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Data Repository for $^{40}Ar/^{39}Ar$ *Dating of the Eruptive History of Mount Erebus, Antarctica: Summit Flows, Tephra and Caldera Collapse*

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Table 1 - $^{40}Ar/^{39}Ar$ furnace step-heating data.

Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	$^{39}Ar_K$ (x 10^{-16} mol)	K/Ca	Cl/K (x 10^{-3})	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	±2s (ka)
E87004 (L#50611), 411.2 mg, J=0.0000782±0.10%, Disc.=1.00468±0.00093, NM-112 irradiation										
550**	1456.3	0.3351	4926.2	1.15	1.5	139.8	0.0	0.1	83	1816
650**	215.7	0.5129	727.9	12.7	0.99	5.6	0.3	0.9	87	257
700**	11.16	0.4941	36.19	17.9	1.0	2.1	4.3	2.2	67	32
800	3.821	0.4793	12.80	233.3	1.1	0.45	1.3	18.1	7	6
900	1.225	0.4684	3.934	237.4	1.1	0.24	6.1	34.3	10	3
1000	0.7970	0.4578	2.528	566.4	1.1	0.30	7.8	73.0	8	2
1100**	1.842	0.4433	5.802	257.1	1.2	0.76	7.5	90.5	19	4
1200**	7.084	0.4369	22.10	59.5	1.2	22.2	8.0	94.6	80	13
1350**	5.317	0.4480	16.19	76.1	1.1	4.6	10.3	99.8	77	10
1500**	60.50	0.5473	207.0	0.924	0.93	17.4	-1.1	99.8	-93	399
1750**	152.5	0.9440	514.5	2.21	0.54	6.0	0.3	100.0	67	306
total gas age			n=11	1464.6	1.1				18	9
plateau	MSWD = 0.62		n=3	1037.1	1.1			70.8	9	2
E87017 (L#50614), 412.3 mg, J=0.0000768±0.10%, Disc.=1.00468±0.00093, NM-112 irradiation										
650**	256.1	0.6498	866.5	338.6	0.79	1.7	0.0	20.5	9	275
700**	17.97	0.5804	58.10	398.4	0.88	0.59	4.6	44.5	113	19
800	4.370	0.5699	12.90	362.7	0.90	0.38	13.3	66.4	80	5
900	2.523	0.5776	6.801	162.4	0.88	0.57	21.3	76.3	74	5
1000	3.221	0.5697	9.125	161.9	0.90	0.84	17.0	86.0	75	5
1100**	7.058	0.5891	21.74	82.4	0.87	1.7	9.3	91.0	91	11
1200**	14.99	0.6537	47.54	23.2	0.78	51.2	6.5	92.4	136	30
1350**	4.487	0.8834	12.46	119.2	0.58	7.9	19.0	99.6	118	7
1500**	73.48	4.321	239.6	2.11	0.12	97.1	4.1	99.7	415	265
1750**	128.8	15.91	436.0	4.17	0.032	173.0	0.9	100.0	171	229
total gas age			n=10	1655.1	0.84				77	65
plateau	MSWD = 1.59		n=3	687.0	0.89			41.5	76	4
E87020a (L#9867), 407.3 mg, J=0.0000825±0.10%, Disc.=1.00361±0.00157, NM-99 irradiation										
550**	904.9	-0.4437	2963.0	0.098	-	88.8	3.2	0.0	4354	5926
700**	1504.9	0.3584	5027.0	2.62	1.4	79.8	1.3	0.2	2888	2903
800**	187.3	0.2498	653.2	0.367	2.0	40.9	-3.1	0.2	-858	1768
900	2.485	0.4750	8.131	518.0	1.1	0.50	3.8	34.9	14	5
1000	1.087	0.4647	3.398	365.5	1.1	0.37	8.8	59.4	14	3
1100	1.215	0.4678	4.048	258.7	1.1	0.33	2.5	76.8	4	4
1200	1.438	0.4689	4.775	172.5	1.1	0.91	2.7	88.3	6	5
1350**	5.903	0.4734	19.12	84.8	1.1	13.1	4.5	94.0	40	14
1550**	81.62	0.4988	276.2	70.9	1.0	2.4	0.0	98.8	3	155
1700**	1268.3	0.4454	4372.8	18.4	1.1	1.6	-1.9	100.0	-3556	2568
total gas age			n=10	1491.9	1.1				-27	50
plateau	MSWD = 6.26*		n=4	1314.7	1.1			88.1	10	6
E87021 (L#9866), 390.4 mg, J=0.0000829±0.10%, Disc.=1.00361±0.00157, NM-99 irradiation										
550**	-434.2505	-0.3696	-1824.4662	0.021	-	65.8	-24.1	0.0	15615	30433
700**	7198.1	1.806	24380.1	1.16	0.28	115.9	-0.1	0.1	-917	14506
800**	297.2	1.749	1034.3	1.09	0.29	30.0	-2.8	0.2	-1241	768
900**	16.17	1.073	42.87	469.3	0.48	2.9	22.0	48.9	533	91
975**	23.71	1.025	74.92	142.9	0.50	1.4	6.8	63.7	243	50
1100	30.00	1.182	100.2	107.9	0.43	0.97	1.5	74.9	69	58
1200	47.16	1.185	158.3	80.0	0.43	5.8	1.0	83.2	69	92
1350	7.873	1.165	25.13	111.0	0.44	8.0	6.5	94.7	77	16
1550	43.25	1.407	146.8	39.2	0.36	2.3	-0.1	98.8	-6	87
1700**	235.7	1.360	795.3	11.8	0.38	2.6	0.3	100.0	113	460
total gas age			n=10	964.4	0.46				316	96
plateau	MSWD = 1.17		n=4	338.1	0.43			35.1	73	23

Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	$^{39}Ar_K$ (x 10^{-16} mol)	K/Ca	Cl/K (x 10^{-3})	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	±2s (ka)
E87026 (L#50617), 399.8 mg, J=0.000075±0.10%, Disc.=1.00468±0.00093, NM-112 irradiation										
550**	915.3	0.9120	3086.5	13.6	0.56	13.1	0.4	2.1	453	958
650**	29.95	1.380	95.82	43.3	0.37	1.0	5.7	8.8	233	36
700**	10.12	1.333	29.66	52.9	0.38	1.0	14.2	17.0	194	16
800**	10.66	1.308	32.94	36.1	0.39	1.3	9.4	22.6	136	20
900**	6.270	1.328	16.58	181.1	0.38	0.86	23.2	50.6	196	7
1000**	3.742	1.391	9.371	62.6	0.37	1.2	28.4	60.2	143	10
1100**	6.807	1.361	19.28	57.2	0.37	2.3	17.5	69.1	161	12
1200**	13.43	1.344	35.58	30.7	0.38	42.3	22.4	73.8	407	22
1350**	2.846	1.276	7.914	109.3	0.40	2.8	20.6	90.7	79	6
1750**	6.385	1.575	19.59	60.1	0.32	1.7	10.9	100.0	94	11
total gas age			n=10	646.8	0.38				173	32
plateau	MSWD = n.a.		n=0	n.a.	n.a.			0.0	n.a.	n.a.
E87030a (L#9865), 410.8 mg, J=0.0000817±0.10%, Disc.=1.00361±0.00157, NM-99 irradiation										
550**	1254.4	0.3800	4276.9	1.26	1.3	159.3	-0.7	0.1	-1385	2458
700**	533.4	0.4892	1819.9	2.24	1.0	57.1	-0.8	0.2	-640	1089
800**	-46.4361	0.2384	-236.6287	0.079	2.1	11.3	-50.5	0.3	3460	5868
900	2.010	0.4288	6.704	535.2	1.2	0.65	1.9	38.5	5	5
975	1.0000	0.4138	3.109	170.9	1.2	0.52	9.0	50.7	13	4
1100	1.165	0.4154	3.580	469.3	1.2	0.41	10.0	84.3	17	3
1200**	2.750	0.4140	8.726	87.1	1.2	1.1	6.6	90.5	26	9
1350**	7.832	0.4297	25.82	111.1	1.2	10.6	2.7	98.4	31	16
1550**	73.52	0.4332	252.1	11.2	1.2	4.0	-1.3	99.3	-141	157
1700**	138.8	0.4306	468.1	10.5	1.2	1.9	0.3	100.0	65	285
total gas age			n=10	1398.9	1.2				11	13
plateau	MSWD = 7.52*		n=3	1175.4	1.2			84.0	14	6
E87033 (L#50615), 410.0 mg, J=0.000075±0.10%, Disc.=1.00468±0.00093, NM-112 irradiation										
550**	1421.9	0.5953	4770.2	14.2	0.86	14.9	0.9	0.9	1669	1498
650**	232.3	0.4226	782.2	113.9	1.2	2.2	0.5	8.1	166	238
700	51.37	0.4907	171.6	142.0	1.0	1.0	1.3	17.0	92	54
800	29.21	0.4889	96.71	502.1	1.0	0.68	2.2	48.6	88	32
900	3.389	0.4481	9.223	248.6	1.1	0.37	20.0	64.3	91	5
1000	3.941	0.4547	11.10	206.4	1.1	0.51	17.2	77.2	91	5
1100**	4.959	0.4734	14.10	130.6	1.1	1.4	16.3	85.5	109	7
1200**	12.71	0.5200	39.30	44.9	0.98	29.7	8.8	88.3	151	22
1350**	3.309	0.6186	8.414	176.9	0.82	3.6	25.8	99.4	114	5
1500**	104.1	1.736	332.5	1.91	0.29	34.1	5.7	99.6	808	345
1750**	85.66	12.49	288.1	7.10	0.041	115.0	1.7	100.0	200	153
total gas age			n=11	1588.6	1.0				117	50
plateau	MSWD = 0.01		n=4	1099.1	1.1			69.2	91	4
E87034 (L#842), 97.4 mg, J=0.0000809±0.10%, D=1.0107±0.0015, NM-10 irradiation										
700	13.09	0.5050	44.08	0.416	1.0	0.53	0.6	10.7	12	26
750	5.643	0.5022	18.62	0.289	1.0	0.55	2.8	18.1	23	17
850	3.277	0.4924	10.63	0.304	1.0	0.53	4.6	26.0	22	15
900	1.997	0.4942	6.601	0.233	1.0	0.43	3.1	32.0	9	10
950	2.069	0.4965	7.005	0.147	1.0	0.39	0.7	35.8	2	13
1050	1.796	0.4979	5.900	0.237	1.0	0.32	3.9	41.8	10	10
1150**	1.718	0.4977	5.147	0.249	1.0	0.46	12.6	48.3	31	9
1300**	2.515	0.4962	7.700	0.345	1.0	0.69	10.2	57.1	37	9
1450**	3.430	0.5153	10.13	0.492	0.99	1.6	13.4	69.8	66	9
1650**	0.7307	0.5105	1.957	0.902	1.00	0.65	24.0	93.0	25	3
1650**	7.304	0.4950	24.13	0.272	1.0	0.84	2.6	100.0	28	19
total gas age			n=11	3.89	1.0				27	11
plateau	MSWD=1.22		n=6	1.63	1.0			41.8	11	8

Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	$^{39}Ar_K$ (x 10^{-16} mol)	K/Ca	Cl/K (x 10^{-3})	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	±2s (ka)
E87035 (L#50612), 406.6 mg, J=0.0000762±0.10%, Disc.=1.00468±0.00093, NM-112 irradiation										
550**	-742.4003	-3.0456	-3781.3342	0.069	-	-228.808	-50.5	0.0	50684	37164
650**	464.0	0.5492	1565.6	14.2	0.93	36.0	0.3	1.3	191	498
700	3.891	0.5069	13.13	389.1	1.0	1.0	0.6	37.9	3	5
800	2.660	0.4993	8.873	193.2	1.0	0.64	1.9	56.0	7	4
900	1.624	0.5080	5.184	113.3	1.0	0.30	6.7	66.7	15	6
1000	1.534	0.4999	4.892	192.0	1.0	0.58	6.8	84.7	14	4
1100	3.095	0.4891	10.19	116.8	1.0	1.3	3.2	95.7	13	7
1200**	11.41	0.4836	36.68	22.0	1.1	51.8	5.2	97.7	81	25
1350**	8.444	0.5262	25.96	23.3	0.97	16.6	9.4	99.9	108	21
1500**	63.64	0.5612	224.8	0.457	0.91	39.8	-4.3	100.0	-379	581
1750**	236.0	0.7994	821.7	0.461	0.64	21.6	-2.9	100.0	-936	807
total gas age			n=11	1064.8	1.0				17	15
plateau	MSWD = 4.16*		n=5	1004.3	1.0			94.3	10	5
E87039 (L#9864), 408.5 mg, J=0.0000795±0.10%, Disc.=1.00361±0.00157, NM-99 irradiation										
550**	316.5	0.3887	1104.0	0.283	1.3	242.9	-3.1	0.0	-1393	1699
700**	23.37	0.6854	75.99	70.1	0.74	3.4	4.0	6.1	135	44
800	3.820	0.6366	11.24	32.3	0.80	1.3	13.8	8.9	75	17
900	2.005	0.6148	4.657	417.4	0.83	0.45	32.9	45.2	93	4
975	2.389	0.6078	5.713	110.2	0.84	0.57	30.6	54.7	104	6
1100**	3.162	0.6081	7.758	129.0	0.84	1.2	28.4	65.9	128	7
1200**	6.977	0.6190	19.33	53.6	0.82	18.9	18.5	70.6	185	15
1350**	2.435	0.5944	5.607	304.0	0.86	1.4	33.2	97.0	115	4
1550**	32.34	0.7069	107.0	24.0	0.72	2.5	2.3	99.0	107	63
1700**	79.48	0.7674	270.8	11.0	0.66	3.0	-0.7	100.0	-74	161
total gas age			n=10	1151.8	0.83				109	11
plateau	MSWD = 7.24*		n=3	559.8	0.83			48.6	95	9
E87040 (L#8855), 314.77 mg, J=0.0000896±0.10%, Disc.=1.00258±0.00114, NM-85 irradiation										
550**	895.1	0.1479	3015.2	4.48	3.5	26.9	0.5	0.4	661	1437
700**	9.902	0.4717	33.01	115.8	1.1	1.4	1.6	9.7	26	17
800	2.552	0.4708	8.702	422.1	1.1	0.42	-0.3	43.6	-1	5
900	2.278	0.4772	7.777	269.8	1.1	0.28	-0.4	65.3	-1	5
1000	2.427	0.4745	8.133	207.2	1.1	0.52	1.5	81.9	6	5
1100	4.235	0.4668	14.18	93.7	1.1	0.91	1.3	89.5	9	10
1200**	9.788	0.4850	31.50	56.2	1.1	14.6	5.0	94.0	80	19
1300**	7.393	0.5229	22.15	48.2	0.98	6.5	11.7	97.9	140	15
1400**	5.547	0.5408	15.66	13.8	0.94	2.2	16.9	99.0	151	20
1500**	8.851	0.5754	27.82	3.60	0.89	3.0	7.4	99.3	105	57
1600**	14.84	0.7363	48.27	5.24	0.69	4.1	4.1	99.7	99	52
1700**	26.55	0.6650	84.41	3.82	0.77	2.5	6.1	100.0	263	87
total gas age			n=12	1244.0	1.1				18	13
plateau	MSWD = 2.60		n=4	992.9	1.1			79.8	1	5

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E87045 (L#50616), 371.9 mg, J=0.0000767±0.10%, Disc.=1.00468±0.00093, NM-112 irradiation										
550**	1189.0	1.955	4056.1	59.6	0.26	2.2	-0.8	7.3	-1306	1521
650	13.16	1.778	38.18	151.5	0.29	0.72	15.1	25.7	276	15
700	12.78	1.770	37.52	73.3	0.29	0.65	14.2	34.7	250	17
800**	8.001	1.827	19.90	109.4	0.28	0.73	28.0	48.0	310	11
900**	6.651	1.864	13.22	123.4	0.27	0.54	43.2	63.0	397	8
1000**	6.833	1.879	13.12	119.6	0.27	0.49	45.2	77.6	426	8
1100**	13.69	1.829	20.92	85.1	0.28	0.59	55.8	88.0	1056	12
1200**	29.24	1.851	61.60	31.6	0.28	0.84	38.2	91.8	1545	31
1300**	78.54	1.857	36.04	25.2	0.27	1.0	86.6	94.9	9402	47
1500**	24.91	1.984	41.51	34.2	0.26	0.95	51.3	99.1	1770	25
1650**	45.10	2.005	134.9	7.65	0.25	-0.195	11.9	100.0	742	80
total gas age			n=11	820.6	0.28				680	124
plateau	MSWD = 4.60*		n=2	224.8	0.29			27.4	264	28
E87051 (L#8860), 332.53 mg, J=0.0000875±0.10%, Disc.=1.00258±0.00114, NM-85 irradiation										
550**	614.8	0.0737	2060.9	0.400	6.9	44.5	0.9	0.0	908	1459
700	10.03	0.4353	34.01	49.9	1.2	1.5	-0.1	4.8	-2	19
800	1.632	0.4267	5.239	20.5	1.2	1.3	5.7	6.8	15	12
900	1.574	0.4094	5.277	415.6	1.2	0.41	1.4	46.6	3	3
1000	2.078	0.4152	6.993	266.8	1.2	0.37	0.9	72.1	3	4
1100	2.460	0.4195	8.210	120.0	1.2	0.76	1.7	83.6	6	6
1200**	5.922	0.4152	19.54	91.3	1.2	8.8	2.6	92.4	25	17
1350**	4.957	0.4581	16.06	65.2	1.1	6.6	4.5	98.6	35	16
1550**	3.923	0.5514	12.72	9.68	0.93	6.1	4.7	99.5	29	45
1700**	21.95	0.6203	74.51	4.84	0.82	3.1	-0.2	100.0	-7	130
total gas age			n=10	1044.3	1.2				8	8
plateau	MSWD = 1.20		n=5	872.8	1.2			83.6	4	3
E87054 (L#8857), 416.07 mg, J=0.0000907±0.10%, Disc.=1.00258±0.00114, NM-85 irradiation										
550**	2121.8	0.5394	7225.4	0.477	0.95	228.2	-0.6	0.0	-2169	5067
700**	29.91	0.4824	103.4	36.0	1.1	2.7	-2.1	2.8	-104	69
800	1.918	0.4383	6.417	228.1	1.2	0.39	1.6	20.4	5	7
900	0.9810	0.4257	3.234	553.8	1.2	0.37	3.5	63.2	5	3
1000	1.014	0.4154	3.110	131.8	1.2	0.63	10.3	73.4	17	7
1100	1.649	0.4264	5.219	243.3	1.2	0.73	7.1	92.2	19	6
1200**	6.778	0.4183	21.69	52.6	1.2	21.0	5.6	96.2	62	29
1350**	6.177	0.5707	19.73	44.8	0.89	17.5	6.0	99.7	60	26
1550**	10.10	1.571	30.60	2.86	0.32	18.2	11.4	99.9	188	148
1700**	134.6	3.194	461.0	0.932	0.16	30.7	-1.0	100.0	-224	762
total gas age			n=10	1294.5	1.2				10	11
plateau	MSWD = 7.71*		n=4	1156.9	1.2			89.4	9	7
E87061 (L#50613), 368.3 mg, J=0.000073±0.10%, Disc.=1.00468±0.00093, NM-112 irradiation										
550**	968.7	0.3201	3376.0	0.874	1.6	-8.253	-3.0	0.1	-3806	1280
650	24.03	0.3364	81.21	54.9	1.5	0.25	0.1	4.2	4	29
700	3.850	0.3217	12.48	301.0	1.6	0.37	4.2	26.7	21	5
800	3.098	0.3148	9.936	201.1	1.6	0.42	5.2	41.7	21	5
900	3.399	0.3103	10.97	399.2	1.6	0.33	4.7	71.5	21	4
1000**	4.102	0.3174	13.08	223.8	1.6	0.31	5.8	88.3	31	6
1100**	8.509	0.3203	28.10	89.2	1.6	0.64	2.4	94.9	27	13
1200**	23.41	0.3245	76.18	30.8	1.6	1.1	3.8	97.2	119	35
1300**	12.28	0.3457	35.99	25.1	1.5	1.4	13.5	99.1	217	29
1500**	9.109	1.079	23.49	9.35	0.47	1.5	24.5	99.8	293	61
1650**	74.98	1.114	249.5	2.35	0.46	-0.989	1.7	100.0	171	347
total gas age			n=11	1337.6	1.6				28	9
plateau	MSWD = 0.46		n=4	956.2	1.6			71.5	21	4

Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	$^{39}Ar_K$ (x 10^{-16} mol)	K/Ca	Cl/K (x 10^{-3})	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	±2s (ka)
E87062a (L#9870), 407.9 mg, J=0.0000837±0.10%, Disc.=1.00361±0.00157, NM-99 irradiation										
550**	1217.2	0.5790	4193.1	0.696	0.88	74.3	-1.8	0.0	-3299	2723
700**	14.17	0.3869	46.63	113.7	1.3	1.0	2.8	7.7	60	29
800	3.088	0.3621	9.695	52.9	1.4	0.66	7.4	11.3	34	11
900	1.282	0.3483	3.716	598.1	1.5	0.33	14.8	51.5	28	3
975	1.298	0.3475	3.811	267.0	1.5	0.28	13.6	69.5	26	4
1100	1.578	0.3453	4.703	254.6	1.5	0.47	12.2	86.6	29	4
1200	4.015	0.3458	13.22	88.5	1.5	9.4	2.8	92.6	17	10
1350**	7.867	0.3563	24.92	78.4	1.4	4.7	6.5	97.9	76	17
1550**	40.35	0.4107	137.5	23.0	1.2	4.1	-0.7	99.4	-43	85
1700**	1121.5	0.3686	3780.9	8.76	1.4	3.1	0.4	100.0	635	2284
total gas age			n=10	1485.7	1.4				33	23
plateau	MSWD = 1.72		n=5	1261.0	1.5			84.9	27	3
E87066 (L#9869), 418.3 mg, J=0.0000835±0.10%, Disc.=1.00361±0.00157, NM-99 irradiation										
550**	1376.1	0.8232	4696.4	0.932	0.62	105.7	-0.8	0.1	-1764	2914
700**	98.92	0.6011	337.4	60.5	0.85	1.8	-0.8	4.1	-112	192
800**	4.366	0.5131	14.03	33.9	0.99	1.0	5.4	6.4	35	18
900	1.939	0.4663	6.381	648.3	1.1	0.36	3.4	49.6	10	4
1000	1.498	0.4660	4.674	267.9	1.1	0.38	8.7	67.5	19	4
1100	1.846	0.4648	5.794	212.8	1.1	0.50	7.9	81.7	22	5
1200**	3.788	0.4645	11.95	85.2	1.1	10.8	7.1	87.3	40	10
1350**	3.753	0.4837	12.06	172.7	1.1	3.2	5.4	98.8	30	8
1550**	43.60	0.4965	147.6	12.1	1.0	9.0	0.0	99.7	-1	103
1700**	480.9	0.3996	1607.6	5.19	1.3	8.7	1.2	100.0	889	987
total gas age			n=10	1499.5	1.1				15	19
plateau	MSWD = 8.31*		n=3	1129.0	1.1			75.3	17	8
E87083 (L#8851), 348.84 mg, J=0.0000921±0.10%, Disc.=1.00258±0.00114, NM-85 irradiation										
550**	304.9	0.4081	1039.5	4.30	1.3	37.9	-0.7	0.3	-367	554
700	1.549	0.3880	5.106	604.4	1.3	0.36	3.0	35.7	7	3
800	1.125	0.3871	3.724	244.5	1.3	0.23	2.7	50.1	5	3
900	1.447	0.3871	4.799	317.8	1.3	0.22	2.4	68.7	6	3
1000	1.641	0.3876	5.441	248.1	1.3	0.24	2.3	83.2	6	4
1100	2.202	0.3885	7.273	127.1	1.3	1.00	2.6	90.7	10	6
1200**	5.745	0.3959	18.87	73.0	1.3	16.2	3.1	95.0	29	12
1300**	2.850	0.4210	8.494	75.1	1.2	1.8	12.3	99.4	58	7
1400**	1.878	0.4502	5.579	4.53	1.1	2.8	12.9	99.7	40	40
1500**	7.283	0.5501	23.20	1.87	0.93	5.0	6.2	99.8	74	106
1600**	8.578	0.6784	28.51	2.21	0.75	7.3	2.1	99.9	30	90
1700**	25.87	0.6643	84.06	1.84	0.77	3.9	4.1	100.0	176	140
total gas age			n=12	1704.6	1.3				9	6
plateau	MSWD = 0.68		n=5	1541.8	1.3			90.5	6	2

Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	$^{39}Ar_K$ (x 10^{-16} mol)	K/Ca	Cl/K (x 10^{-3})	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	±2s (ka)
E93013 (L#2646), 110.9 mg, J=0.0000755±0.10%, D=1.0075±0.0023, NM-28 irradiation										
550**	204.3	0.4630	720.0	1.91	1.1	19.9	-4.2	0.4	-1158	645
700	7.675	0.5156	23.68	49.4	0.99	0.62	9.1	11.0	94	22
800	6.447	0.5037	19.26	50.4	1.0	0.63	12.0	21.8	105	18
900	4.876	0.5076	14.53	54.8	1.0	0.083	12.3	33.6	81	15
1000	3.583	0.5134	9.859	50.0	0.99	0.47	19.2	44.3	93	13
1100	4.360	0.5172	13.14	52.1	0.99	0.87	11.3	55.5	67	14
1200**	9.499	0.5155	29.13	31.3	0.99	11.9	9.6	62.2	124	28
1300**	3.584	0.5037	8.273	70.6	1.0	1.2	32.4	77.3	157	10
1400**	1.786	0.5171	3.601	39.7	0.99	0.67	41.8	85.8	100	8
1550**	3.500	0.5262	9.288	26.6	0.97	0.85	22.2	91.5	105	16
1750**	27.26	0.5270	87.75	32.1	0.97	0.99	5.0	98.4	184	73
1750**	79.12	0.5153	257.4	7.35	0.99	0.99	3.9	100.0	419	221
total gas age			n=12	466.1	1.00				109	25
plateau	MSWD = 3.45*		n=5	256.6	1.00			55.1	86	15
EBT-2 (L#8852), 136.79 mg, J=0.0000922±0.10%, Disc.=1.00258±0.00114, NM-85 irradiation										
550**	1192.0	0.8261	4091.4	0.482	0.62	170.3	-1.4	0.1	-2829	2474
700	46.05	1.002	153.2	6.20	0.51	8.3	1.8	1.4	140	113
840	3.857	0.5535	11.68	69.8	0.92	1.2	11.1	16.4	71	9
960	1.672	0.5139	4.259	204.1	0.99	0.60	26.0	60.3	71	4
1100**	3.110	0.5024	7.292	105.2	1.0	0.56	31.4	82.9	161	6
1200**	10.94	0.6709	26.91	44.4	0.76	14.6	27.6	92.4	502	18
1300**	12.24	0.6023	15.66	26.3	0.85	6.3	62.5	98.0	1270	18
1400**	6.080	0.7317	14.97	7.47	0.70	3.4	27.9	99.6	281	33
1500**	19.77	1.148	27.66	0.558	0.44	12.4	59.1	99.8	1941	340
1600**	66.92	1.000	196.4	0.493	0.51	3.5	13.4	99.9	1487	431
1700**	104.3	0.8458	326.2	0.633	0.60	4.7	7.6	100.0	1325	392
total gas age			n=11	465.7	0.94				207	13
plateau	MSWD = 0.74		n=3	280.2	0.96			60.2	71	5
EBT-42 (L#8854), 322.31 mg, J=0.0000908±0.10%, Disc.=1.00258±0.00114, NM-85 irradiation										
550**	213.9	1.697	684.5	21.9	0.30	20.2	5.5	1.4	1932	321
700**	12.69	0.5985	32.30	222.8	0.85	1.8	25.0	15.5	519	25
800**	4.731	0.5118	6.747	308.2	1.00	0.85	58.5	35.1	451	7
900**	4.620	0.4891	4.000	402.0	1.0	0.63	75.1	60.6	566	8
1000**	5.512	0.5081	5.297	280.0	1.0	0.54	72.2	78.4	649	5
1100**	9.223	0.5476	11.16	114.1	0.93	1.2	64.6	85.6	974	10
1200**	24.43	1.069	32.54	108.2	0.48	13.7	60.9	92.5	2438	22
1300**	23.06	0.7697	16.50	103.0	0.66	4.1	79.1	99.0	2985	17
1400**	17.41	1.582	20.51	10.2	0.32	10.6	65.8	99.7	1876	33
1500**	65.79	7.808	101.2	2.25	0.065	62.2	55.4	99.8	5998	169
1600**	163.1	5.763	370.1	1.98	0.089	45.5	33.2	99.9	8891	338
1700**	138.9	3.950	339.2	1.09	0.13	31.2	28.1	100.0	6395	381
total gas age			n=12	1575.7	0.91				918	17
plateau	MSWD = n.a.		n=0	n.a.	n.a.			0.0	n.a.	n.a.

Temp (°C)	^{40}Ar/^{39}Ar	^{37}Ar/^{39}Ar	^{36}Ar/^{39}Ar (x 10^{-3})	^{39}Ar$_K$ (x 10^{-16} mol)	K/Ca	Cl/K (x 10^{-3})	^{40}Ar* (%)	^{39}Ar (%)	Age (ka)	±2s (ka)
EBT-53 (L#8853), 421.59 mg, J=0.0000918±0.10%, Disc.=1.00258±0.00114, NM-85 irradiation										
550**	945.9	1.622	3217.9	1.91	0.31	120.2	-0.5	0.1	-816	1584
625**	103.7	0.9515	312.1	2.78	0.54	6.9	11.1	0.3	1909	240
700**	0.5808	0.6672	-4.2297	1.44	0.76	4.0	334.2	0.4	308	160
775**	4.432	0.5949	12.59	195.4	0.86	0.99	16.6	13.1	121	7
850	1.671	0.5603	3.906	255.1	0.91	0.37	32.5	29.7	89	4
925	1.504	0.5516	3.417	410.2	0.92	0.37	34.6	56.4	85	3
1000**	1.771	0.5267	3.991	332.0	0.97	0.40	34.8	77.9	101	3
1100**	2.907	0.5504	7.190	158.9	0.93	1.0	27.7	88.3	133	5
1200**	8.551	0.6335	19.47	114.5	0.81	13.3	33.1	95.7	468	18
1300**	14.87	1.575	23.80	53.0	0.32	19.0	53.5	99.2	1316	25
1400**	15.60	2.431	28.06	9.27	0.21	25.1	48.0	99.8	1239	59
1500**	44.77	35.31	115.9	1.59	0.014	325.5	29.6	99.9	2246	353
1600**	106.2	27.68	310.5	1.18	0.018	248.4	15.6	99.9	2794	620
1700**	186.8	9.939	527.9	0.924	0.051	81.5	16.9	100.0	5249	720
total gas age			n=14	1538.3	0.89				186	10
plateau	MSWD = 2.54		n=2	665.3	0.92			43.3	86	4
BIT-272 (L#8428), 144.5 mg, J=0.0001199±0.10%, D=1.0126±0.00085, NM-78 irradiation										
550**	1475.9	-0.4577	5025.5	0.014	-	-14.885	-0.6	0.0	-1994	69702
700	1.417	0.3940	4.226	24.0	1.3	0.77	14.0	6.8	43	41
800	0.5902	0.3802	1.415	13.5	1.3	0.71	34.1	10.6	44	80
900	0.4097	0.3787	0.8942	155.7	1.3	0.50	42.6	54.9	38	7
1000	0.4674	0.3619	1.048	106.4	1.4	0.50	39.7	85.1	40	10
1100	1.125	0.3512	3.000	28.9	1.5	0.72	23.6	93.4	57	35
1250**	5.405	0.3756	16.47	15.8	1.4	0.85	10.5	97.9	123	64
1350**	7.706	0.4374	23.76	4.82	1.2	0.51	9.3	99.2	156	206
1425**	34.67	0.3571	106.6	0.146	1.4	0.36	9.2	99.3	690	6064
1500**	15.67	0.0476	51.58	0.955	10.7	-0.882	2.7	99.5	92	1010
1750**	51.33	0.1759	165.5	0.599	2.9	-0.545	4.7	99.7	525	1642
1800**	36.07	0.0382	117.9	1.02	13.3	1.5	3.4	100.0	267	978
total gas age			n=12	351.8	1.4				48	34
plateau	MSWD = 0.33		n=5	328.5	1.4			93.4	39	6
EBT-63 (L#50618), 405.1 mg, J=0.0000719±0.10%, Disc.=1.00468±0.00093, NM-112 irradiation										
550**	1960.2	0.2747	6647.3	0.729	1.9	228.6	-0.2	0.1	-522	2198
650**	1674.6	0.4807	5678.1	21.7	1.1	12.2	-0.2	1.8	-423	1691
700**	38.40	0.4532	115.1	9.20	1.1	4.3	11.4	2.6	570	86
800**	26.80	0.5655	88.96	64.0	0.90	1.9	2.0	7.8	69	30
900	4.581	0.5438	15.16	580.7	0.94	0.39	2.6	54.9	15	5
1000	7.086	0.5404	23.65	304.7	0.94	0.46	1.6	79.6	15	8
1100**	19.71	0.5211	64.87	146.8	0.98	1.4	2.8	91.5	72	21
1200**	29.27	0.5292	91.46	42.2	0.96	30.0	7.7	95.0	293	33
1350**	10.20	0.6017	28.71	56.8	0.85	9.9	17.1	99.6	226	14
1750**	71.53	0.8073	160.1	5.38	0.63	21.6	33.9	100.0	3144	124
total gas age			n=10	1232.4	0.94				54	42
plateau	MSWD = 0.01		n=2	885.5	0.94			71.9	15	4

Isotopic ratios corrected for blank, radioactive decay, and mass discrimination, not corrected for interferring reactions.

Individual analyses show analytical error only; mean age errors also include error in J and irradiation parameters.

Correction factors:

(39Ar/37Ar)Ca = 0.00070±0.00005

(36Ar/37Ar)Ca = 0.00026±0.00002

(38Ar/39Ar)K = 0.0119 (0.0108 for NM-10, NM-28 and NM-78)

(40Ar/39Ar)K = 0.0250±0.0050 (0.0220±0.0010 for NM-10; 0.0002±0.0003 for NM-78)

*Not within 95% tolerance, Mahon (1996) error calculation method used

**Step not used to calculate plateau age.

Table 2 - $^{40}Ar/^{39}Ar$ laser step-heating data.

Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	$^{39}Ar_K$ (x 10^{-16} mol)	K/Ca	Cl/K (x 10^{-3})	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	±2s (ka)
E87020b (L#9873), 101.86 mg, J=0.0000848±0.10%, D=1.00754±0.001523, NM-99 irradiation										
1.0**	109.5	2.075	355.6	19.1	0.25	3.4	4.2	1.3	703	599
2.5**	5.718	0.6035	18.42	216.8	0.85	0.17	5.2	15.8	45	19
3.8	1.422	0.5105	4.703	283.2	1.00	0.27	3.4	34.8	7	4
5.7	1.086	0.4725	3.430	315.8	1.1	0.27	7.9	56.0	13	3
7.0**	1.086	0.4550	3.117	210.8	1.1	0.28	16.5	70.1	27	4
8.0**	1.128	0.3945	3.144	124.9	1.3	0.30	18.6	78.5	31	5
9.0**	0.9634	0.3820	2.763	86.1	1.3	0.60	16.2	84.3	23	6
12.0**	1.230	0.3782	3.480	71.8	1.3	0.60	17.1	89.1	32	7
15.0**	0.9861	0.3885	2.640	32.4	1.3	0.47	22.0	91.2	32	16
25.0**	1.493	0.3325	3.991	23.5	1.5	0.35	21.4	92.8	48	22
45.0**	0.5867	0.4458	1.284	107.0	1.1	0.45	38.6	100.0	33	5
total gas age			n=11	1491.5	1.1				33	15
plateau	MSWD = 4.58*		n=2	599.0	1.0			40.2	11	6
E87030b (L#9872), 199.23 mg, J=0.0000849±0.10%, D=1.00754±0.001523, NM-99 irradiation										
1.0**	137.8	0.9945	466.0	11.5	0.51	4.3	0.1	0.8	26	367
1.5	28.56	0.6091	95.84	27.3	0.84	1.5	0.9	2.6	40	59
2.0	5.401	0.3909	17.85	61.5	1.3	0.42	2.5	6.6	20	14
2.5	2.304	0.3678	7.417	92.4	1.4	0.52	5.1	12.7	18	7
3.0	1.265	0.3881	3.915	103.5	1.3	0.34	9.1	19.6	17	5
4.5	0.8599	0.3944	2.685	298.8	1.3	0.32	8.6	39.4	11	3
6.0	0.6947	0.4044	2.121	279.2	1.3	0.24	11.1	57.8	11	3
7.0	0.6985	0.3932	2.013	180.3	1.3	0.51	16.2	69.7	17	3
8.0	0.7713	0.3820	2.249	133.5	1.3	0.43	14.9	78.6	17	4
9.0	0.8432	0.3796	2.471	94.7	1.3	0.50	14.4	84.8	18	4
10.0**	0.9298	0.3695	2.686	66.9	1.4	0.42	15.4	89.3	21	6
12.0**	1.010	0.4122	2.961	48.0	1.2	0.77	14.4	92.4	22	8
15.0**	1.099	0.4173	3.363	27.5	1.2	0.61	10.5	94.3	17	12
25.0**	1.939	0.4715	6.347	20.2	1.1	0.61	3.9	95.6	11	17
45.0**	0.7000	0.4409	1.757	66.6	1.2	0.57	28.2	100.0	29	5
total gas age			n=15	1511.8	1.3				16	8
plateau	MSWD = 2.63*		n=9	1271.2	1.3			84.1	14	2
E87030c (L#9879), 203.35 mg, J=0.0000839±0.10%, D=1.00754±0.001523, NM-99 irradiation										
1.0**	187.5	2.377	616.6	15.1	0.21	2.6	2.9	0.9	823	763
3.0**	5.684	0.4917	18.16	282.6	1.0	0.29	5.8	18.4	50	27
4.5	1.152	0.4083	3.732	341.3	1.2	0.28	5.0	39.6	9	4
6.0	0.9772	0.3822	3.064	314.9	1.3	0.31	8.0	59.0	12	3
7.0**	0.9805	0.3650	2.819	216.2	1.4	0.25	15.8	72.4	23	4
8.0**	1.101	0.3303	3.002	146.6	1.5	0.61	19.9	81.5	32	5
9.0**	1.093	0.3467	3.115	90.5	1.5	0.65	16.4	87.1	26	6
12.0**	1.433	0.2850	3.805	61.1	1.8	0.47	21.7	90.9	46	8
15.0**	1.232	0.2876	3.458	29.7	1.8	0.49	17.2	92.7	31	15
25.0**	2.542	0.3478	7.048	24.7	1.5	1.0	18.3	94.3	70	18
45.0**	0.7164	0.4196	1.792	92.8	1.2	0.63	28.1	100.0	29	5
total gas age			n=11	1615.4	1.5				33	16
plateau	MSWD = 0.00		n=2	1615.4	1.5			100.0	10	4

Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	$^{39}Ar_K$ (x 10^{-16} mol)	K/Ca	Cl/K (x 10^{-3})	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	±2s (ka)
E87062b (L#9878), 63.24 mg, J=0.0000833±0.10%, D=1.00958±0.001523, NM-99 irradiation										
6	11.64	0.3764	38.72	154.6	1.4	0.51	1.7	30.0	30	22
9	1.358	0.3502	3.684	242.1	1.5	0.17	20.3	76.9	41	3
12***	1.311	0.3810	3.107	27.58	1.3	0.52	30.9	82.3	60	12
15***	0.5804	0.0823	0.5063	12.53	6.2	0.27	74.2	84.7	62	25
25***	0.7049	0.2813	1.079	29.59	1.8	0.65	56.3	90.4	58	11
45***	0.5723	0.3368	0.6407	33.78	1.5	0.74	70.2	97.0	58	10
45***	1.506	0.3414	2.702	15.56	1.5	0.71	47.9	100.0	107	17
total gas age			n=7	515.7	1.6				43	11
plateau	MSWD = 0.23		n=2	396.7	1.4			76.9	40	5
E87085 (L#9874), 196.19 mg, J=0.000083±0.10%, D=1.00754±0.001523, NM-99 irradiation										
1.0**	248.9	0.9152	843.9	18.4	0.56	1.1	-0.2	1.3	-64	474
1.5**	19.57	0.5153	65.07	61.3	0.99	0.52	1.8	5.6	53	38
2.0	4.852	0.4095	16.34	106.1	1.2	0.32	0.6	13.1	4	11
2.5	2.197	0.3705	7.112	125.6	1.4	0.41	4.6	22.0	15	6
3.0	1.595	0.3752	5.204	128.5	1.4	0.37	3.9	31.0	9	5
4.5	1.283	0.3995	4.089	292.2	1.3	0.21	6.4	51.7	12	3
6.0	1.235	0.3838	3.880	251.7	1.3	0.24	7.7	69.4	14	3
7**	1.375	0.3960	4.172	152.7	1.3	0.59	11.0	80.2	22	4
8**	1.474	0.3758	4.437	102.4	1.4	0.59	11.5	87.4	25	5
9.0**	1.414	0.3705	4.173	61.0	1.4	0.44	13.3	91.7	28	6
10.0**	1.361	0.3403	3.970	36.2	1.5	0.61	14.2	94.3	28	8
12.0**	1.704	0.3608	4.918	25.6	1.4	0.69	15.1	96.1	38	11
15.0**	1.984	0.3740	5.649	15.6	1.4	0.98	16.3	97.2	48	20
25.0**	3.663	0.4931	11.27	10.9	1.0	1.3	9.5	97.9	52	30
45.0**	4.575	0.5156	13.02	29.1	0.99	0.98	16.3	100.0	111	16
total gas age			n=15	1417.2	1.3				19	13
plateau	MSWD = 1.40		n=5	904.0	1.3			63.8	12	3

Isotopic ratios corrected for blank, radioactive decay, and mass discrimination, not corrected for interferring reactions.
Individual analyses show analytical error only; mean age errors also include error in J and irradiation parameters.
Analyses in italics are excluded excluded from mean age calculations.
Correction factors:
(39Ar/37Ar)Ca = 0.00070±0.00005
(36Ar/37Ar)Ca = 0.00026±0.00002
(38Ar/39Ar)K = 0.0119
(40Ar/39Ar)K = 0.0250±0.0050
*Not within 95% tolerance, Mahon (1996) error calculation method used
**Step not used to calculate plateau age.

Isochron Plots

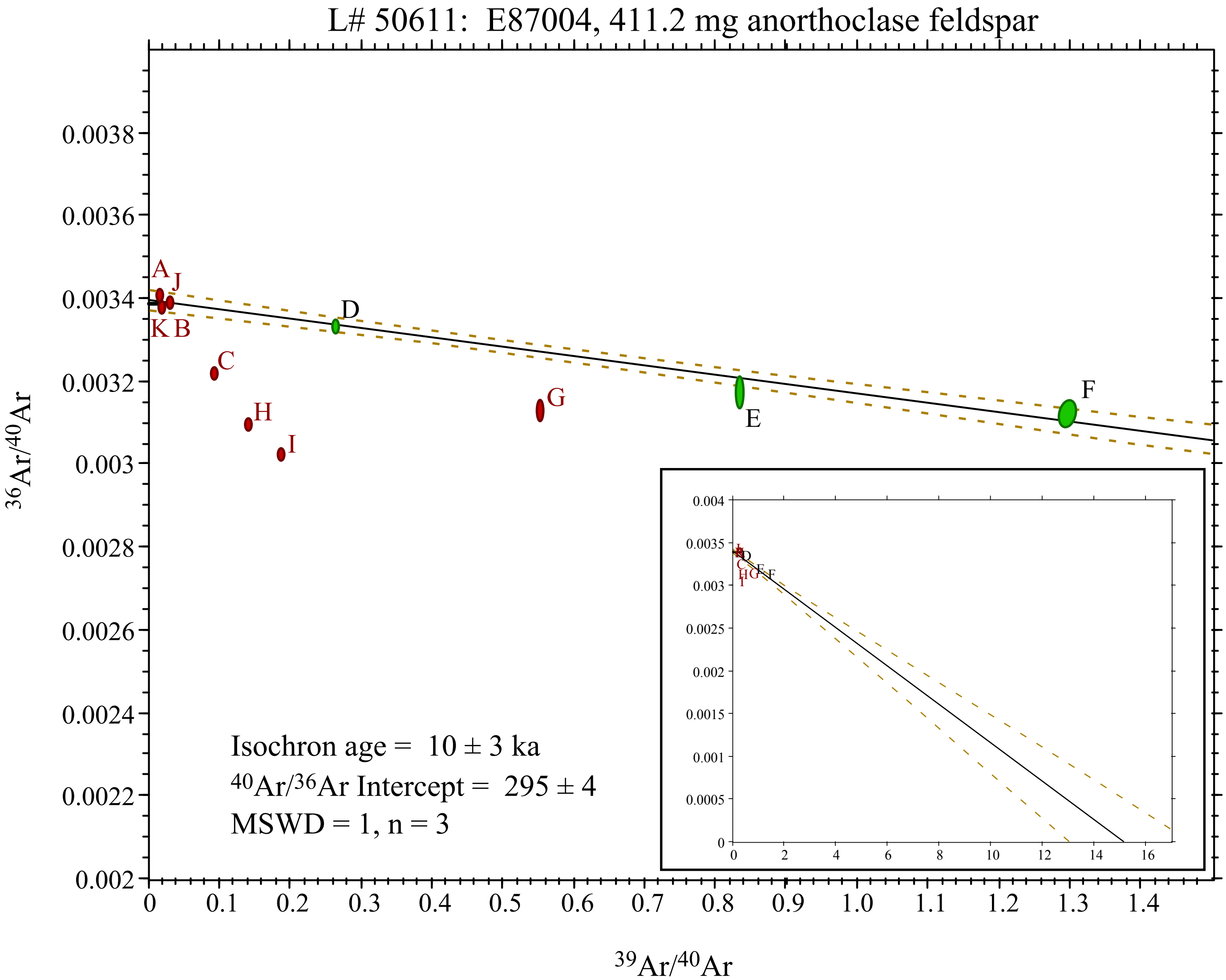
from

$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Summit Flows, Tephra and Caldera Collapse

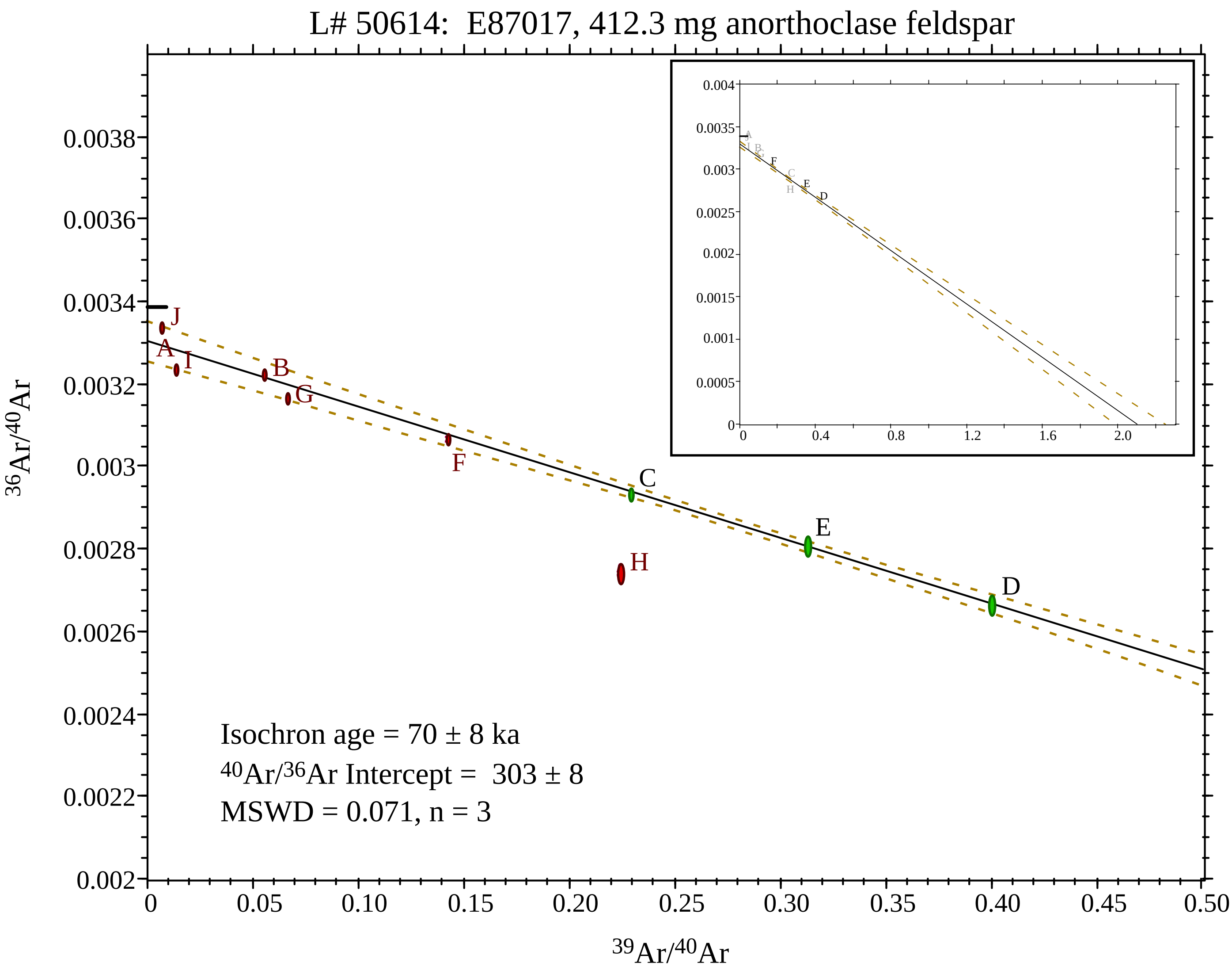
by

Christoper J. Harpel, Philip R. Kyle, Richard P. Esser, William C. McIntosh and Dave A. Caldwell

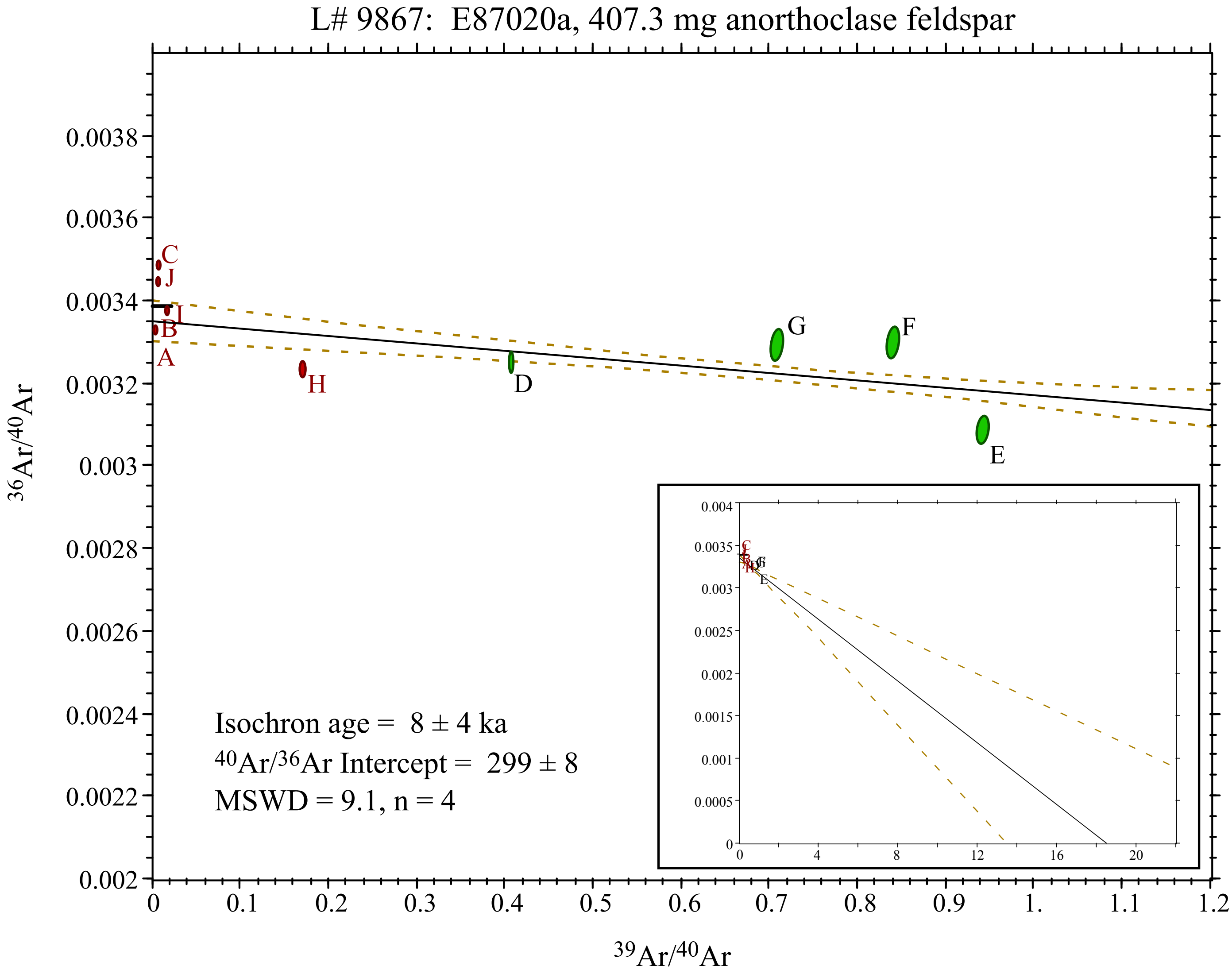
Isochron Plots (Sample Number)



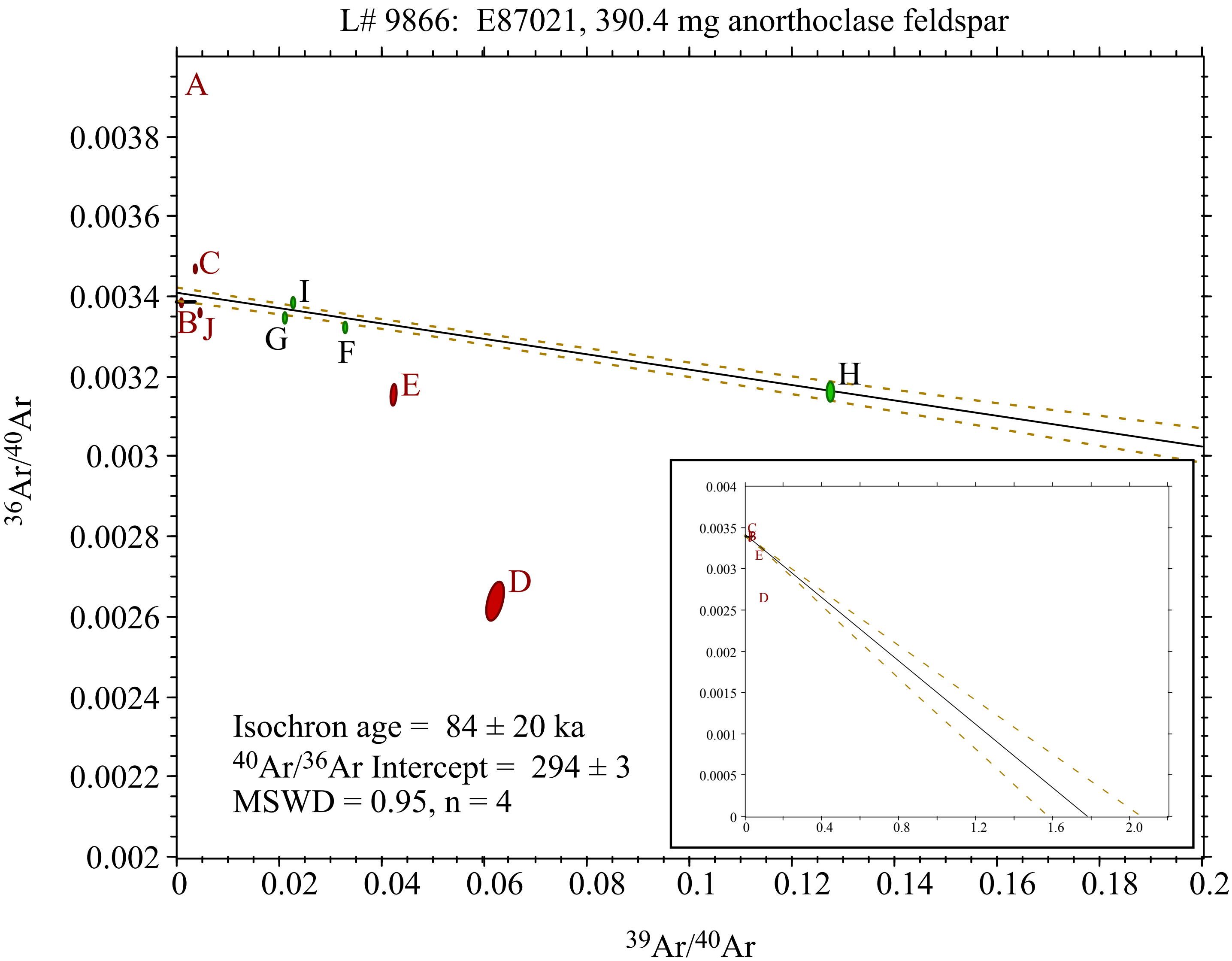
Inverse isochron diagram for the E87004 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (9±2 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



Inverse isochron diagram for the E87017 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and ^{40}Ar/^{36}Ar intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (76±4 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.

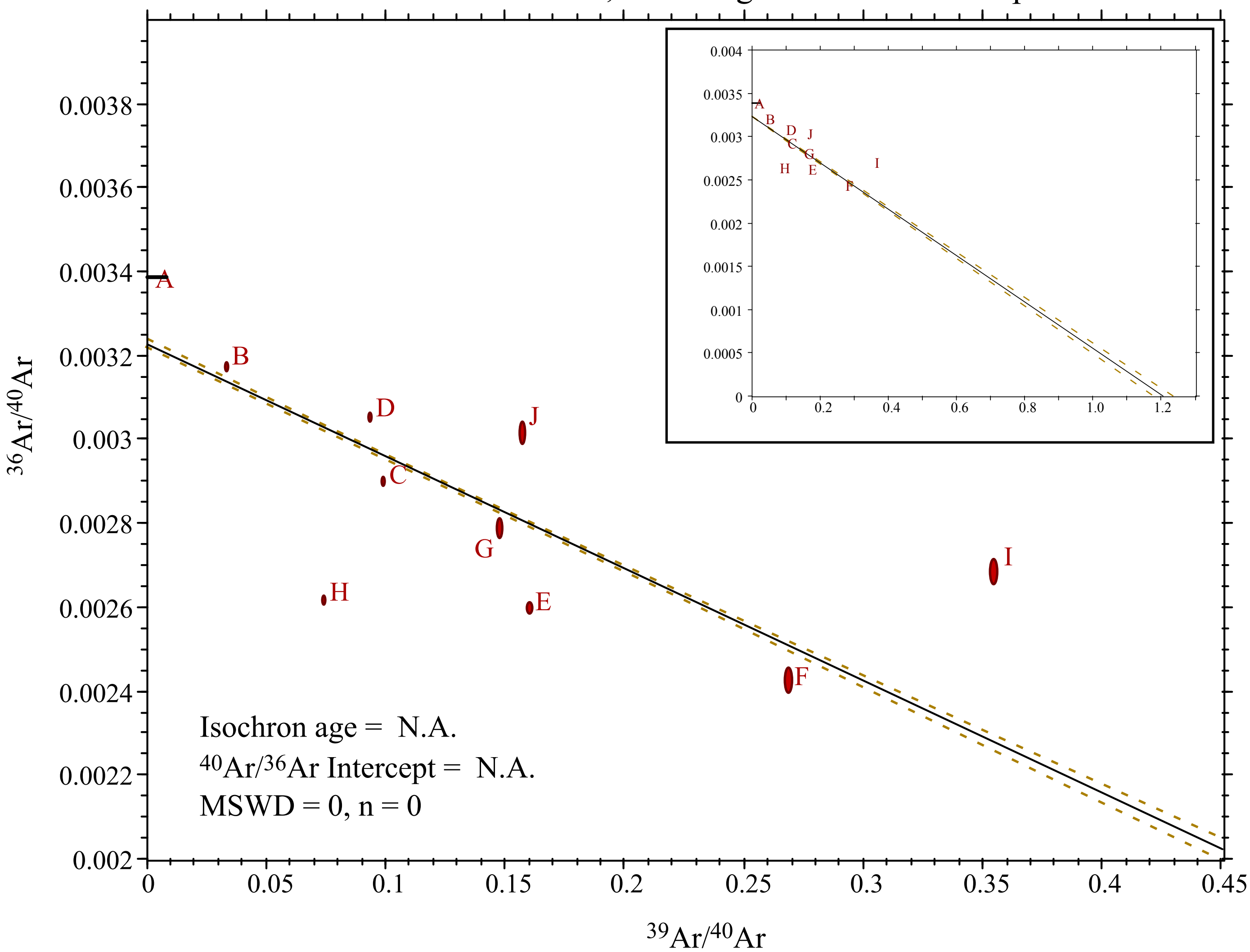


Inverse isochron diagram for the E87020a anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (10±6 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.

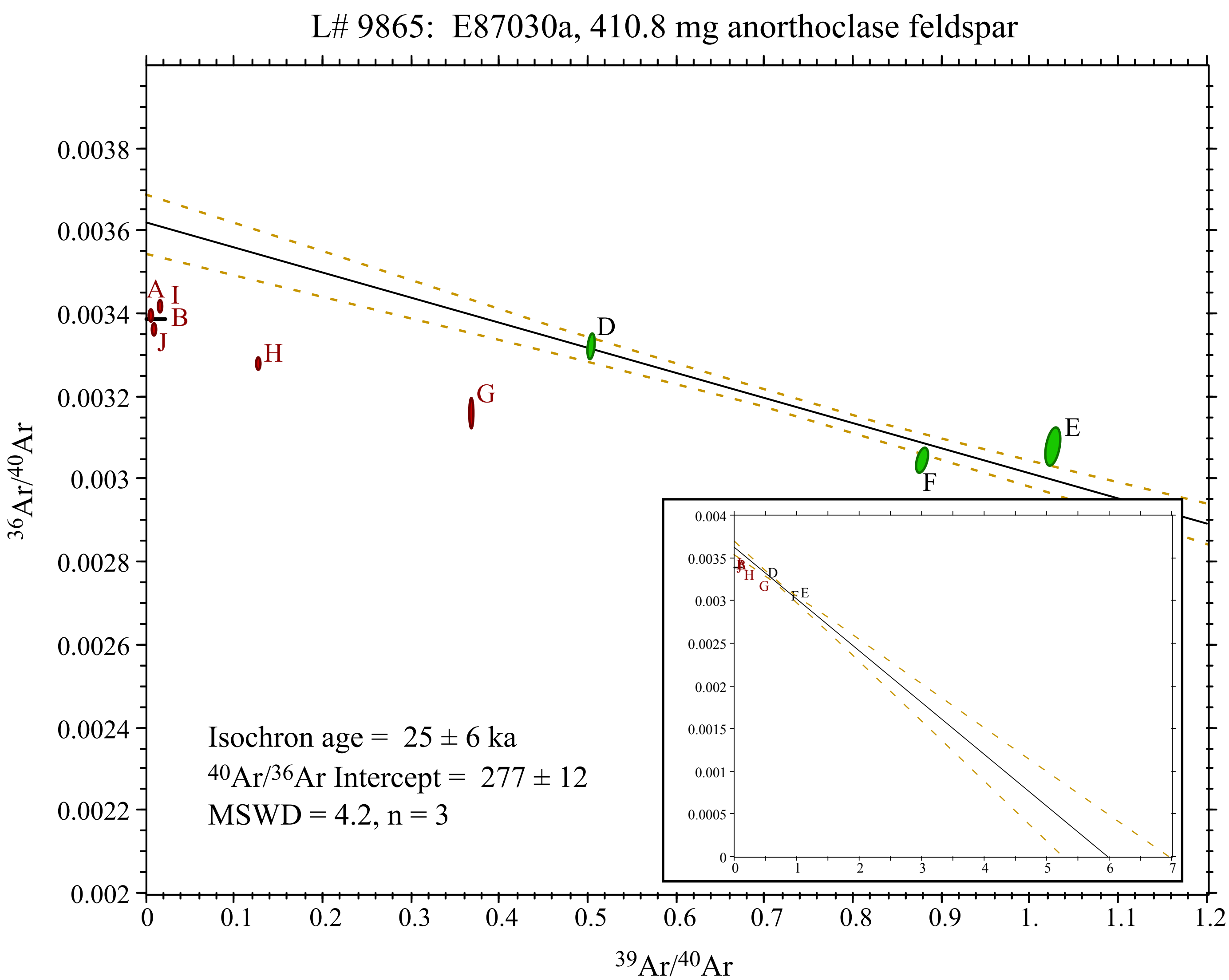


Inverse isochron diagram for the E87021 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (73±23 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.

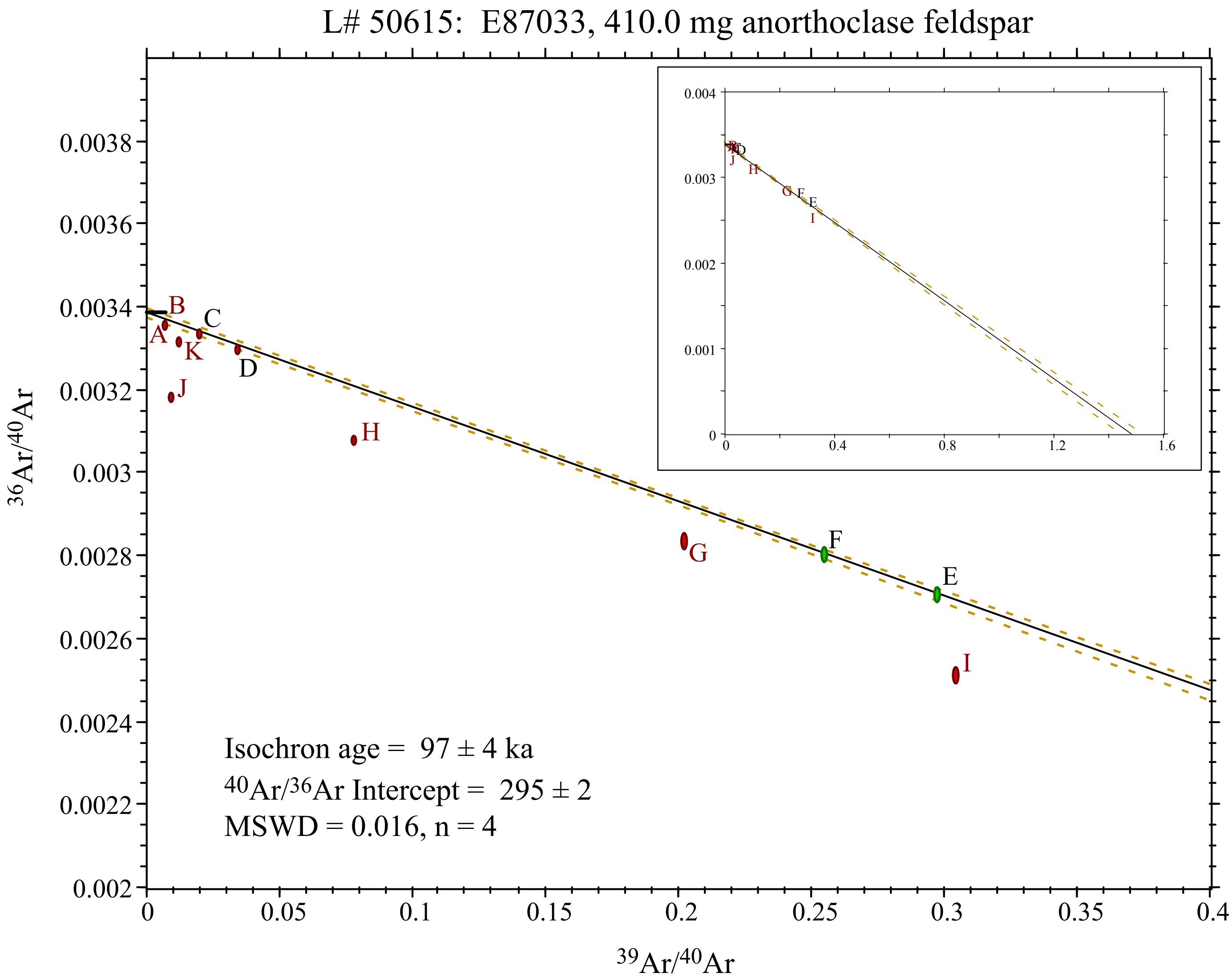
L# 50617: E87026, 399.8 mg anorthoclase feldspar



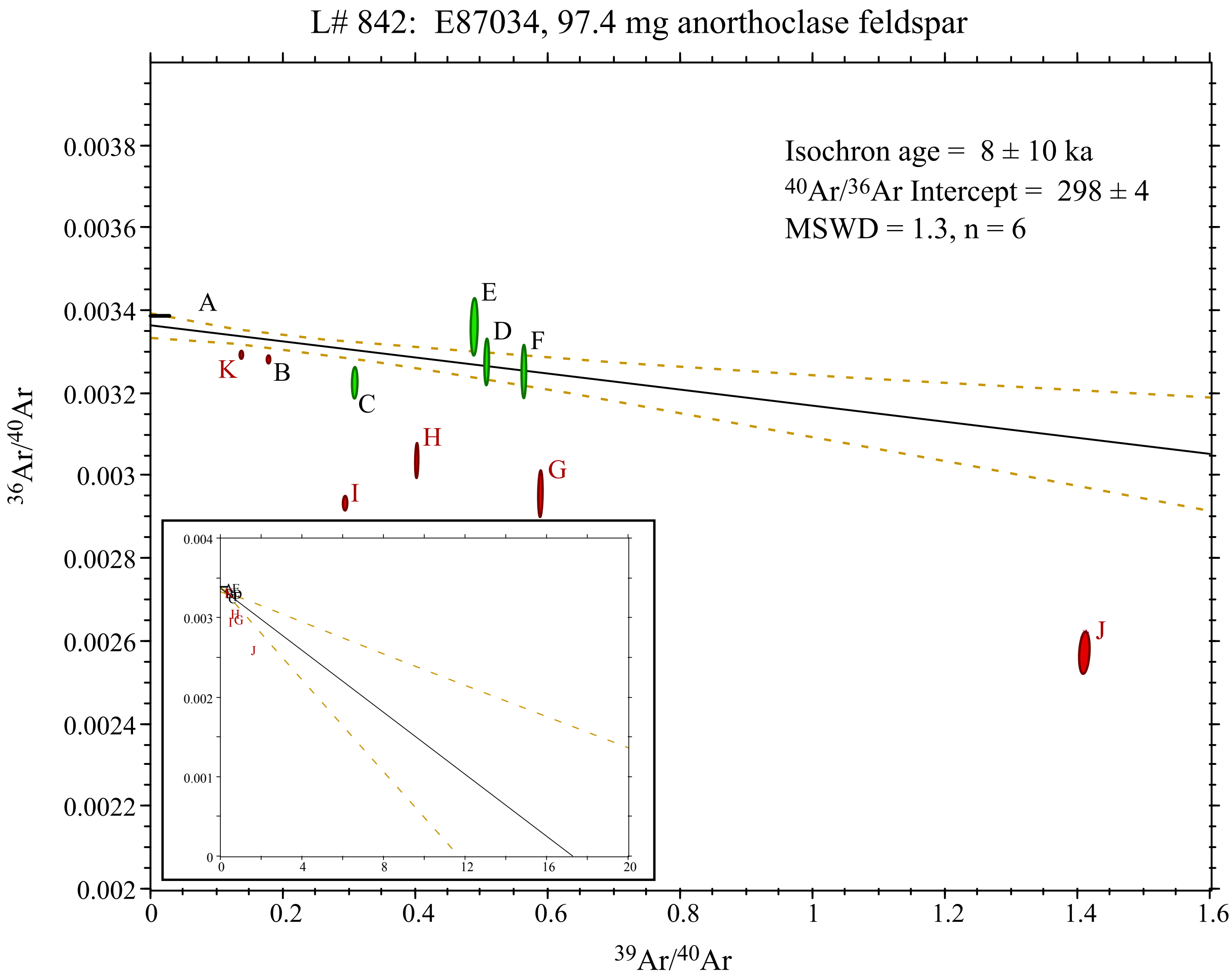
Inverse isochron diagram for the E87026 anorthoclase feldspar sample. This sample yielded no spectrum weighted mean age or isochron age.



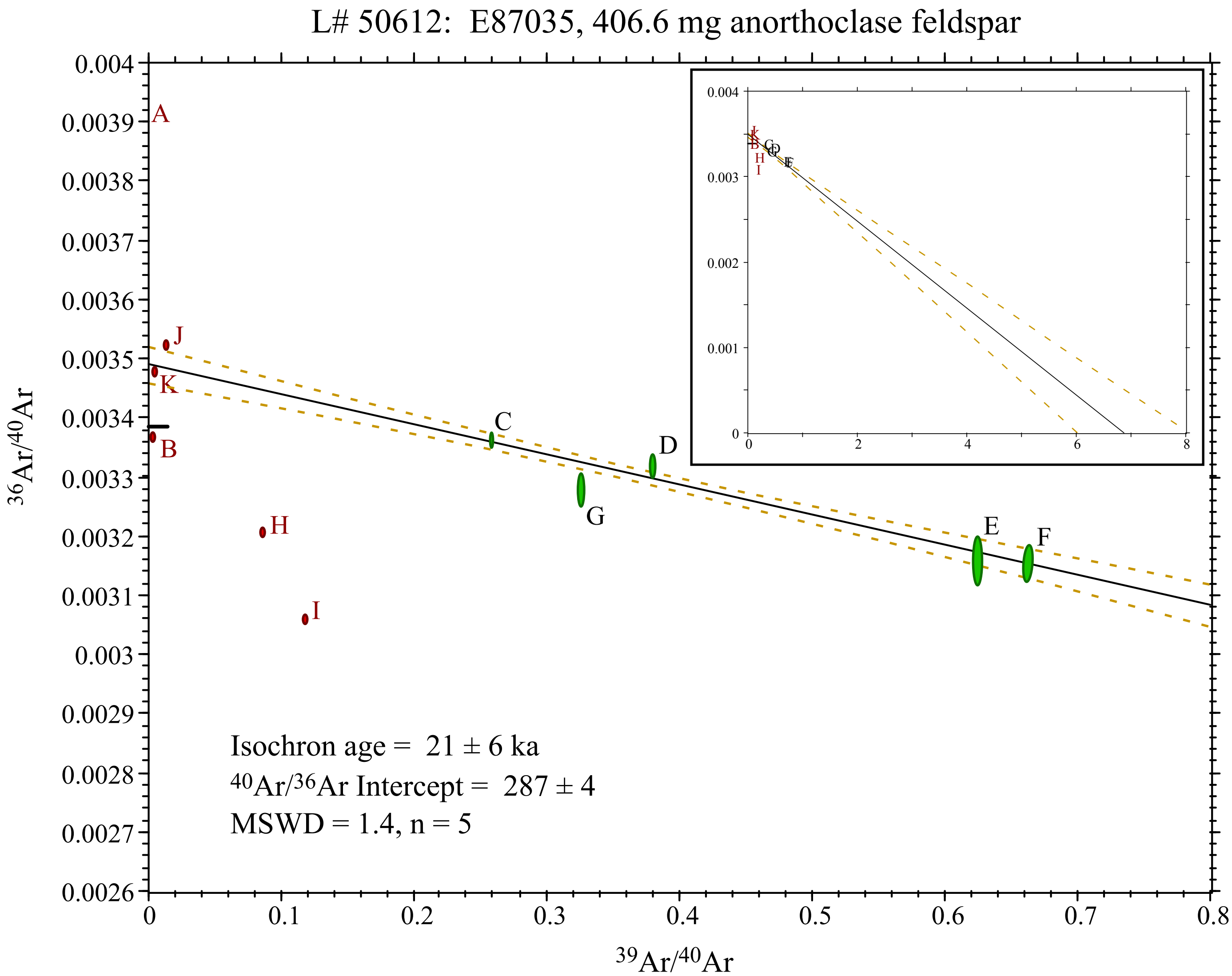
Inverse isochron diagram for the E87030a anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (14±6 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



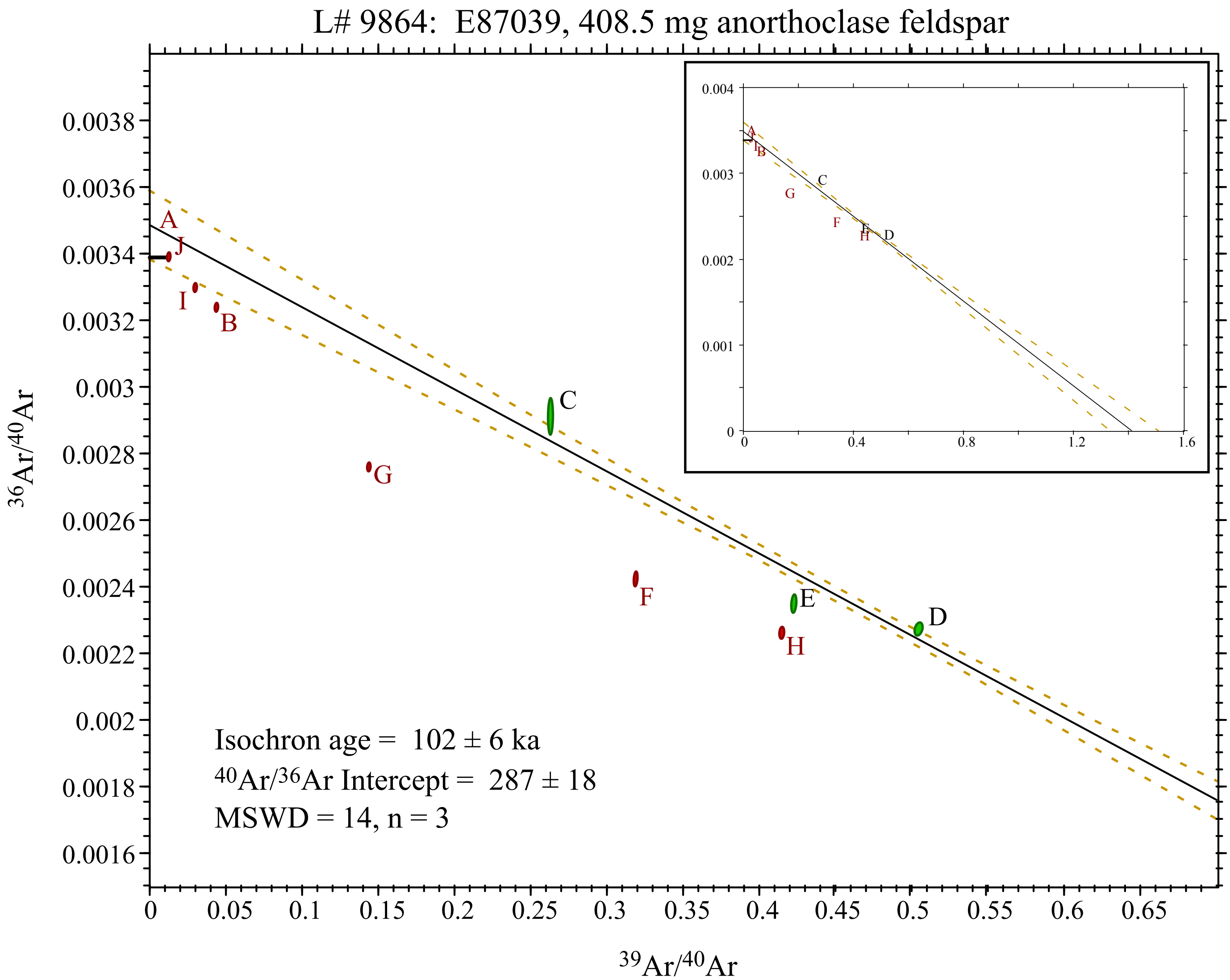
Inverse isochron diagram for the E87033 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (91±4 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



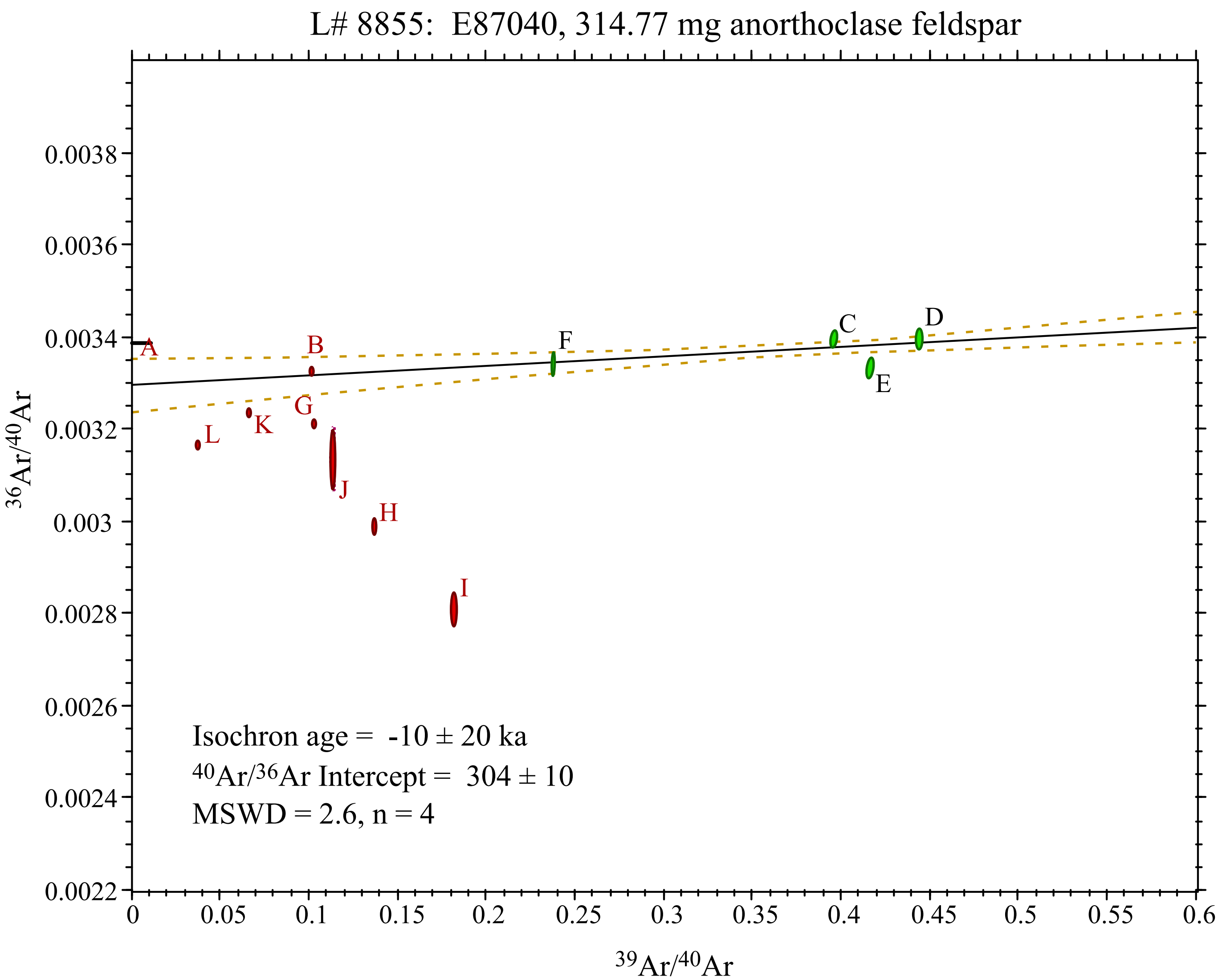
Inverse isochron diagram for the E87034 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (11±8 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



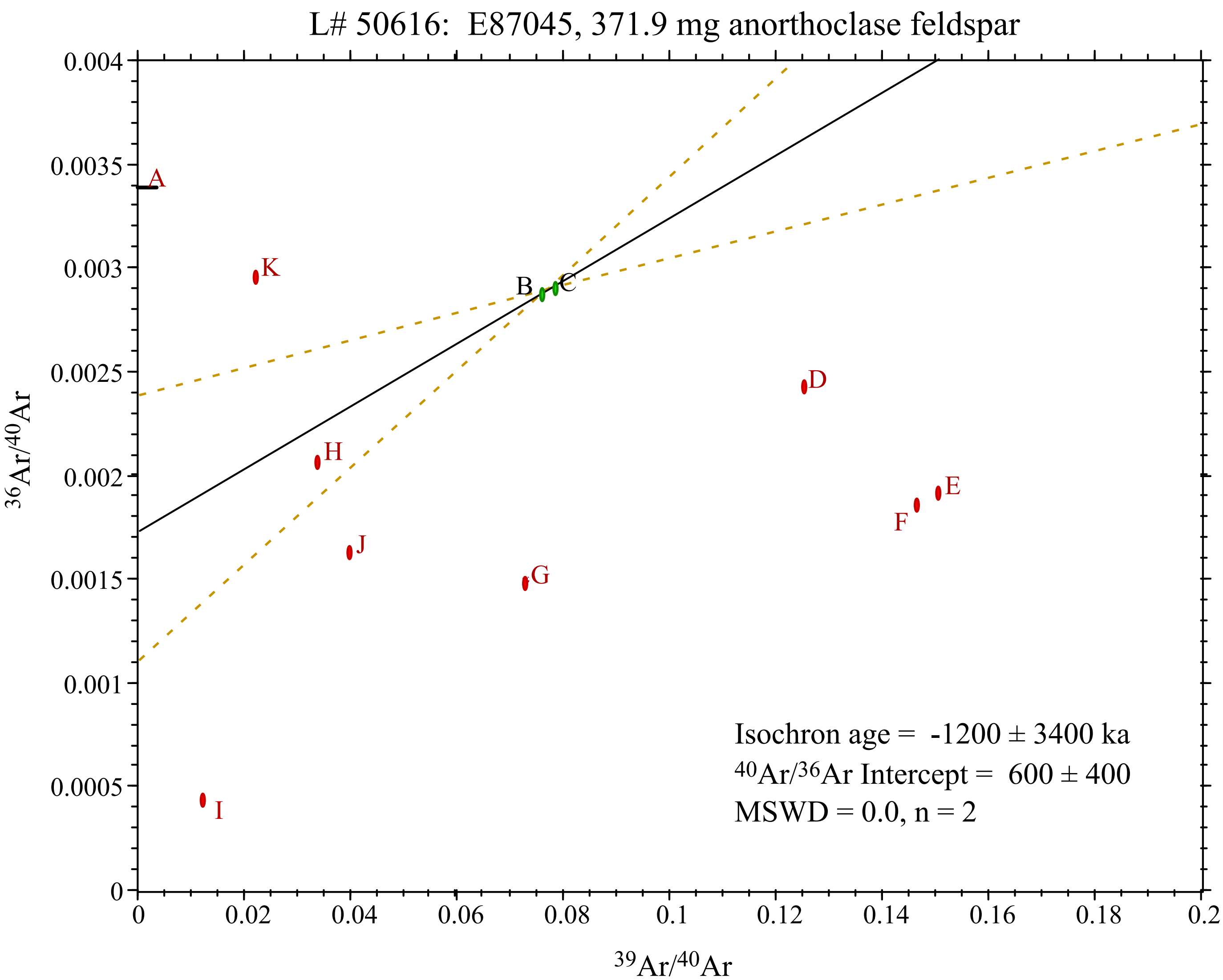
Inverse isochron diagram for the E87035 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (10±5 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



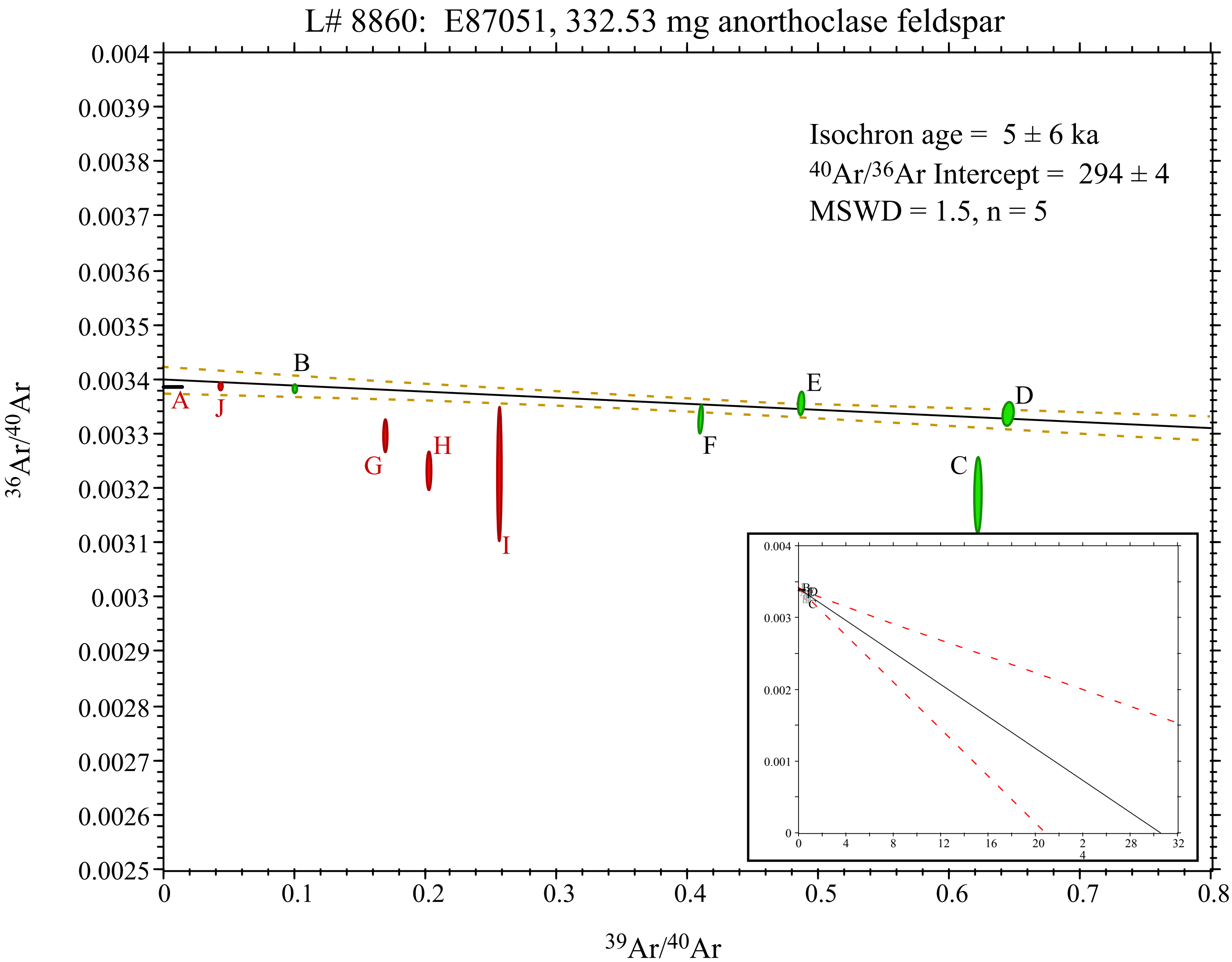
Inverse isochron diagram for the E87039 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (95±9 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



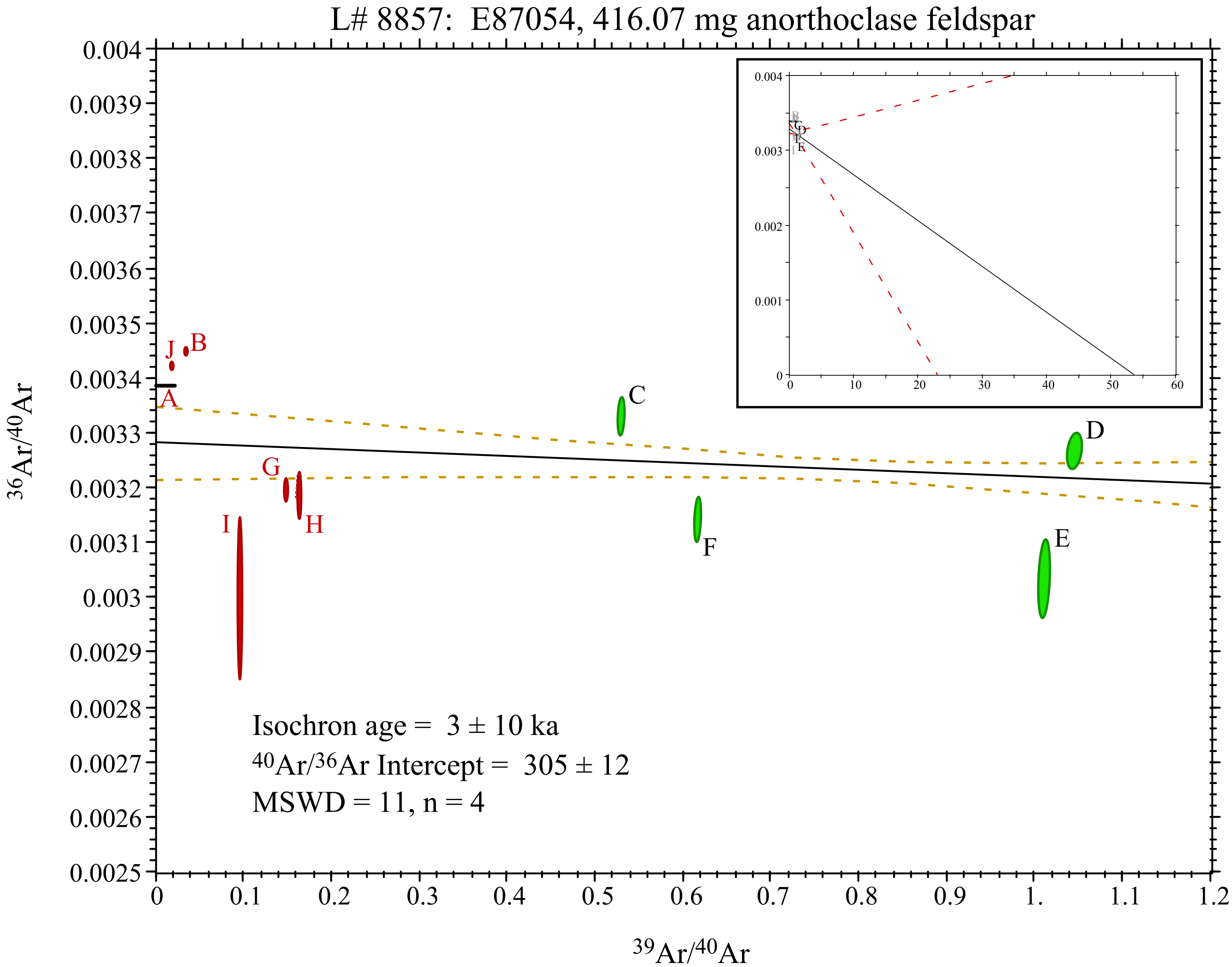
Inverse isochron diagram for the E87040 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (1±5 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



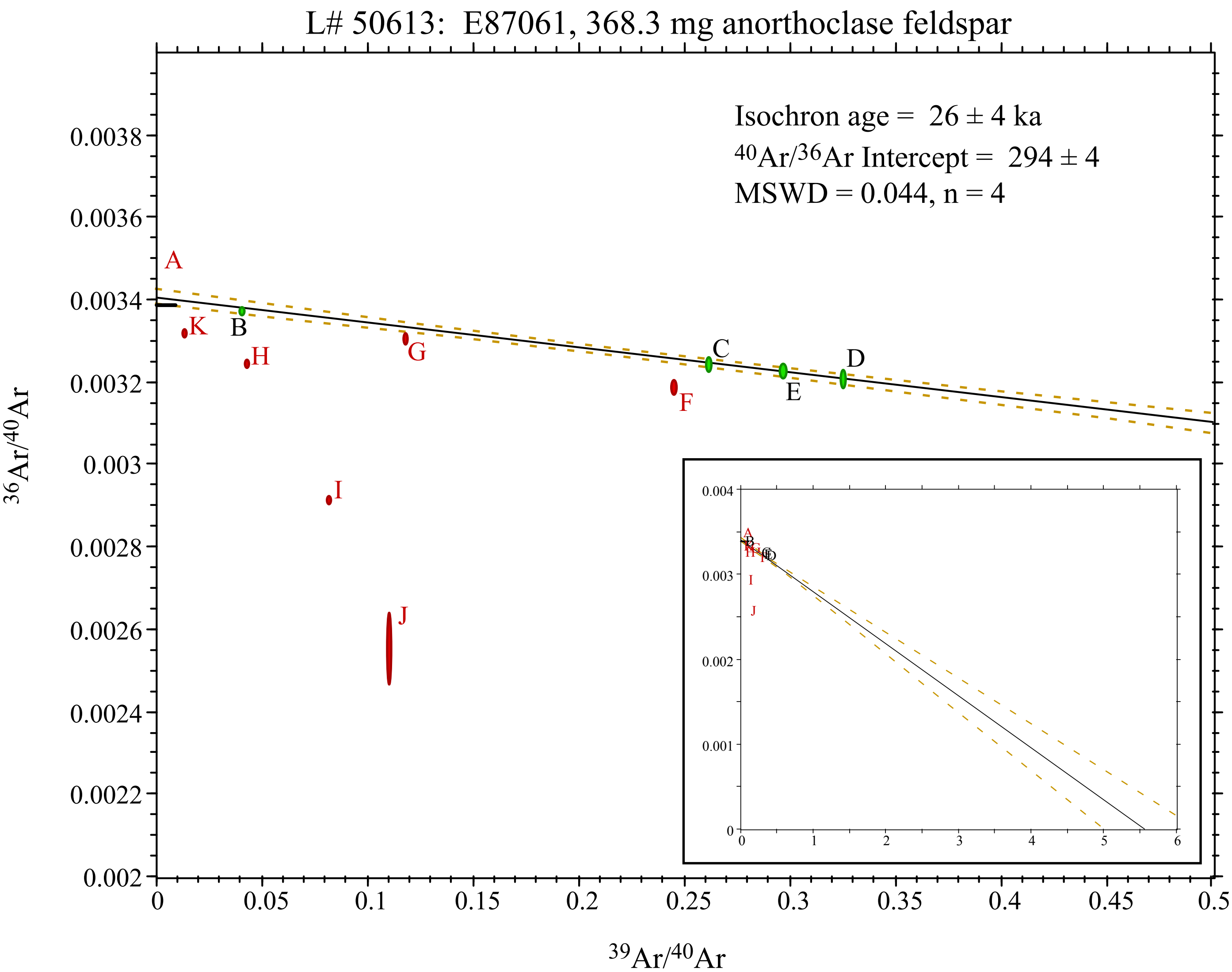
Inverse isochron diagram for the E87045 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (264±28 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



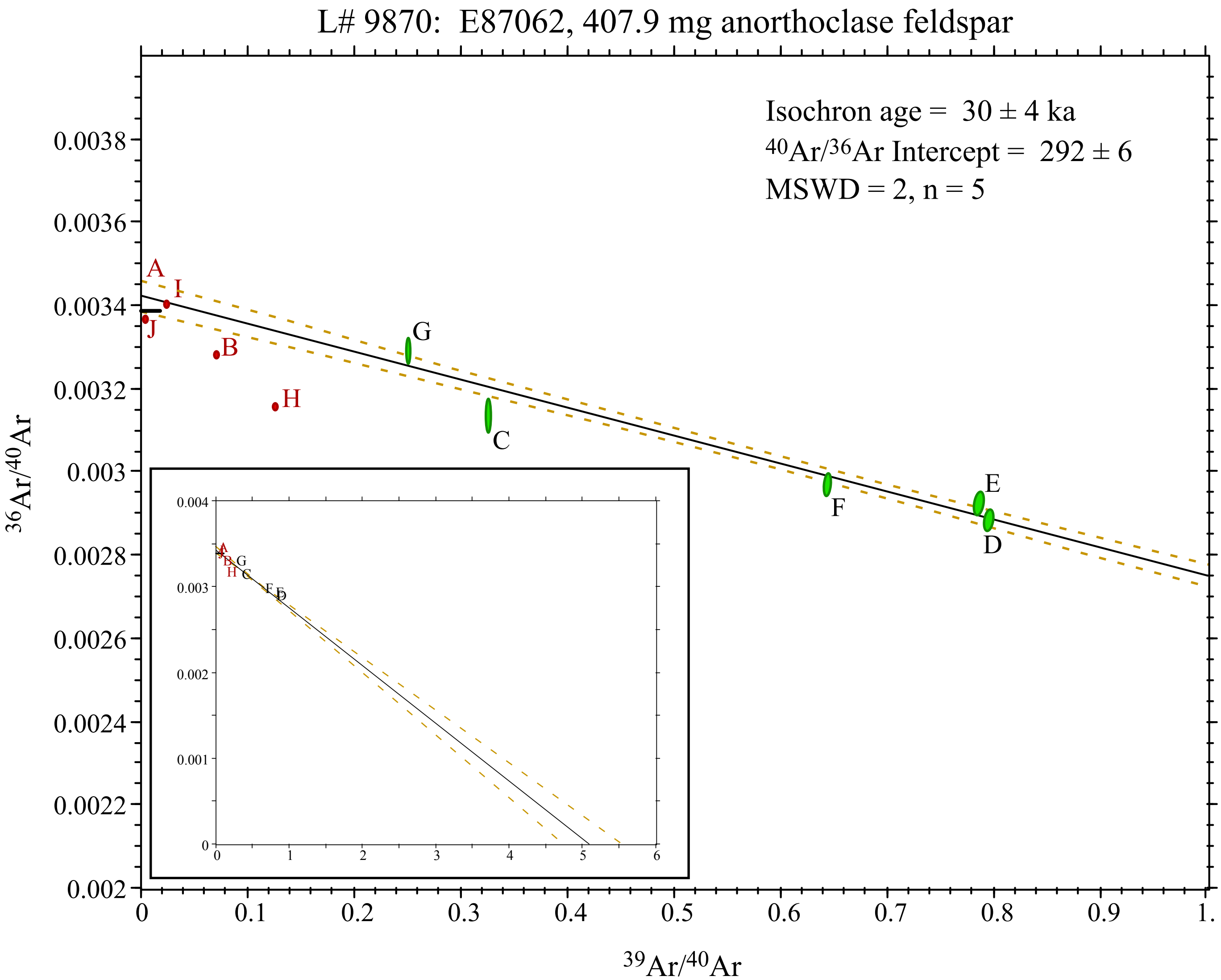
Inverse isochron diagram for the E87051 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (4±3 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



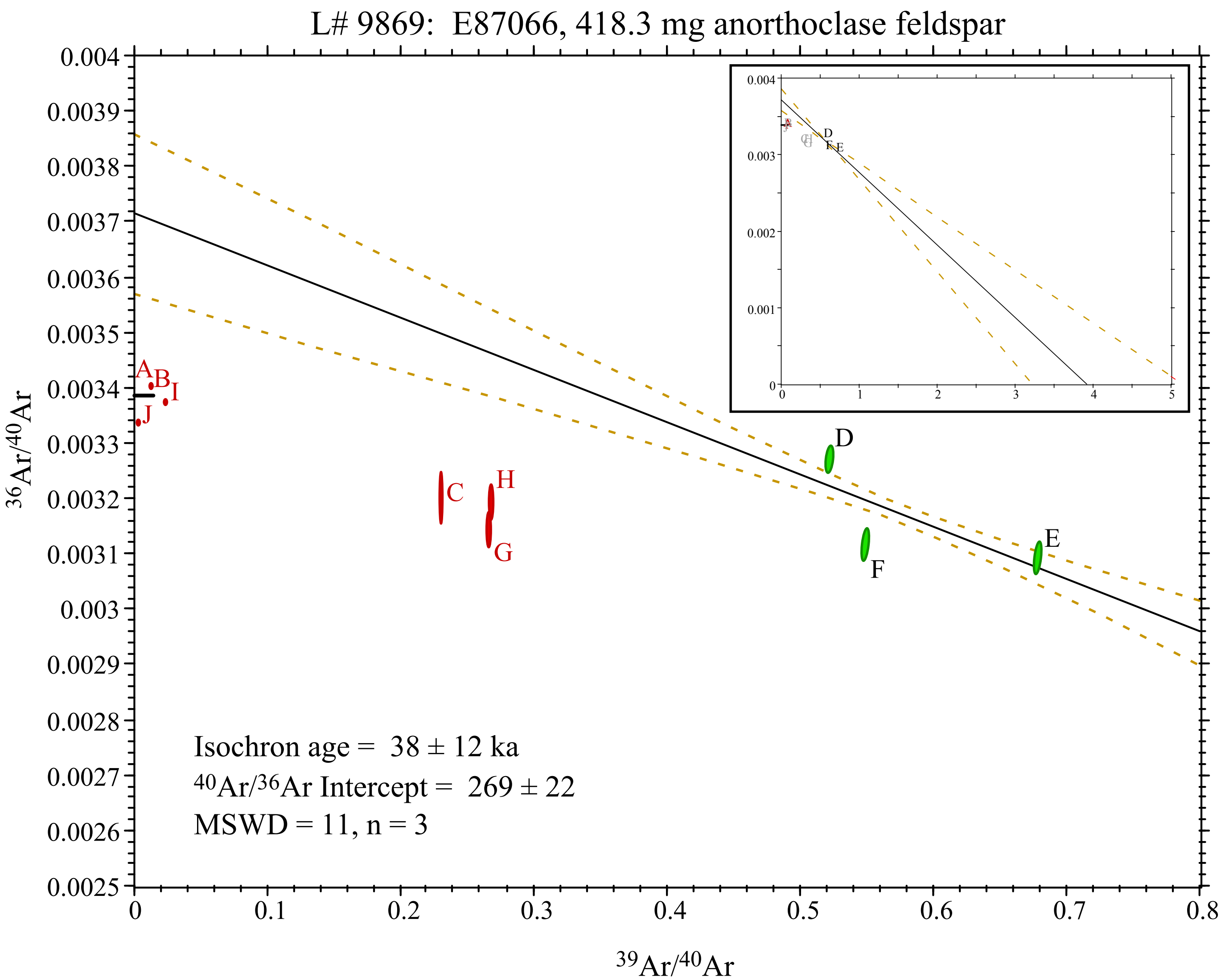
Inverse isochron diagram for the E87054 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (9±7 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



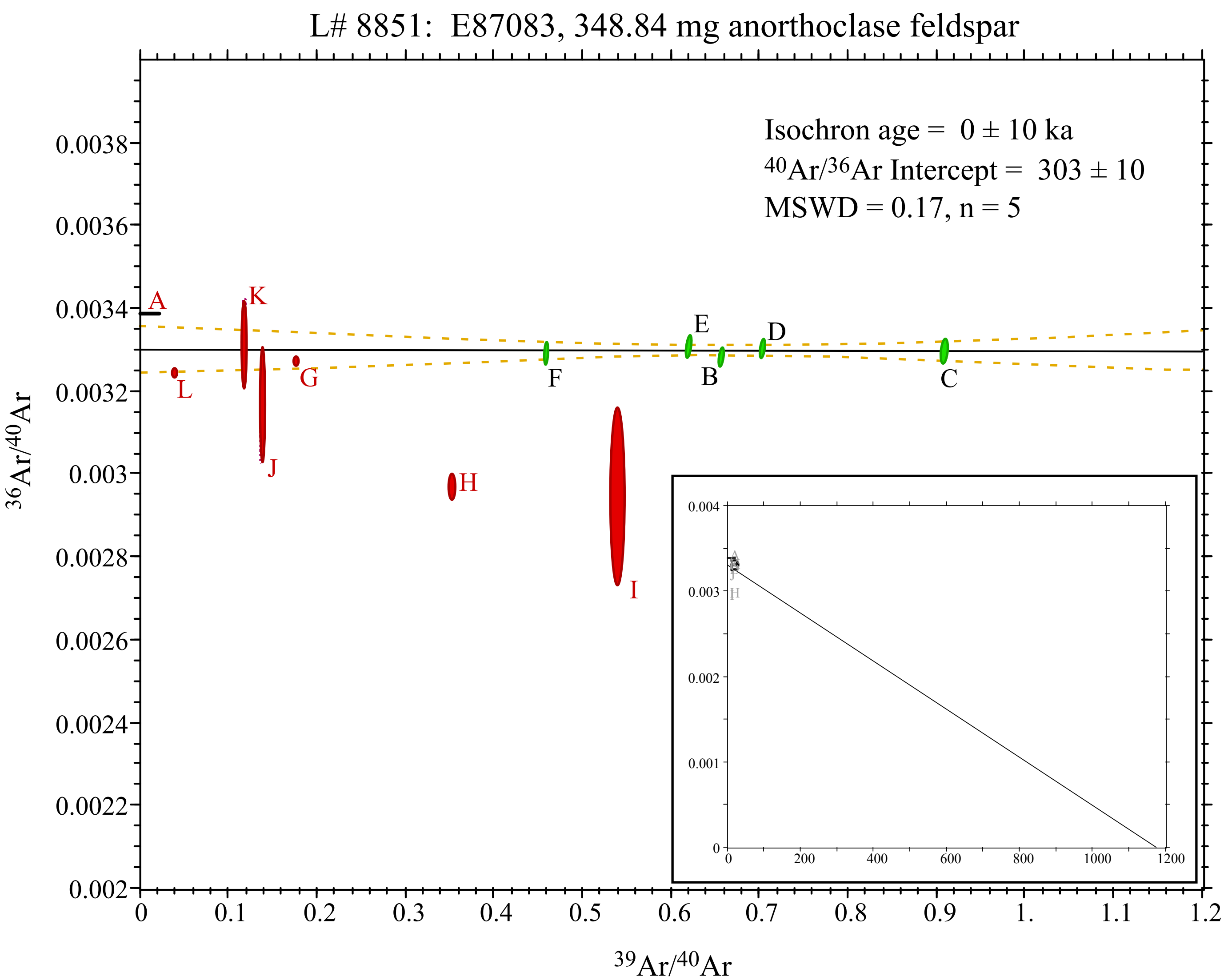
Inverse isochron diagram for the E87061 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (21±4 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



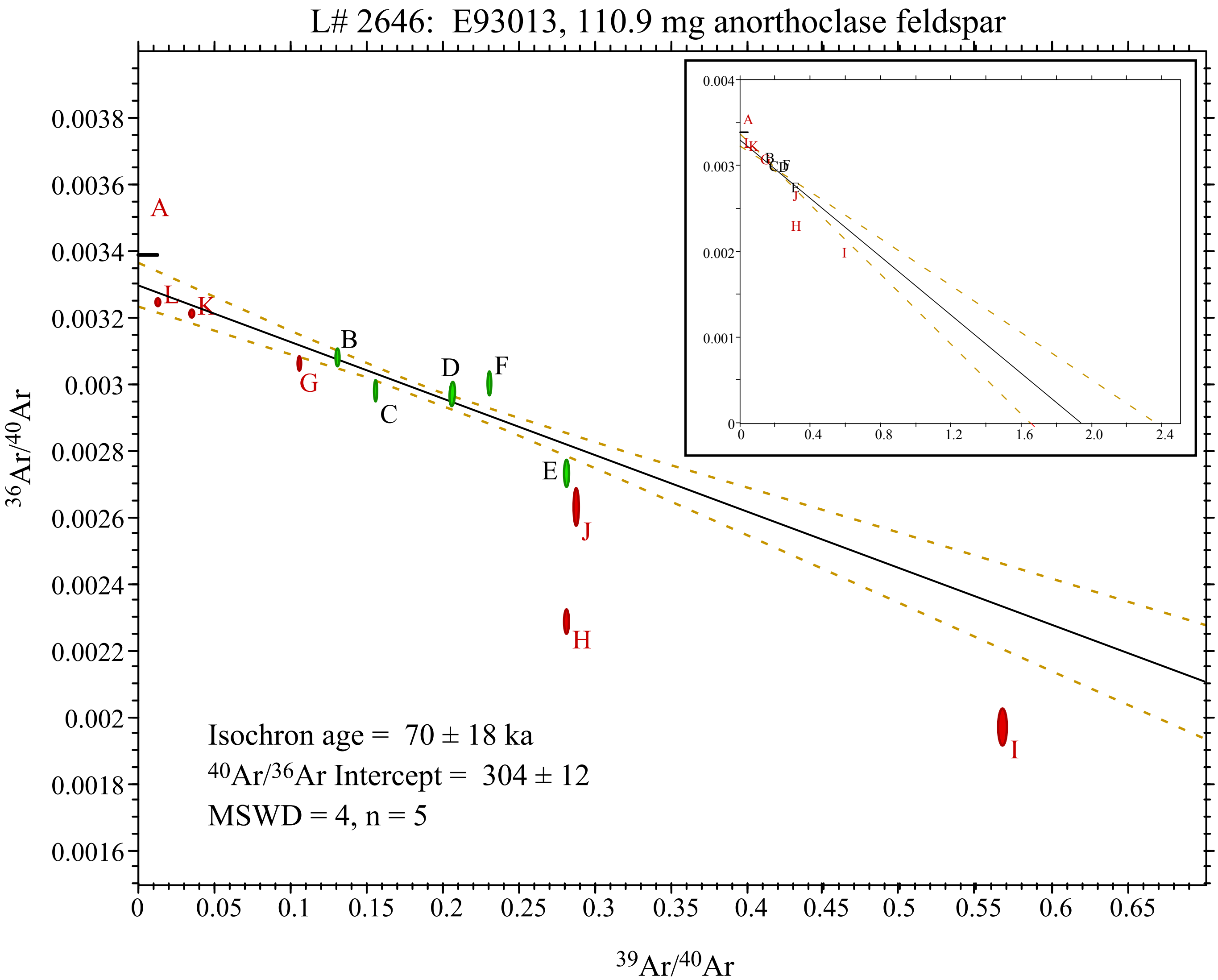
Inverse isochron diagram for the E87062 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (27±3 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



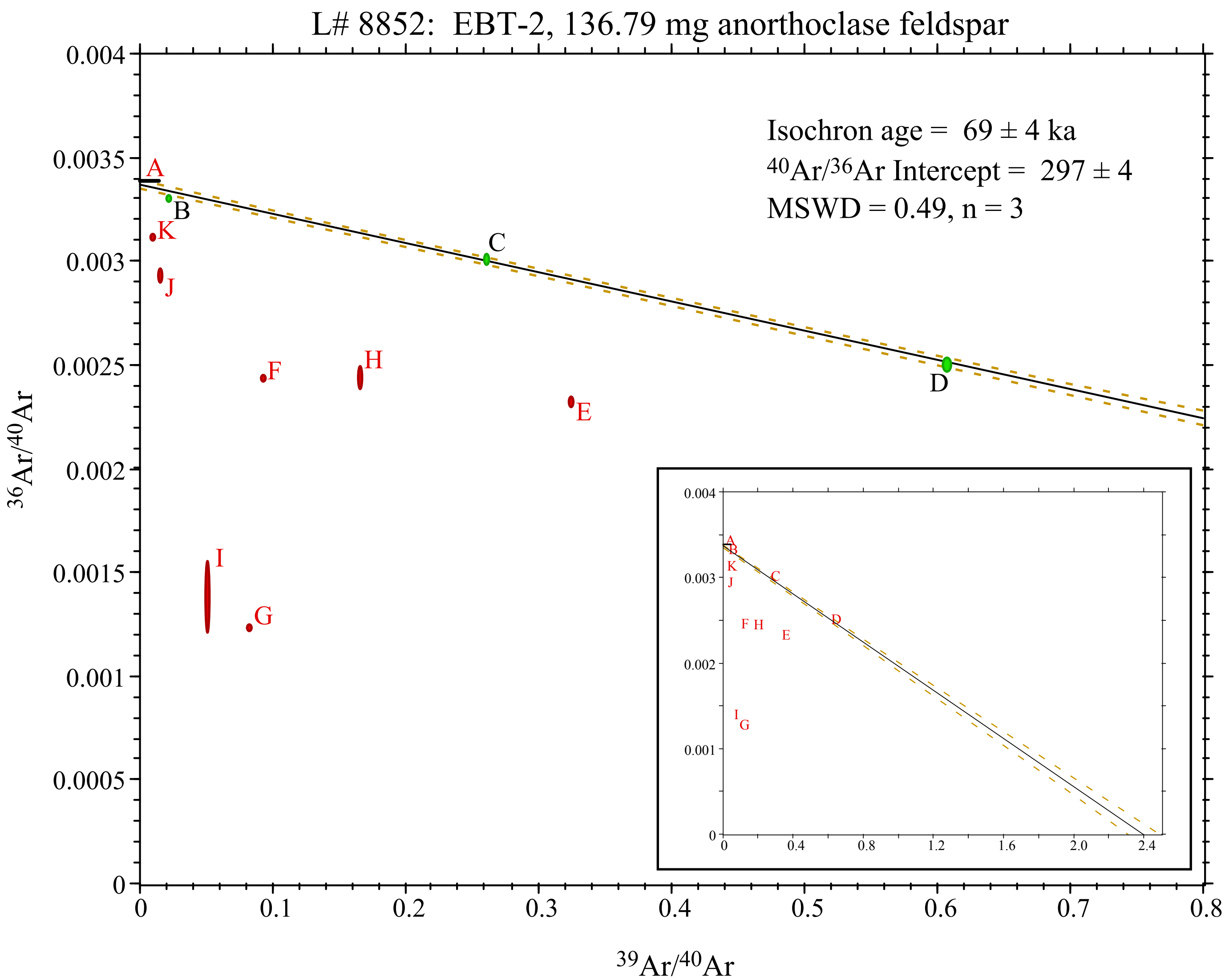
Inverse isochron diagram for the E87066 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (17±8 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



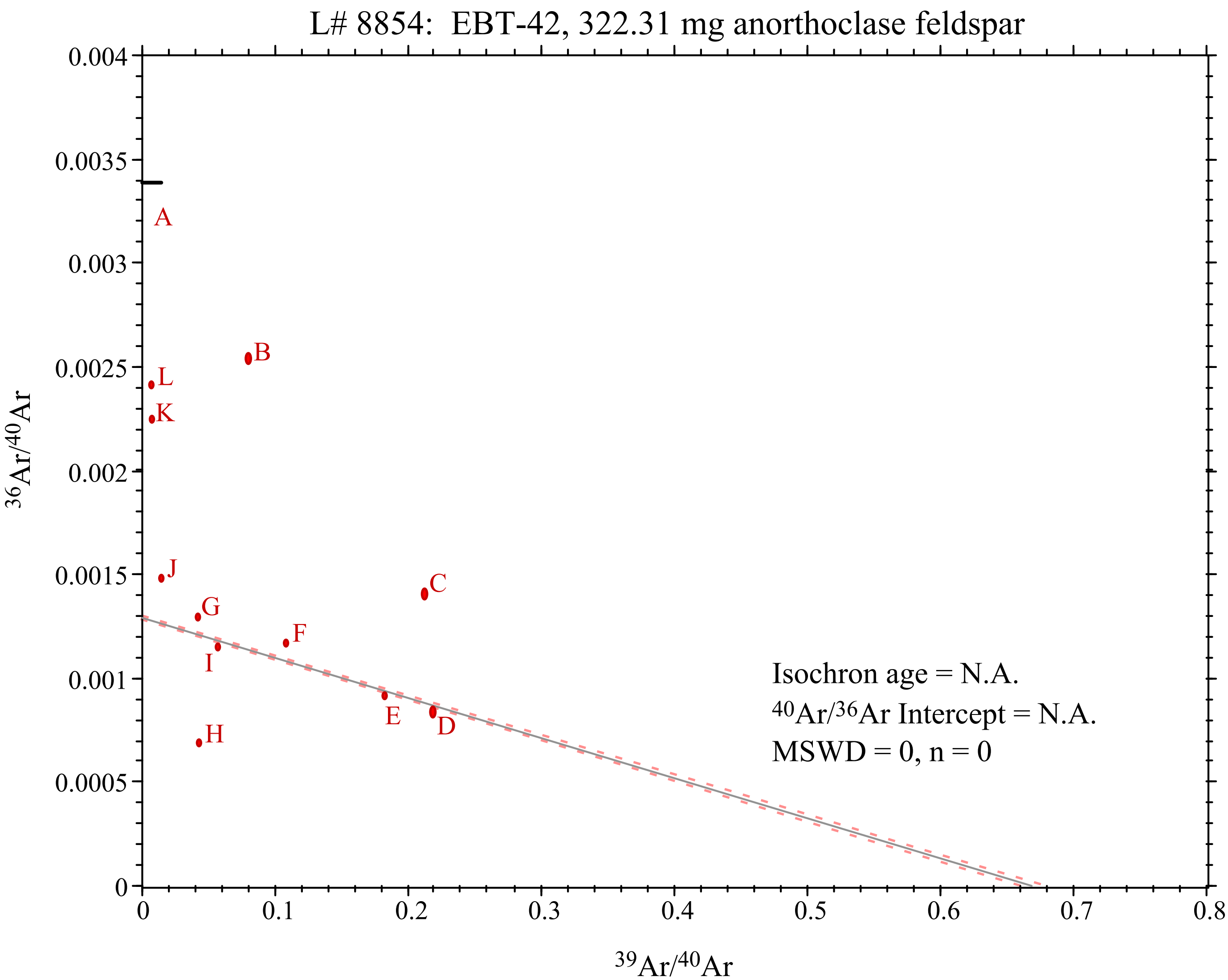
Inverse isochron diagram for the E87083 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (6±2 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



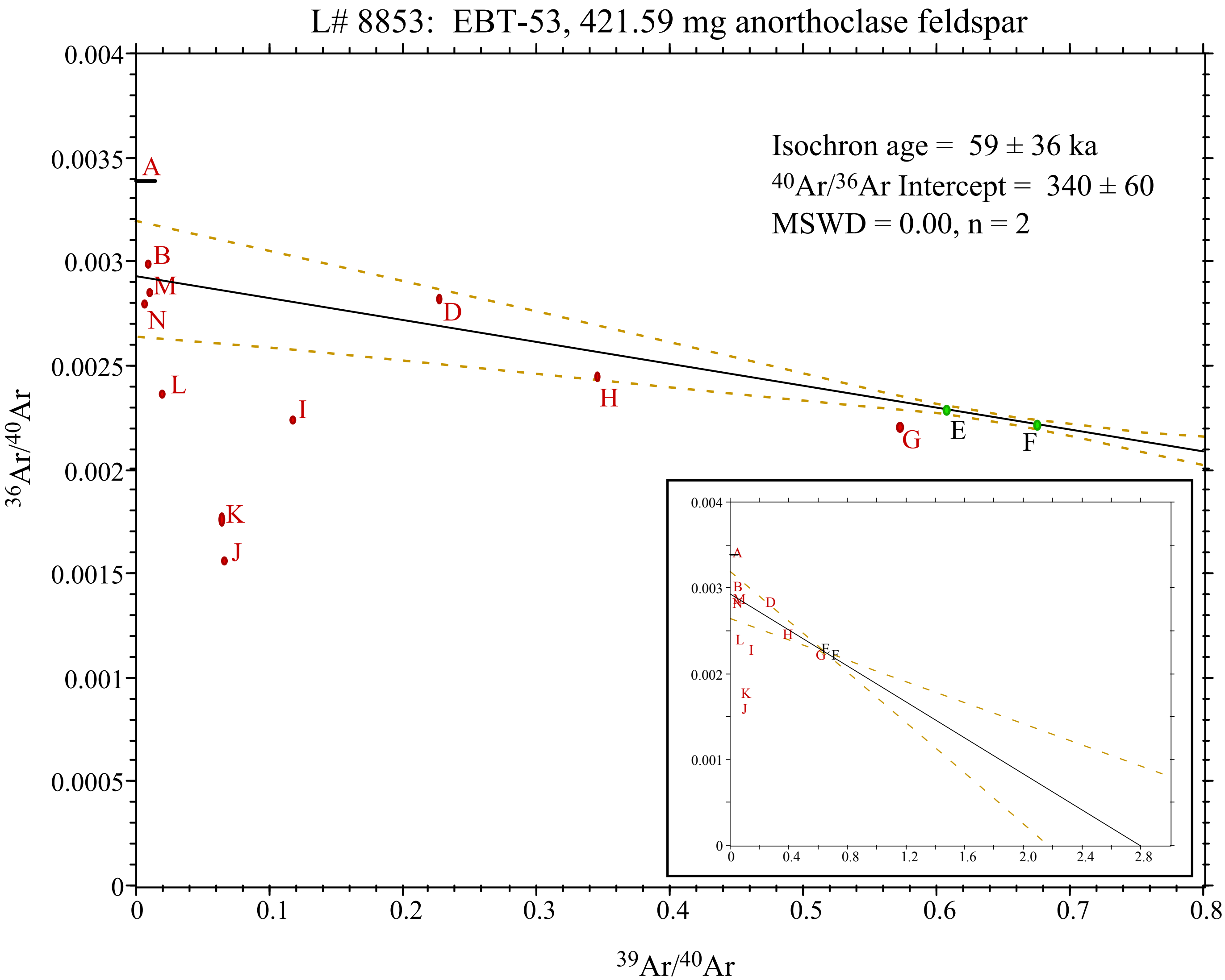
Inverse isochron diagram for the E93013 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (86±15 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



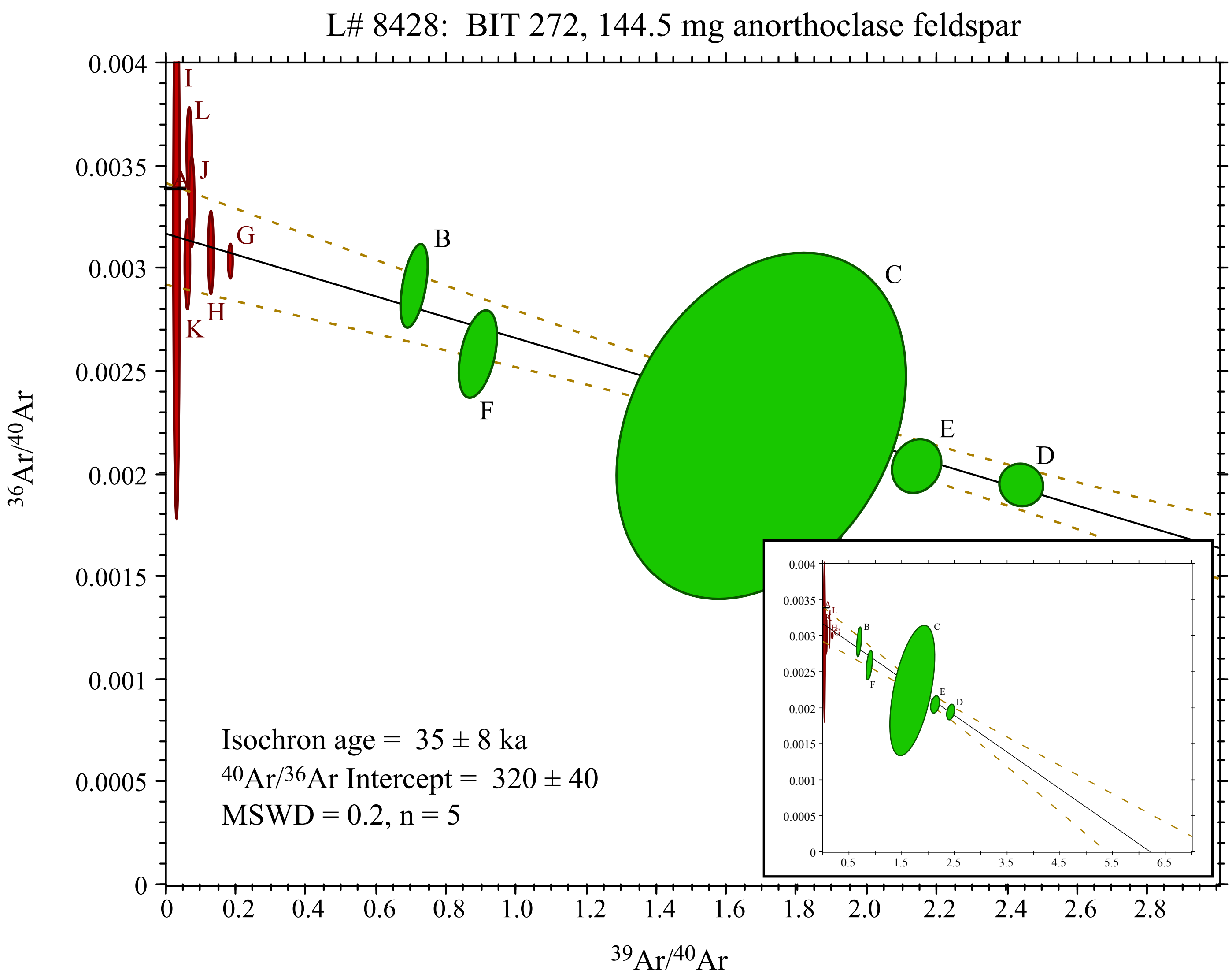
Inverse isochron diagram for the EBT-2 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (71±5 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



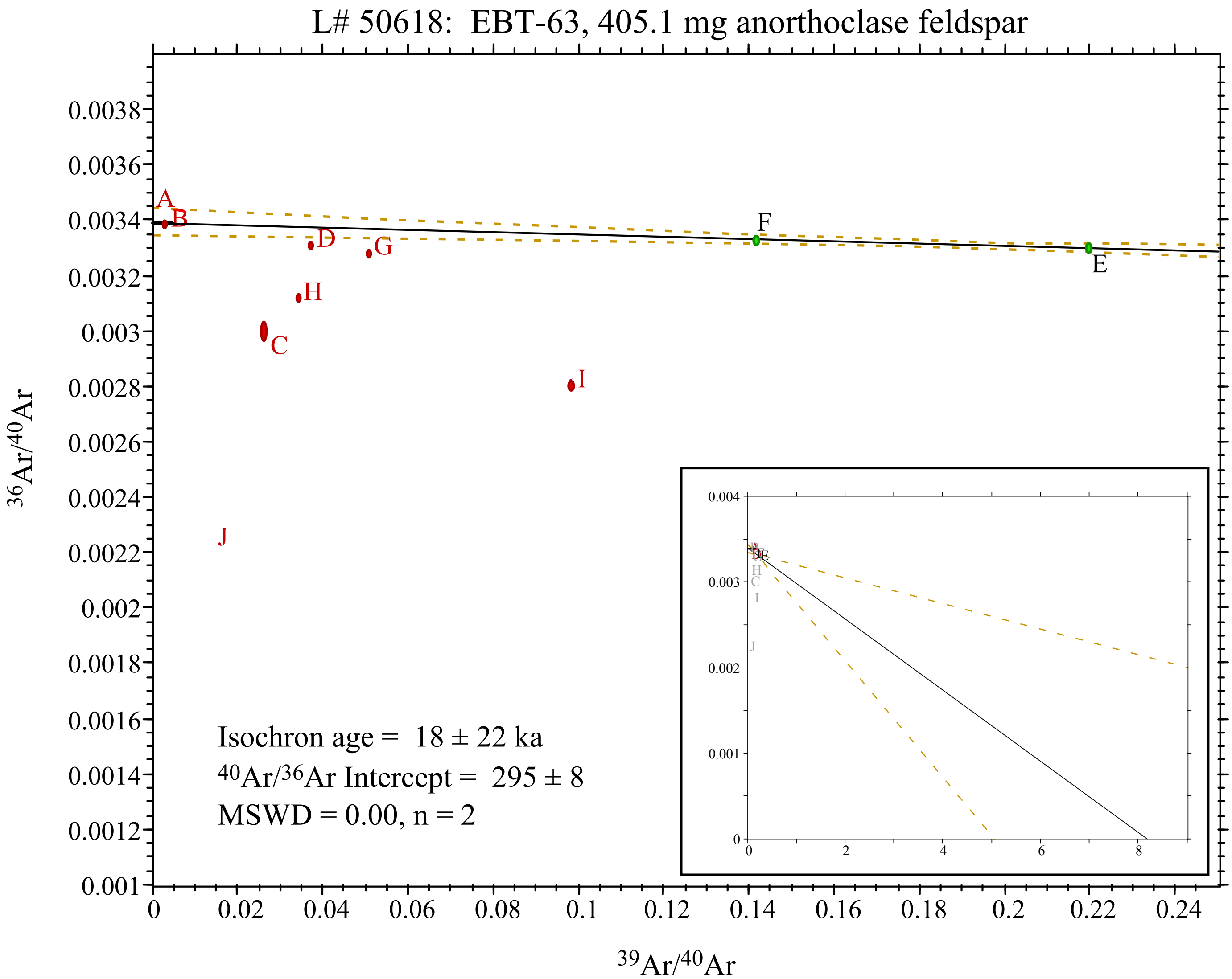
Inverse isochron diagram for the EBT-42 anorthoclase feldspar sample. This sample yielded no spectrum weighted mean age or isochron age.



Inverse isochron diagram for the EBT-53 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (86±4 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



Inverse isochron diagram for the BIT-272 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and $^{40}Ar/^{36}Ar$ intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (39±6 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.



Inverse isochron diagram for the EBT-63 anorthoclase feldspar sample. Analyses shown as green ellipses are used to determine the isochron age and ^{40}Ar/^{36}Ar intercept and are equivalent to the heating steps used to calculate the spectrum weighted mean age (15±4 ka). The red ellipses are excluded from both the isochron and age spectrum calculations. All errors are two-sigma.