

Table DR4: $^{40}\text{Ar}/^{39}\text{Ar}$ Analytical Data for K-Feldspar Samples EUT-2 and EUT-35

Step	Temp. (°C)	Time (m)	$^{36}\text{Ar}(\text{a})$ (cps)	$^{39}\text{Ar}(\text{k})$ (cps)	$^{40}\text{Ar}(\text{r})$ (cps)	Age (Ma)	$\pm 2\sigma$ (Ma)	$^{40}\text{Ar}^*$ (%)	$^{39}\text{Ar}(\text{k})$ (%)
6EUT02 K-feldspar (10.60 mg)			J = 0.0020397 0.0000102 monitor GA1550 biotite (98.79 0.543 Ma)						
1	400	15	1706	2061	32397	56.95	20.06	6.04	0.09
2	430	15	601	1261	30129	85.85	14.52	14.50	0.06
3	460	15	806	2320	66469	102.45	7.50	21.81	0.10
4	490	15	531	3352	98480	105.00	4.72	38.54	0.15
5	520	15	953	6548	221964	120.62	3.02	44.07	0.29
6	520	15	173	3641	116513	114.06	3.13	69.49	0.16
7	550	15	1054	8615	300555	124.02	3.24	49.10	0.39
8	550	15	307	5406	181958	119.79	2.64	66.67	0.24
9	580	15	1117	10260	370121	128.08	2.27	52.84	0.46
10	580	15	309	5521	199598	128.37	2.51	68.54	0.25
11	610	15	1045	10735	400408	132.28	2.48	56.44	0.48
12	610	15	243	5997	222065	131.37	2.39	75.51	0.27
13	635	15	627	8673	323331	132.22	2.87	63.55	0.39
14	635	15	159	5239	199504	134.95	2.09	80.87	0.23
15	660	15	319	6818	263174	136.73	2.03	73.58	0.31
16	660	15	105	4113	160440	138.13	2.21	83.74	0.18
17	690	15	368	7166	274308	135.63	1.99	71.58	0.32
18	690	15	88	4248	165992	138.33	1.76	86.36	0.19
19	720	15	325	6806	264351	137.55	2.14	73.32	0.31
20	720	15	116	4129	160550	137.69	2.23	82.34	0.19
21	750	15	339	6782	258144	134.89	3.07	71.99	0.30
22	750	15	118	4073	156628	136.23	2.69	81.80	0.18
23	790	15	504	8230	311638	134.22	1.86	67.63	0.37
24	830	15	845	12372	466593	133.70	1.90	65.11	0.55
25	870	15	1032	15733	586869	132.29	1.79	65.78	0.71
26	910	15	1578	22079	829421	133.19	2.56	63.98	0.99
27	940	15	1276	25166	936289	131.96	1.59	71.25	1.13
28	970	15	1539	34482	1261621	129.85	1.92	73.47	1.55
29	995	15	2074	45963	1666342	128.71	1.96	73.08	2.06
30	1015	15	2345	57155	2072971	128.76	1.06	74.90	2.56
31	1030	15	2365	61504	2251354	129.91	1.31	76.27	2.76
32	1030	45	5717	161756	5910057	129.67	1.69	77.73	7.25
33	1030	45	2629	80370	2969393	131.08	1.28	79.22	3.60
34	1030	120	5256	178701	6694349	132.84	1.46	81.12	8.01
35	1040	15	414	14549	543203	132.40	1.45	81.57	0.65
36	1040	45	1297	41959	1573774	132.99	1.36	80.37	1.88
37	1040	120	3618	122569	4593198	132.88	1.73	81.07	5.50
38	1055	15	311	11286	423680	133.11	1.26	82.14	0.51
39	1055	45	855	31492	1182138	133.10	2.08	82.34	1.41
40	1055	120	1718	65872	2487441	133.86	1.01	83.01	2.95
41	1055	120	1070	45868	1749422	135.16	1.60	84.65	2.06
42	1055	120	859	38403	1467532	135.41	1.70	85.20	1.72
43	1055	120	676	31720	1205647	134.71	1.96	85.73	1.42

44	1085	15	130	5836	226200	137.26	1.99	85.43	0.26
45	1115	15	669	21403	803375	133.09	1.91	80.21	0.96
46	1140	15	2667	71244	2698717	134.27	1.10	77.36	3.19
47	1155	15	4892	137110	5221730	134.96	2.89	78.28	6.15
48	1175	15	4779	174298	6759580	137.34	1.39	82.67	7.81
49	1200	15	4439	255275	10104437	140.07	1.54	88.46	11.45
50	1230	15	2058	154467	6218915	142.38	1.10	91.04	6.93
51	1260	15	515	34789	1382922	140.65	1.75	90.03	1.56
52	1300	15	734	43656	1691395	137.22	1.86	88.58	1.96
53	1350	15	839	50299	1986547	139.77	1.33	88.85	2.26
54	1450	15	632	42215	1718449	143.90	1.50	90.15	1.89
55	1500	15	152	7233	290353	141.99	2.42	86.58	0.32
56	1500	15	57	1034	42168	144.12	13.12	71.29	0.05
57	1500	15	42	311	12156	138.35	41.78	49.38	0.01
58	1500	15	32	260	10426	141.79	50.76	52.42	0.01

Step	Temp (°C)	Time (m)	36Ar(a) (cps)	39Ar(k) (cps)	40Ar(r) (cps)	Age (Ma)	2σ (Ma)	40Ar* (%)	39Ar(k) (%)
6EUT-35 K-feldspar (21.96mg)			J = 0.0020397 0.0000102 monitor GA1550 biotite (98.79 0.543 Ma)						
1	400	15	14144	11370	151674	48.43	22.37	3.50	0.12
2	430	15	3417	7494	124599	60.16	12.05	10.98	0.08
3	460	15	1593	9615	189157	70.98	3.65	28.66	0.10
4	490	15	1398	19717	425605	77.73	1.55	50.72	0.20
5	520	15	1141	38142	890152	83.90	1.41	72.46	0.39
6	520	15	103	21652	520492	86.36	0.65	94.40	0.22
7	550	15	466	39398	1027818	93.53	1.16	88.12	0.40
8	550	15	127	27438	768163	100.19	0.74	95.25	0.28
9	580	15	749	41973	1257716	107.03	2.80	84.97	0.43
10	580	15	123	29754	941244	112.80	1.52	96.20	0.30
11	610	15	1038	52284	1763234	120.01	2.58	85.13	0.53
12	610	15	75	27261	925643	120.81	0.90	97.59	0.28
13	635	15	327	38291	1331575	123.63	1.02	93.18	0.39
14	635	15	62	28642	1009206	125.21	2.00	98.14	0.29
15	660	15	150	31249	1111172	126.32	1.37	96.09	0.32
16	660	15	59	24822	894458	127.95	1.05	98.03	0.25
17	690	15	384	35818	1273848	126.34	0.89	91.76	0.37
18	690	15	46	26013	951353	129.80	1.15	98.53	0.27
19	720	15	678	49040	1790085	129.56	1.50	89.87	0.50
20	720	15	49	31121	1131603	129.07	1.42	98.67	0.32
21	750	15	423	52175	1901236	129.34	0.91	93.77	0.53
22	750	15	52	32927	1207092	130.09	0.93	98.66	0.34
23	790	15	528	66760	2432366	129.32	0.80	93.90	0.68
24	830	15	606	92136	3387569	130.46	0.72	94.92	0.94
25	870	15	895	145757	5285576	128.74	0.97	95.17	1.49
26	910	15	1555	164544	5957362	128.54	1.53	92.78	1.68
27	940	15	1325	157387	5715319	128.91	1.07	93.53	1.60
28	970	15	1174	164514	5842434	126.16	1.41	94.33	1.68
29	995	15	1297	164197	5882018	127.23	1.56	93.82	1.67

30	1015	15	1756	186465	6657201	126.81	1.13	92.71	1.90
31	1030	15	2154	207051	7408752	127.09	1.32	92.03	2.11
32	1030	45	4605	482268	17337015	127.66	0.59	92.66	4.92
33	1030	45	3653	369487	13235309	127.22	1.21	92.40	3.77
34	1030	120	5815	648907	23268095	127.34	0.90	93.06	6.61
35	1040	15	458	54102	1954879	128.29	0.99	93.46	0.55
36	1040	45	1365	180129	6438991	126.96	0.88	94.04	1.84
37	1040	120	2472	357987	12774044	126.75	0.93	94.53	3.65
38	1055	12	256	35869	1284047	127.14	1.12	94.37	0.37
39	1055	45	634	95616	3450175	128.12	0.94	94.78	0.97
40	1055	120	1751	274403	9925418	128.42	1.21	94.98	2.80
41	1055	120	1384	215331	7779068	128.27	0.89	94.94	2.19
42	1055	120	1160	178489	6419721	127.72	1.39	94.87	1.82
43	1055	120	1137	160342	5757875	127.53	1.46	94.42	1.63
44	1085	15	308	26892	937656	123.95	1.79	91.10	0.27
45	1115	15	713	55377	1935603	124.24	0.85	90.12	0.56
46	1140	15	864	71727	2564643	127.00	1.37	90.89	0.73
47	1155	15	1717	134732	4786372	126.21	1.53	90.35	1.37
48	1175	15	2816	218183	7758072	126.32	1.23	90.25	2.22
49	1200	15	5695	453975	15908191	124.55	0.68	90.37	4.63
50	1230	15	13750	1123183	39101429	123.76	0.93	90.53	11.45
51	1260	15	14680	1365333	47748713	124.31	0.68	91.61	13.91
52	1300	15	7905	621903	22038512	125.90	0.64	90.36	6.34
53	1350	15	3123	272859	9750648	126.93	1.00	91.29	2.78
54	1450	15	3857	315689	11414640	128.38	0.94	90.86	3.22
55	1500	15	821	69155	2487332	127.72	1.11	91.05	0.70
56	1500	15	124	4243	150596	126.09	3.62	80.40	0.04
57	1500	15	48	723	26623	130.60	19.25	65.39	0.01
58	1500	30	41	171	6333	131.29	81.05	34.29	0.00

Notes: Both samples were ³⁷Ar-dead (so no Ca-based corrections were applied)

Data were reduced using ArArCalc (by Anthony Koppers)

Sensitivity: $\sim 1.13 \times 10^{-19}$ mol/cps. Discrimination (1 amu): 1.000564