

EXP#23G09891 > 14A22-2A > STEELY (22-19)
NORTHEAST WASHINGTON > HUNTERS
23-OSU-01 (1B28-23) > Incremental Heating > MUSCOVITE > Dan Miggins

**Information on Analysis
and Constants Used in Calculations**

Project = **STEELY (22-19)**
Sample = **14A22-2A**
Material = **MUSCOVITE**
Location = **Hunters**
Region = **Northeast Washington**
Analyst = **Dan Miggins**
Irradiation = **23-OSU-01 (1B28-23)**
Position = **X: 999 | Y: 999 | Z/H: 39.04163 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.62057 ± 0.00856**
FCT-NM J-value = **0.00161378 ± 0.00000144**
Air Shot 40Ar/36Ar = **307.4080 ± 0.3873**
Air Shot MDF = **0.99279505 ± 0.00039720 (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) = **298.56 ± 0.31**
Trapped 38/36(a) = **0.1885 ± 0.0003**
Standard MDF 40/36(a) = **298.56 ± 0.31**
Standard MDF Reference = **Lee et al 2006**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%n)	K/Ca ± 2σ
Age Plateau		24.73315 ± 0.01059 ± 0.04%	71.64 ± 0.13 ± 0.18%	0.85 66% 1.59 1.0000	60.23 24	709 ± 1537
			Full External Error ± 3.69 Analytical Error ± 0.03		2σ Confidence Limit Error Magnification	
Total Fusion Age		24.66420 ± 0.00933 ± 0.04%	71.45 ± 0.13 ± 0.18%		42	63 ± 6
			Full External Error ± 3.68 Analytical Error ± 0.03			
Normal Isochron	314.74 ± 17.30 ± 5.50%	24.70097 ± 0.03509 ± 0.14%	71.55 ± 0.16 ± 0.22%	0.77 76% 1.60 1.0000	60.23 24	2σ Confidence Limit Error Magnification
			Full External Error ± 3.69 Analytical Error ± 0.10			
Inverse Isochron Clustered Points	312.27 ± 17.28 ± 5.53%	24.70669 ± 0.03517 ± 0.14%	71.57 ± 0.16 ± 0.22%	0.78 75% 1.60 1.0000	60.23 24	2σ Confidence Limit Error Magnification Spreading Factor
			Full External Error ± 3.69 Analytical Error ± 0.10			

