

EXP#20F28691 > 34 DRBLJ 19 > Groundmass > MCCLAUGHRY (19-20)
EASTERN CASCADES > BADGER LAKE
20-OSU-04 (4B8-20) > Incremental Heating > Dan Miggins

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

Project = MCCLAUGHRY (19-20)
Sample = 34 DRBLJ 19
Material = Groundmass
Location = Badger Lake
Region = Eastern Cascades
Analyst = Dan Miggins
Irradiation = 20-OSU-04 (4B8-20)
Position = X: 0 | Y: 0 | Z/H: 9.482945 mm
FCT-NM Age = 28.201 ± 0.023 Ma
FCT-NM Reference = Kuiper et al (2008)
FCT-NM 40Ar/39Ar Ratio = 9.34147 ± 0.00448
FCT-NM J-value = 0.00166200 ± 0.00000080
Air Shot 40Ar/36Ar = 298.8060 ± 0.3466
Air Shot MDF = 0.99979391 ± 0.00038967 (LIN)
Experiment Type = Incremental Heating
Extraction Method = Bulk Laser Heating
Heating = 64 sec
Isolation = 6.12 min
Instrument = ARGUS-VI-F
Preferred Age = Plateau Age
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 = 5.463 ± 0.107 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 ± 0.014 E-10 1/a
Decay 40K(β⁻) = 4.884 ± 0.099 E-10 1/a
Atmospheric 40/36(a) = 298.56 ± 0.31
Atmospheric 38/36(a) = 0.1885 ± 0.0003
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		1.76848 ± 0.01900	5.37 ± 0.06	4.22	66.53	1.26 ± 0.23
Error Mean		± 1.07%	± 1.08%	0%	12	
		Full External Error ± 0.29		1.85	2σ Confidence Limit	
		Analytical Error ± 0.06		2.0550	Error Magnification	
Total Fusion Age		1.61210 ± 0.01207	4.90 ± 0.04		29	1.69 ± 0.00
		± 0.75%	± 0.75%			
		Full External Error ± 0.26				
		Analytical Error ± 0.04				
Normal Isochron	285.28 ± 19.49	1.88529 ± 0.17332	5.73 ± 0.53	4.07	66.53	
Error Chron	± 6.83%	± 9.19%	± 9.18%	0%	12	
		Full External Error ± 0.60		1.89	2σ Confidence Limit	
		Analytical Error ± 0.53		2.0181	Error Magnification	
Inverse Isochron	285.15 ± 19.38	1.88730 ± 0.16876	5.73 ± 0.51	4.05	66.53	
Error Chron	± 6.80%	± 8.94%	± 8.93%	0%	12	
		Full External Error ± 0.59		1.89	2σ Confidence Limit	
		Analytical Error ± 0.51		2.0135	Error Magnification	
				10%	Spreading Factor	

