EXP#22F05927 > AS24AUG21-10A > STEELY (21-32)
WESTERN CASCADES > NORTH BEND
22-OSU-01 (1B24-22) > Incremental Heating > Groundmass > Dan Miggins

Information on Analysis and Constants Used in Calculations

Project = **STEELY (21-32)**
Sample = **AS24AUG21-10A**
Material = **Groundmass**
Location = **North Bend**
Region = **Western Cascades**
Analyst = **Dan Miggins**
Irradiation = **22-OSU-01 (1B24-22)**
Position = **X: 999 | Y: 999 | Z/H: 42.77696 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.76798 ± 0.00938**
FCT-NM J-value = **0.00158943 ± 0.00000153**
Air Shot 40Ar/36Ar = **300.2290 ± 0.3182**
Air Shot MDF = **0.99860843 ± 0.00036966 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **50 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-F**
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) = **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		6.37048 ± 0.01213 (± 0.19%)	**18.44 ± 0.05 (± 0.27%)**	2.19	15.56	1.71 ± 0.18
		Full External Error ± 0.96		9%	4	
		Analytical Error ± 0.03		2.63	2σ Confidence Limit	
				1.4805	Error Magnification	
Total Fusion Age		6.62968 ± 0.00391 (± 0.06%)	**19.19 ± 0.04 (± 0.20%)**		28	1.39 ± 0.00
		Full External Error ± 1.00				
		Analytical Error ± 0.01				
Normal Isochron	**306.02 ± 29.18 (± 9.54%)**	6.36060 ± 0.04255 (± 0.67%)	**18.41 ± 0.13 (± 0.69%)**	2.51	15.56	
		Full External Error ± 0.96		8%	4	
		Analytical Error ± 0.12		3.00	2σ Confidence Limit	
				1.5830	Error Magnification	
Inverse Isochron	**311.37 ± 27.96 (± 8.98%)**	6.35274 ± 0.04080 (± 0.64%)	**18.39 ± 0.12 (± 0.67%)**	2.30	15.56	
		Full External Error ± 0.96		10%	4	
		Analytical Error ± 0.12		3.00	2σ Confidence Limit	
				1.5161	Error Magnification	
				5%	Spreading Factor