

EXP#20F29051 > 34 DRBLJ 19 > Plagioclase > MCCLAUGHRY (19-20)
EASTERN CASCADES > BADGER LAKE
20-OSU-04 (4B14-20) > Incremental Heating > Dan Miggins

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

Project = MCCLAUGHRY (19-20)
Sample = 34 DRBLJ 19
Material = Plagioclase
Location = Badger Lake
Region = Eastern Cascades
Analyst = Dan Miggins
Irradiation = 20-OSU-04 (4B14-20)
Position = X: 0 | Y: 0 | Z/H: 17.44514 mm
FCT-NM Age = 28.201 ± 0.023 Ma
FCT-NM Reference = Kuiper et al (2008)
FCT-NM 40Ar/39Ar Ratio = 9.36382 ± 0.00449
FCT-NM J-value = 0.00165803 ± 0.00000080
Air Shot 40Ar/36Ar = 297.7520 ± 0.4526
Air Shot MDF = 1.00067929 ± 0.00046228 (LIN)
Experiment Type = Incremental Heating
Extraction Method = Bulk Laser Heating
Heating = 64 sec
Isolation = 1.62 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) = 299.63 ± 0.83
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

Excess Initial 40Ar/36Ar = 299.63 ± 0.28 (%SD).

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%n)	K/Ca ± 2σ
Age Plateau		2.89927 ± 0.09576	8.78 ± 0.29	2.34	95.72	0.0269 ± 0.0011
Error Mean		± 3.30%	± 3.30%	0%	21	
		Full External Error ± 0.54		1.63	2σ Confidence Limit	
		Analytical Error ± 0.29		1.5306	Error Magnification	
Total Fusion Age		3.23769 ± 0.13776	9.80 ± 0.42		23	0.0281 ± 0.0001
		± 4.25%	± 4.24%			
		Full External Error ± 0.66				
		Analytical Error ± 0.42				
Normal Isochron	299.61 ± 1.66	2.88752 ± 0.18507	8.74 ± 0.56	3.93	95.72	
Error Chron	± 0.55%	± 6.41%	± 6.39%	0%	21	
		Full External Error ± 0.72		1.65	2σ Confidence Limit	
		Analytical Error ± 0.56		1.9823	Error Magnification	
Inverse Isochron	299.63 ± 1.65	2.89039 ± 0.18242	8.75 ± 0.55	3.91	95.72	
Error Chron	± 0.55%	± 6.31%	± 6.30%	0%	21	
		Full External Error ± 0.71		1.65	2σ Confidence Limit	
		Analytical Error ± 0.55		1.9767	Error Magnification	
				21%	Spreading Factor	

