

EXP#18D25708 > 375-MCB-DRJ-17 > Plagioclase > MCCLAUGHRY (18-09)
EASTERN CASCADES > BLUEGRASS RIDGE
18-OSU-04 (4C17-18) > Incremental Heating > Dan Miggins

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

Project = **MCCLAUGHRY (18-09)**
Sample = **375-MCB-DRJ-17**
Material = **Plagioclase**
Location = **Bluegrass Ridge**
Region = **Eastern Cascades**
Analyst = **Dan Miggins**
Irradiation = **18-OSU-04 (4C17-18)**
Position = **X: 999 | Y: 999 | Z/H: 27.76 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.97632 ± 0.00748**
FCT-NM J-value = **0.00157547 ± 0.00000118**
Air Shot 40Ar/36Ar = **305.6250 ± 0.3056**
Air Shot MDF = **0.99170709 ± 0.00062258 (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) = **295.41 ± 0.99**
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		0.82817 ± 0.01222 ± 1.48%	2.36 ± 0.03 ± 1.48%	1.52 7%	56.16 20	0.0347 ± 0.0002
		Full External Error ± 0.06		1.65	2σ Confidence Limit	
		Analytical Error ± 0.03		1.2315	Error Magnification	
Total Fusion Age		0.85905 ± 0.01183 ± 1.38%	2.45 ± 0.03 ± 1.38%		28	0.0355 ± 0.0001
		Full External Error ± 0.06				
		Analytical Error ± 0.03				
Normal Isochron	294.81 ± 1.30 ± 0.44%	0.82898 ± 0.01382 ± 1.67%	2.36 ± 0.04 ± 1.67%	1.71 3%	56.16 20	
Error Chron		Full External Error ± 0.07		1.67	2σ Confidence Limit	
		Analytical Error ± 0.04		1.3066	Error Magnification	
Inverse Isochron	294.81 ± 1.32 ± 0.45%	0.83063 ± 0.01402 ± 1.69%	2.36 ± 0.04 ± 1.69%	1.76 2%	56.16 20	
Error Chron		Full External Error ± 0.07		1.67	2σ Confidence Limit	
		Analytical Error ± 0.04		1.3275	Error Magnification	
				57%	Spreading Factor	

