^{40}(a)/^{36}(a) \pm 2\sigma$	$^{40}(r)/^{39}(k) \pm 2\sigma$	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	2.37	Convergence	0.0000001583
Error Magnification	1.4250	Number of Iterations	27
n	6	Calculated Line	Weighted York-2

Results	$^{40}(a)/^{36}(a) \pm 2\sigma$	$^{40}(r)/^{39}(k) \pm 2\sigma$	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	2.37	Convergence	0.0000000617
Error Magnification	1.4291	Number of Iterations	3
n	6	Calculated Line	Weighted York-2

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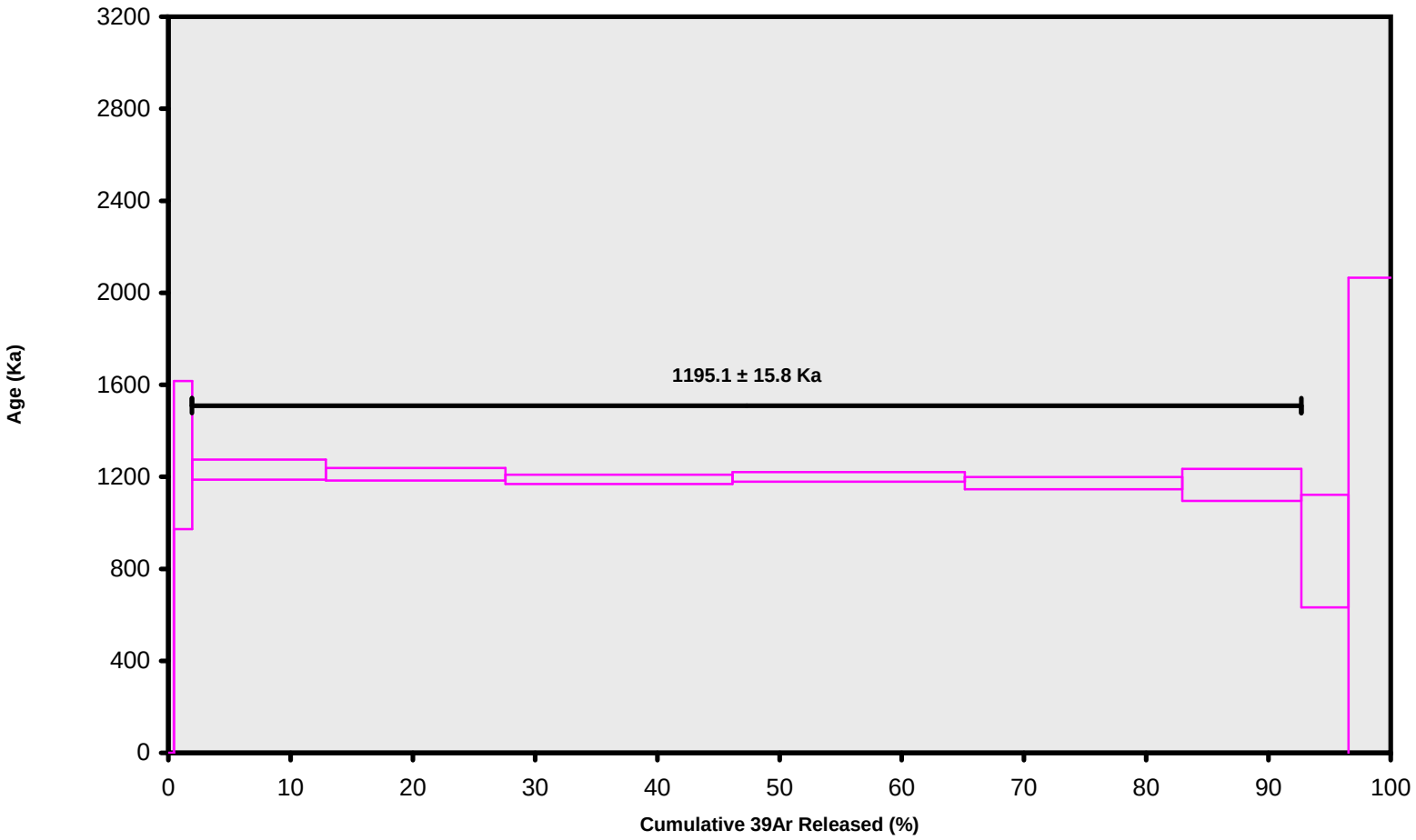
Degassing Patterns			36Ar(a)	36Ar(ca)	36Ar(cl)	37Ar(ca)	38Ar(a)	38Ar(k)	38Ar(ca)	38Ar(cl)	39Ar(k)	39Ar(ca)	40Ar(r)	40Ar(a)	40Ar(k)
5F041N.01	770 °C		0.00375	0.00001	0.00000	0.02971	0.00070	0.00014	0.00000	0.00033	0.01126	0.00002	0.00000	1.10814	0.00000
5F041N.02	870 °C		0.00303	0.00002	0.00000	0.08571	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

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
1.64

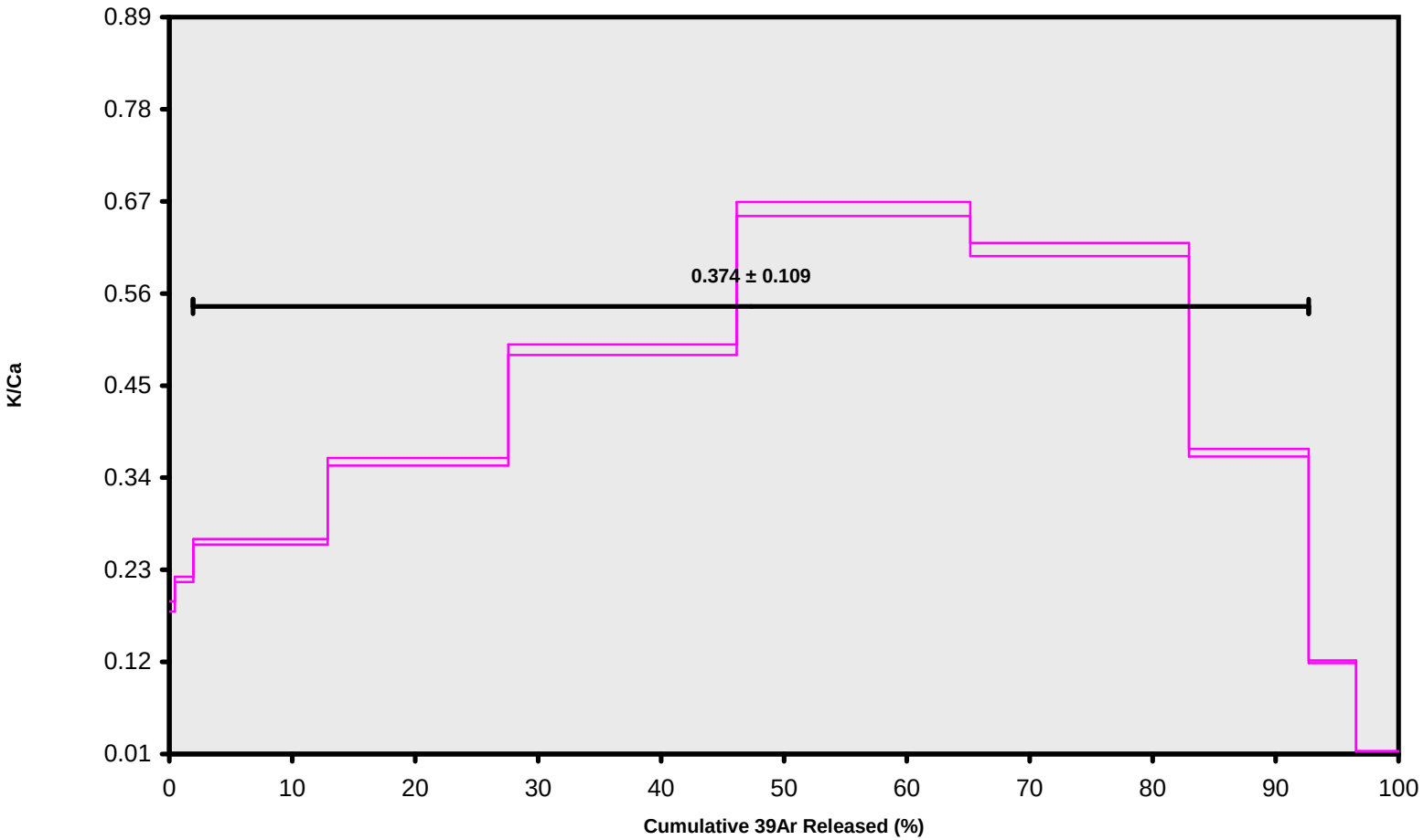
Sample Info

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

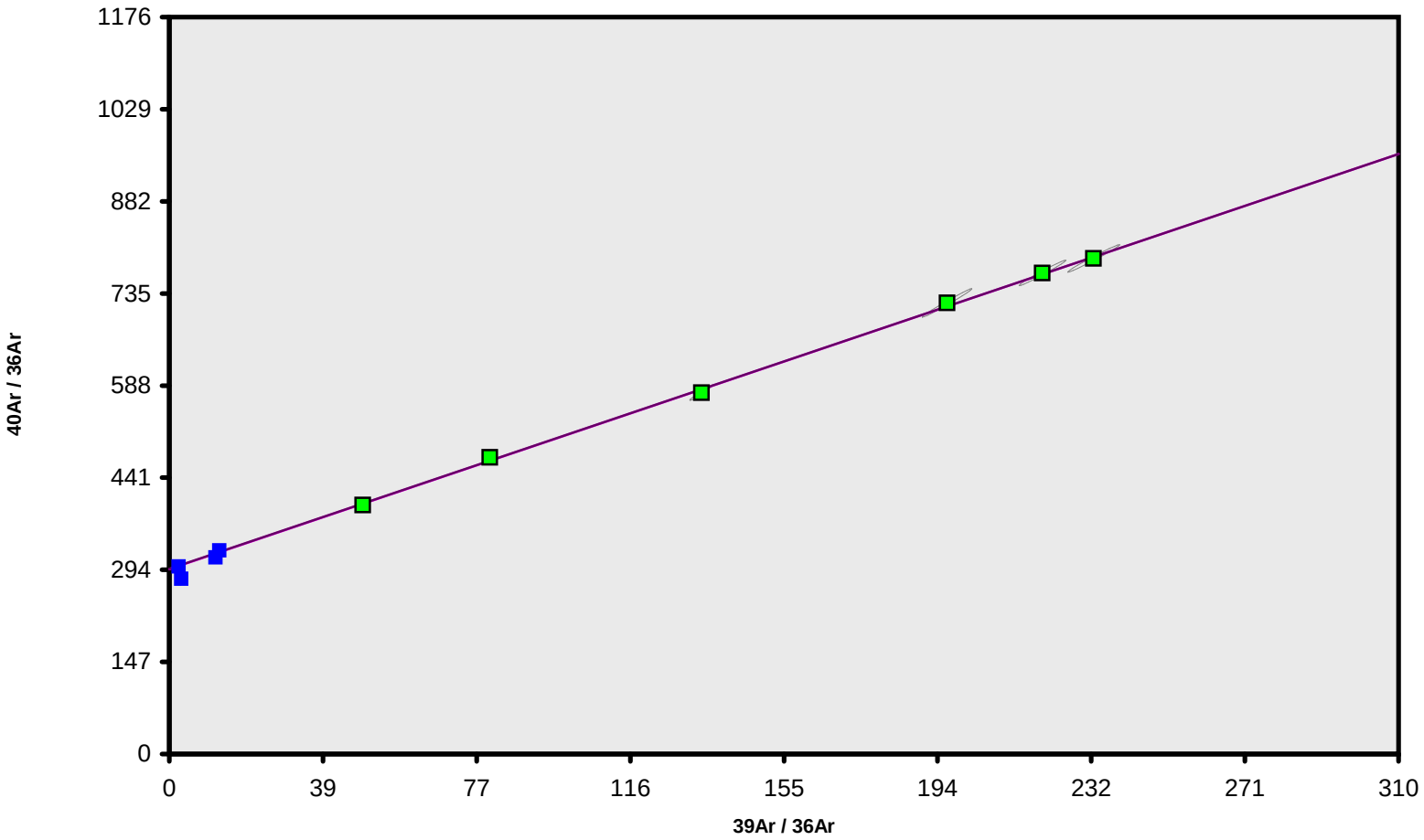
Sample Info

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

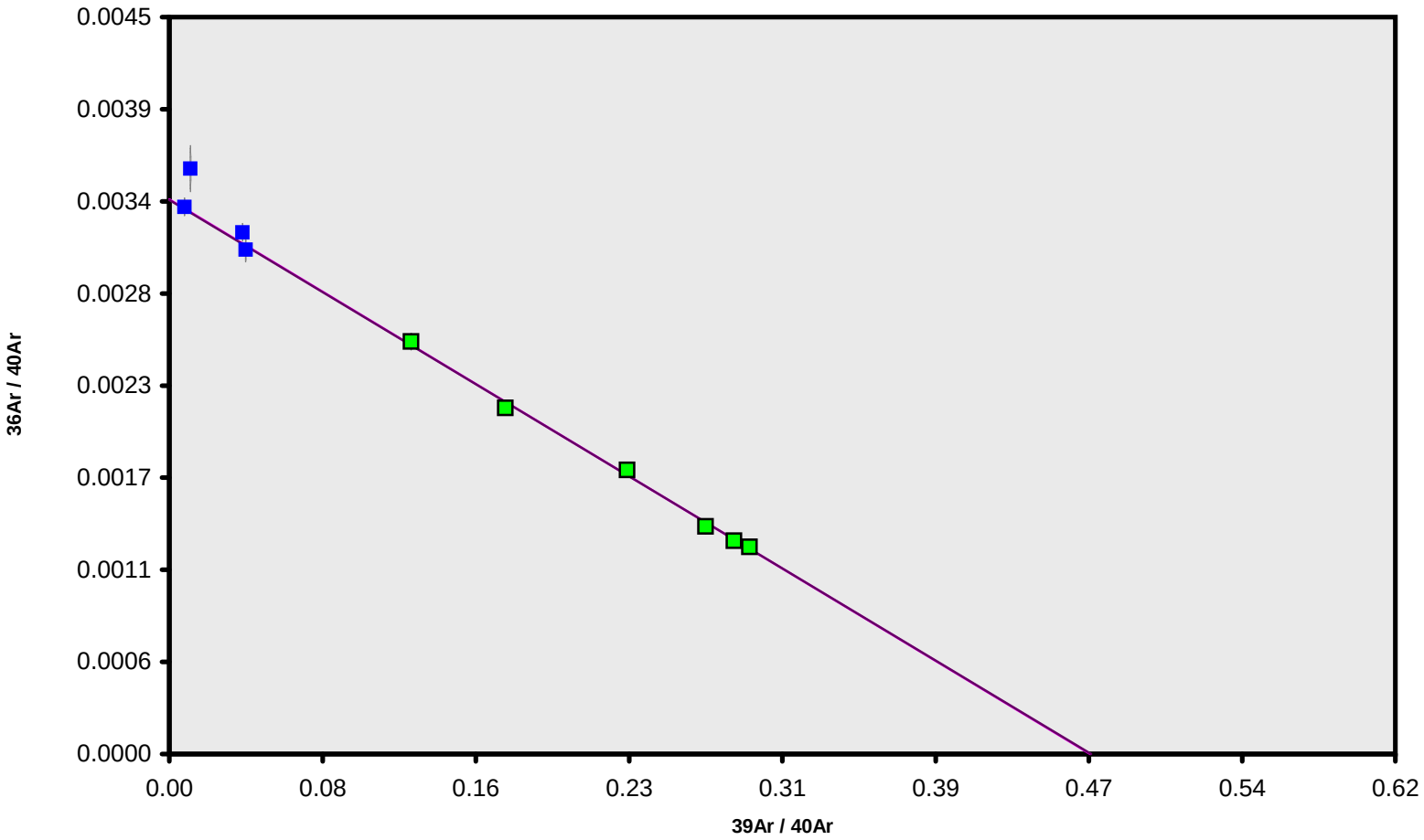
Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003103 (J)

Inverse Isochron

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
2.04

Sample Info

bas grndmss
Westaway Volcanics
msp
cl155-
0.0003103 (J)