































Relative Abundances			36Ar [fA]	%1σ	37Ar [fA]	%1σ	38Ar [fA]	%1σ	39Ar [fA]	%1σ	40Ar [fA]	%1σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	40Ar(r) (%)	39Ar(k) (%)	K/Ca ± 2σ
21F25577	24.0 %		0.1142294	0.482	0.438147	3.175	0.3474276	2.659	23.42697	0.061	306.8628	0.010	11.64399 ± 0.02039	34.69 ± 0.06	88.89	5.32	23.0 ± 1.5
21F25578	24.0 %		0.0376185	0.974	0.116841	11.762	0.2253626	3.947	16.74223	0.073	206.6910	0.015	11.67466 ± 0.02186	34.78 ± 0.06	94.57	3.80	61.6 ± 14.5
21F25580	24.0 %		0.0660975	0.710	0.128186	10.381	0.1573205	6.352	9.98191	0.103	136.8324	0.022	11.73160 ± 0.03772	34.94 ± 0.11	85.58	2.27	33.5 ± 7.0
21F25581	24.0 %		0.0992836	0.557	0.303089	4.379	0.1979107	5.010	12.99674	0.082	182.0260	0.016	11.72624 ± 0.03249	34.93 ± 0.10	83.72	2.95	18.4 ± 1.6
21F25583	24.0 %		0.0449412	0.903	0.366942	3.951	0.2368099	3.686	17.77676	0.067	219.6461	0.013	11.60224 ± 0.02099	34.56 ± 0.06	93.90	4.04	20.8 ± 1.6
21F25584	24.0 %		0.0215545	1.625	0.041698	34.300	0.1378435	6.178	10.30787	0.097	126.7512	0.020	11.67199 ± 0.03087	34.77 ± 0.09	94.92	2.34	106.3 ± 72.9
21F25586	24.0 %		0.0530746	0.957	0.157393	8.699	0.1581357	5.908	10.35119	0.100	136.7007	0.019	11.67621 ± 0.03795	34.78 ± 0.11	88.41	2.35	28.3 ± 4.9
21F25587	24.0 %		0.0587986	0.783	0.090766	14.015	0.1812375	5.043	12.11884	0.087	158.7514	0.016	11.65106 ± 0.03085	34.71 ± 0.09	88.94	2.75	57.4 ± 16.1
21F25589	24.0 %		0.0476188	0.864	0.015644	87.803	0.1585955	5.467	10.35800	0.102	134.9930	0.019	11.65972 ± 0.03400	34.73 ± 0.10	89.46	2.35	284.7 ± 500.0
21F25590	24.0 %		0.1245450	0.501	0.145977	9.861	0.1295595	6.729	6.97422	0.149	119.7184	0.022	11.83548 ± 0.06547	35.25 ± 0.19	68.95	1.58	20.5 ± 4.1
21F25592	24.0 %		0.1039680	0.581	0.833896	1.617	0.3081283	3.103	22.94180	0.059	298.7201	0.011	11.67036 ± 0.02123	34.76 ± 0.06	89.63	5.21	11.8 ± 0.4
21F25593	24.0 %		0.0891598	0.590	1.344736	1.009	0.2820673	3.172	20.50802	0.066	266.6028	0.012	11.70711 ± 0.02219	34.87 ± 0.07	90.05	4.66	6.6 ± 0.1
21F25595	24.0 %		0.1252502	1.050	0.502137	2.660	0.3266022	2.841	21.44018	0.064	284.0057	0.067	11.50376 ± 0.04339	34.27 ± 0.13	86.84	4.87	18.4 ± 1.0
21F25596	24.0 %		0.1510283	0.480	0.450206	3.119	0.3469866	2.675	23.52146	0.059	320.1124	0.012	11.69346 ± 0.02357	34.83 ± 0.07	85.92	5.35	22.5 ± 1.4
21F25598	24.0 %		0.0460637	1.045	0.492050	2.685	0.1222071	7.985	8.29536	0.125	110.6138	0.028	11.68118 ± 0.04605	34.79 ± 0.14	87.60	1.89	7.2 ± 0.4
21F25599	24.0 %		0.0298746	1.354	0.096650	14.574	0.1305121	6.706	8.40901	0.128	107.1262	0.028	11.67920 ± 0.04221	34.79 ± 0.12	91.68	1.91	37.4 ± 10.9
21F25601	24.0 %		0.0346324	1.220	0.113331	12.226	0.2042671	4.528	14.36079	0.080	178.1567	0.017	11.68587 ± 0.02600	34.81 ± 0.08	94.20	3.26	54.5 ± 13.3
21F25602	24.0 %		0.0242776	1.670	0.222010	6.195	0.1145378	8.151	7.24903	0.135	91.2597	0.029	11.59145 ± 0.04645	34.53 ± 0.14	92.07	1.65	14.0 ± 1.7
21F25604	24.0 %		0.0616299	0.828	0.577341	2.247	0.1884006	4.931	13.31861	0.079	173.1834	0.016	11.62480 ± 0.02985	34.63 ± 0.09	89.40	3.03	9.9 ± 0.4
21F25605	24.0 %		0.0259044	1.428	0.194859	6.773	0.2276177	4.097	17.58171	0.069	211.8023	0.015	11.60723 ± 0.02076	34.58 ± 0.06	96.35	4.00	38.8 ± 5.3
21F25607	24.0 %		0.0217448	1.814	0.194243	7.639	0.1184304	8.283	8.65665	0.119	107.7997	0.025	11.70425 ± 0.03943	34.86 ± 0.12	93.99	1.97	19.2 ± 2.9
21F25608	24.0 %		0.0700752	0.719	0.211348	6.266	0.2066150	4.618	14.31824	0.078	188.0994	0.016	11.67657 ± 0.02822	34.78 ± 0.08	88.88	3.25	29.1 ± 3.7
21F25610	24.0 %		0.0310907	1.312	0.107802	12.336	0.1896094	4.715	13.63020	0.082	167.7565	0.017	11.62679 ± 0.02646	34.63 ± 0.08	94.47	3.10	54.4 ± 13.4
21F25611	24.0 %		0.1087563	0.521	0.442061	3.094	0.2508372	3.617	16.93213	0.072	230.2307	0.012	11.68131 ± 0.02663	34.80 ± 0.08	85.91	3.85	16.5 ± 1.0
21F25613	24.0 %		0.1249884	0.512	0.453777	3.078	0.2079474	4.698	13.92095	0.079	199.7789	0.015	11.67263 ± 0.03382	34.77 ± 0.10	81.34	3.16	13.2 ± 0.8
21F25614	24.0 %		0.0732075	0.724	0.153582	8.886	0.2132193	4.203	14.26753	0.079	188.7458	0.015	11.69748 ± 0.02925	34.84 ± 0.09	88.42	3.24	39.9 ± 7.1
21F25616	24.0 %		0.0436931	0.993	0.583119	2.452	0.3061457	3.164	21.01162	0.064	257.4746	0.011	11.63493 ± 0.01952	34.66 ± 0.06	94.95	4.77	15.5 ± 0.8
21F25617	24.0 %		0.0282612	1.363	0.353670	3.746	0.2266262	4.305	16.16103	0.073	196.6209	0.015	11.64560 ± 0.02253	34.69 ± 0.07	95.72	3.67	19.6 ± 1.5
21F25619	24.0 %		0.1030956	0.551	0.499221	2.849	0.1295878	6.737	6.49330	0.147	107.6445	0.022	11.84371 ± 0.06398	35.27 ± 0.19	71.44	1.48	5.6 ± 0.3
21F25620	24.0 %		0.0735581	0.702	0.413485	3.384	0.3684268	2.578	26.00314	0.054	324.8482	0.009	11.64889 ± 0.01749	34.70 ± 0.05	93.25	5.91	27.0 ± 1.8
Σ			2.0380216	0.146	10.044206	0.749	6.3989750	0.793	440.05550	0.014	5739.5553	0.004					

Information on Analysis and Constants Used in Calculations

Project = **HOUCK (21-28)**
Sample = **KH245**
Material = **biotite**
Location = **Spinney Mountain Quad**
Region = **Cent. CO Volcanic Field**
Analyst = **Dan Miggins**
Irradiation = **21-OSU-05 (5D10-21)**
Position = **X: 999 | Y: 999 | Z/H: 12.65559 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.45039 ± 0.00973**
FCT-NM J-value = **0.00164284 ± 0.00000169**
Air Shot 40Ar/36Ar = **299.9950 ± 0.3150**
Air Shot MDF = **0.99880260 ± 0.00036818 (LIN)**
Experiment Type = **Total Fusion**

Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.463 ± 0.107 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β⁺) = **0.580 ± 0.014 E-10 1/a**
Decay 40K(β⁻) = **4.884 ± 0.099 E-10 1/a**
Atmospheric 40/36(a) = **298.56 ± 0.31**
Atmospheric 38/36(a) = **0.1885 ± 0.0003**
Production 39/37(ca) = **0.0006425 ± 0.0000059**
Production 38/37(ca) = **0.0001800 ± 0.0000173**
Production 36/37(ca) = **0.0002703 ± 0.0000005**
Production 40/39(k) = **0.000607 ± 0.000059**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau Error Mean		11.65979 ± 0.01566 ± 0.13%	34.73 ± 0.08 ± 0.24%	9.86 0%	100.00 30	37.2 ± 18.7
			Full External Error ± 1.80 Analytical Error ± 0.05	1.53 3.1397	2σ Confidence Limit Error Magnification	
Total Fusion Age		11.66151 ± 0.00541 ± 0.05%	34.74 ± 0.07 ± 0.21%		30	18.8 ± 0.3
			Full External Error ± 1.80 Analytical Error ± 0.02			
Normal Isochron Error Chron	308.19 ± 5.73 ± 1.86%	11.62192 ± 0.02642 ± 0.23%	34.62 ± 0.11 ± 0.30%	6.83 0%	100.00 30	
			Full External Error ± 1.79 Analytical Error ± 0.08	1.53 2.6132	2σ Confidence Limit Error Magnification Number of Iterations	
				1		

276675	Convergence
29%	Spreading Factor