EXP#23G09570 > 4A22-8 > STEELY (22-19)
NORTHEAST WASHINGTON > HUNTERS
23-OSU-01 (1B16-23) > Incremental Heating > HORNBLENDE > Dan Miggins

Information on Analysis and Constants Used in Calculations

Project = **STEELY (22-19)**
Sample = **4A22-8**
Material = **HORNBLENDE**
Location = **Hunters**
Region = **Northeast Washington**
Analyst = **Dan Miggins**
Irradiation = **23-OSU-01 (1B16-23)**
Position = **X: 999 | Y: 999 | Z/H: 20.84055 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.43970 ± 0.00850**
FCT-NM J-value = **0.00164470 ± 0.00000148**
Air Shot 40Ar/36Ar = **307.8360 ± 0.3694**
Air Shot MDF = **0.99245703 ± 0.00038552 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **50 sec**
Isolation = **2.00 min**
Instrument = **ARGUS-VI-G**
Preferred Age = **Plateau Age**
Age Classification = **Crystallization Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = Undefined
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K(total) = **5.463 ± 0.107 E-10 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**
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**
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**
Production 38/39(k) = **0.012077 ± 0.000011**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**
Trapped 40/36(a) = **312.22 ± 4.07**
Trapped 38/36(a) = **0.1885 ± 0.0003**
Standard MDF 40/36(a) = **298.56 ± 0.31**
Standard MDF Reference = **Lee et al 2006**

Excess 40/36 = 312.22 ± 1.30 (%SD).

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		17.34955 ± 0.01024 (± 0.06%)	**51.50 ± 0.10 (± 0.19%)**	1.18	94.63	0.090 ± 0.001
			Full External Error ± 2.66	26%	22	
			Analytical Error ± 0.03	1.62	2σ Confidence Limit	
				1.0864	Error Magnification	
Total Fusion Age		17.35585 ± 0.01014 (± 0.06%)	**51.52 ± 0.10 (± 0.19%)**		30	0.089 ± 0.000
			Full External Error ± 2.66			
			Analytical Error ± 0.03			
Normal Isochron	**370.74 ± 29.44 (± 7.94%)**	17.16530 ± 0.08618 (± 0.50%)	**50.96 ± 0.27 (± 0.53%)**	18.15	94.63	
No Convergence			Full External Error ± 2.64	0%	22	
			Analytical Error ± 0.25	1.63	2σ Confidence Limit	
				4.2607	Error Magnification	
Inverse Isochron	**312.22 ± 8.13 (± 2.61%)**	17.35035 ± 0.02347 (± 0.14%)	**51.50 ± 0.11 (± 0.22%)**	1.56	94.63	
			Full External Error ± 2.66	5%	22	
			Analytical Error ± 0.07	1.63	2σ Confidence Limit	
				1.2476	Error Magnification	
				14%	Spreading Factor