EXP#23G09786 > 4A22-3 > STEELY (22-19)
NORTHEAST WASHINGTON > HUNTERS
23-OSU-01 (1B19-23) > Incremental Heating > GROUNDMASS > Dan Miggins

Information on Analysis and Constants Used in Calculations

Project = **STEELY (22-19)**
Sample = **4A22-3**
Material = **GROUNDMASS**
Location = **Hunters**
Region = **Northeast Washington**
Analyst = **Dan Miggins**
Irradiation = **23-OSU-01 (1B19-23)**
Position = **X: 999 | Y: 999 | Z/H: 25.50191 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.47567 ± 0.00853**
FCT-NM J-value = **0.00163846 ± 0.00000147**
Air Shot 40Ar/36Ar = **308.5940 ± 0.4228**
Air Shot MDF = **0.99186069 ± 0.00041656 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **50 sec**
Isolation = **2.00 min**
Instrument = **ARGUS-VI-G**
Preferred Age = **Mini Plateau**
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) = **293.99 ± 1.77**
Trapped 38/36(a) = **0.1885 ± 0.0003**
Standard MDF 40/36(a) = **298.56 ± 0.31**
Standard MDF Reference = **Lee et al 2006**

Sub-atmospheric 40/36 = 293.99 ± 0.60 (%SD).

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		17.45345 ± 0.02227 (± 0.13%)	**51.61 ± 0.11 (± 0.22%)**	0.60	23.53	0.89 ± 0.22
			Full External Error ± 2.67	80%	10	
			Analytical Error ± 0.06	1.94	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		17.64493 ± 0.01163 (± 0.07%)	**52.17 ± 0.10 (± 0.19%)**		31	1.08 ± 0.00
			Full External Error ± 2.69			
			Analytical Error ± 0.03			
Normal Isochron	**294.06 ± 3.55 (± 1.21%)**	17.44995 ± 0.06340 (± 0.36%)	**51.60 ± 0.21 (± 0.40%)**	3.59	23.53	
Error Chron			Full External Error ± 2.67	0%	10	
			Analytical Error ± 0.18	2.00	2σ Confidence Limit	
				1.8946	Error Magnification	
Inverse Isochron	**293.99 ± 3.54 (± 1.21%)**	17.45143 ± 0.06333 (± 0.36%)	**51.61 ± 0.21 (± 0.40%)**	3.59	23.53	
Error Chron			Full External Error ± 2.67	0%	10	
			Analytical Error ± 0.18	2.00	2σ Confidence Limit	
				1.8946	Error Magnification	
				19%	Spreading Factor