

EXP#18D25415 > 380-MCB-DRJ-17 > Groundmass > MCCLAUGHRY (18-09)
EASTERN CASCADES > BLUEGRASS RIDGE
18-OSU-04 (4C19-18) > Incremental Heating > Dan Miggins

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

Project = MCCLAUGHRY (18-09)
Sample = 380-MCB-DRJ-17
Material = Groundmass
Location = Bluegrass Ridge
Region = Eastern Cascades
Analyst = Dan Miggins
Irradiation = 18-OSU-04 (4C19-18)
Position = X: 999 | Y: 999 | Z/H: 30.81 mm
FCT-NM Age = 28.201 ± 0.023 Ma
FCT-NM Reference = Kuiper et al (2008)
FCT-NM 40Ar/39Ar Ratio = 10.00748 ± 0.00741
FCT-NM J-value = 0.00157056 ± 0.00000116
Air Shot 40Ar/36Ar = 306.0020 ± 0.3733
Air Shot MDF = 0.99140890 ± 0.00064436 (LIN)
Experiment Type = Incremental Heating
Extraction Method = Bulk Laser Heating
Heating = 64 sec
Isolation = 5.10 min
Instrument = ARGUS-VI-D
Preferred Age = Plateau Age
Age Classification = Eruption 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 = 5.530 ± 0.048 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
Decay 40K(EC,β⁺) = 0.580 ± 0.009 E-10 1/a
Decay 40K(β⁻) = 4.950 ± 0.043 E-10 1/a
Atmospheric 40/36(a) = 295.50
Atmospheric 38/36(a) = 0.1869
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

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%n)	K/Ca ± 2σ
Age Plateau		0.92548 ± 0.00156 ± 0.17%	2.63 ± 0.01 ± 0.22%	0.37 100%	93.90 25	0.263 ± 0.016
		Full External Error ± 0.06 Analytical Error ± 0.00		1.58 1.0000	2σ Confidence Limit Error Magnification	
Total Fusion Age		0.92407 ± 0.00197 ± 0.21%	2.62 ± 0.01 ± 0.26%		32	0.228 ± 0.001
		Full External Error ± 0.06 Analytical Error ± 0.01				
Normal Isochron	299.01 ± 4.00 ± 1.34%	0.92350 ± 0.00255 ± 0.28%	2.62 ± 0.01 ± 0.31%	0.28 100%	93.90 25	
Overestimated		Full External Error ± 0.06 Analytical Error ± 0.01		1.59 1.0000	2σ Confidence Limit Error Magnification	
Inverse Isochron	298.53 ± 4.01 ± 1.34%	0.92396 ± 0.00255 ± 0.28%	2.62 ± 0.01 ± 0.31%	0.28 100%	93.90 25	
Overestimated		Full External Error ± 0.06 Analytical Error ± 0.01		1.59 1.0000	2σ Confidence Limit Error Magnification	
				58%	Spreading Factor	

