EXP#23G10091 > 12A22-3 > STEELY (22-19)
NORTHEAST WASHINGTON > HUNTERS
23-OSU-01 (1B30-23) > Incremental Heating > MUSCOVITE > Dan Miggins

Information on Analysis and Constants Used in Calculations

Project = **STEELY (22-19)**
Sample = **12A22-3**
Material = **MUSCOVITE**
Location = **Hunters**
Region = **Northeast Washington**
Analyst = **Dan Miggins**
Irradiation = **23-OSU-01 (1B30-23)**
Position = **X: 999 | Y: 999 | Z/H: 42.54563 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.66795 ± 0.00851**
FCT-NM J-value = **0.00160587 ± 0.00000141**
Air Shot 40Ar/36Ar = **308.3850 ± 0.4780**
Air Shot MDF = **0.99202482 ± 0.00045236 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **50 sec**
Isolation = **3.00 min**
Instrument = **ARGUS-VI-G**
Preferred Age = **Plateau Age**
Age Classification = **Metamorphic 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) = **1507.20 ± 273.38**
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 = 1507.20 ± 18.14 (%SD).

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		28.50106 ± 0.26118	**81.92 ± 0.75**	1.79	90.30	225 ± 182
Error Mean		± 0.92%	**± 0.91%**	1%	23	
			Full External Error ± 4.28	1.60	2σ Confidence Limit	
			Analytical Error ± 0.73	1.3386	Error Magnification	
Total Fusion Age		26.90637 ± 0.52630	**77.43 ± 1.49**		36	95 ± 9
		± 1.96%	**± 1.92%**			
			Full External Error ± 4.25			
			Analytical Error ± 1.48			
Normal Isochron	**617.37 ± 364.26**	29.80295 ± 0.80333	**85.57 ± 2.26**	> 100	90.30	
No Convergence	**± 59.00%**	± 2.70%	**± 2.64%**	0%	23	
			Full External Error ± 4.94	1.62	2σ Confidence Limit	
			Analytical Error ± 2.25	> 10	Error Magnification	
Inverse Isochron	**1507.20 ± 546.75**	28.05499 ± 0.97396	**80.66 ± 2.74**	> 100	90.30	
Error Chron	**± 36.28%**	± 3.47%	**± 3.40%**	0%	23	
			Full External Error ± 4.97	1.62	2σ Confidence Limit	
			Analytical Error ± 2.74	> 10	Error Magnification	
				7%	Spreading Factor