

EXP#20F28901 > 84 DRBLJ 19 > Plagioclase > MCCLAUGHRY (19-20)
EASTERN CASCADES > BADGER LAKE
20-OSU-04 (4B11-20) > Incremental Heating > Dan Miggins

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

Project = **MCCLAUGHRY (19-20)**
Sample = **84 DRBLJ 19**
Material = **Plagioclase**
Location = **Badger Lake**
Region = **Eastern Cascades**
Analyst = **Dan Miggins**
Irradiation = **20-OSU-04 (4B11-20)**
Position = **X: 0 | Y: 0 | Z/H: 13.68431 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.34924 ± 0.00449**
FCT-NM J-value = **0.00166062 ± 0.00000080**
Air Shot 40Ar/36Ar = **297.7650 ± 0.4675**
Air Shot MDF = **1.00066834 ± 0.00047267 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **64 sec**
Isolation = **1.62 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 = **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		0.69114 ± 0.03040 ± 4.40%	2.10 ± 0.09 ± 4.40%	0.83 53%	40.14 6	0.0518 ± 0.0016
		Full External Error ± 0.14 Analytical Error ± 0.09		2.26 1.0000	2σ Confidence Limit Error Magnification	
Total Fusion Age		0.71752 ± 0.07251 ± 10.11%	2.18 ± 0.22 ± 10.10%		23	0.0539 ± 0.0001
		Full External Error ± 0.25 Analytical Error ± 0.22				
Normal Isochron	299.63 ± 21.24 ± 7.09%	0.67341 ± 0.34071 ± 50.60%	2.05 ± 1.03 ± 50.57%	1.05 38%	40.14 6	
		Full External Error ± 1.04 Analytical Error ± 1.03		2.41 1.0235	2σ Confidence Limit Error Magnification	
Inverse Isochron Clustered Points	299.46 ± 21.20 ± 7.08%	0.67670 ± 0.29532 ± 43.64%	2.06 ± 0.90 ± 43.62%	1.05 38%	40.14 6	
		Full External Error ± 0.90 Analytical Error ± 0.90		2.41 1.0245	2σ Confidence Limit Error Magnification	
				3%	Spreading Factor	

