

**EXP#22F05989 > AS25AUG21-4 > STEELY (21-32)**  
**WESTERN CASCADES > NORTH BEND**  
**22-OSU-01 (1B23-22) > Incremental Heating > Groundmass > Dan Miggins**

Information on Analysis and Constants Used in Calculations
Project = STEELY (21-32) Sample = AS25AUG21-4 Material = Groundmass Location = North Bend Region = Western Cascades Analyst = Dan Miggins Irradiation = 22-OSU-01 (1B23-22) Position = X: 999   Y: 999   Z/H: 40.61648 mm FCT-NM Age = 28.201 ± 0.023 Ma FCT-NM Reference = Kuiper et al (2008) FCT-NM 40Ar/39Ar Ratio = 9.73126 ± 0.00944 FCT-NM J-value = 0.00159542 ± 0.00000155 Air Shot 40Ar/36Ar = 300.5360 ± 0.3697 Air Shot MDF = 0.99835415 ± 0.00040056 (LIN) Experiment Type = Incremental Heating Extraction Method = Bulk Laser Heating Heating = 30 sec Isolation = 6.00 min Instrument = ARGUS-VI-F Preferred Age = Inverse Isochron 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 <sup>+</sup> ) = 0.580 ± 0.014 E-10 1/a Decay 40K(β <sup>-</sup> ) = 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) = 321.26 ± 6.19 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 = 321.26 ± 1.93 (%SD).

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		8.82806 ± 0.02200 ± 0.25%	25.60 ± 0.08 ± 0.31%	0.48 85%	8.84 8	1.48 ± 0.04
		Full External Error ± 1.33 Analytical Error ± 0.06		2.07 1.0000	2σ Confidence Limit Error Magnification	
Total Fusion Age		9.09813 ± 0.00691 ± 0.08%	26.38 ± 0.05 ± 0.21%		28	3.11 ± 0.00
		Full External Error ± 1.37 Analytical Error ± 0.02				
Normal Isochron Error Chron	321.57 ± 12.27 ± 3.81%	8.82887 ± 0.05453 ± 0.62%	25.60 ± 0.16 ± 0.64%	2.40 3%	8.84 8	
		Full External Error ± 1.34 Analytical Error ± 0.16		2.15 1.5487	2σ Confidence Limit Error Magnification	
Inverse Isochron Error Chron	321.26 ± 12.39 ± 3.86%	8.83090 ± 0.05505 ± 0.62%	25.61 ± 0.17 ± 0.65%	2.42 2%	8.84 8	
		Full External Error ± 1.34 Analytical Error ± 0.16		2.15 1.5562	2σ Confidence Limit Error Magnification	
				13%	Spreading Factor	

