

**EXP#20F29117 > 178 DFWJ 15 > Plagioclase > MCCLAUGHRY (19-20)**  
**EASTERN CASCADES > BADGER LAKE**  
**20-OSU-04 (4B16-20) > Incremental Heating > Dan Miggins**

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

Project = **MCCLAUGHRY (19-20)**  
Sample = **178 DFWJ 15**  
Material = **Plagioclase**  
Location = **Badger Lake**  
Region = **Eastern Cascades**  
Analyst = **Dan Miggins**  
Irradiation = **20-OSU-04 (4B16-20)**  
Position = **X: 0 | Y: 0 | Z/H: 19.94858 mm**  
FCT-NM Age = **28.201 ± 0.023 Ma**  
FCT-NM Reference = **Kuiper et al (2008)**  
FCT-NM 40Ar/39Ar Ratio = **9.37737 ± 0.00450**  
FCT-NM J-value = **0.00165563 ± 0.00000079**  
Air Shot 40Ar/36Ar = **297.3920 ± 0.4312**  
Air Shot MDF = **1.00098314 ± 0.00044843 (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<sup>+</sup>) = **0.580 ± 0.014 E-10 1/a**  
Decay 40K(β<sup>-</sup>) = **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
<b>Age Plateau</b>						
<b>Error Mean</b>		0.49845 ± 0.02728 ± 5.47%	1.51 ± 0.08 ± 5.47%	1.75 3%	96.24 19	0.0291 ± 0.0008
		Full External Error ± 0.11		1.67	2σ Confidence Limit	
		Analytical Error ± 0.08		1.3218	Error Magnification	
<b>Total Fusion Age</b>		0.49258 ± 0.02215 ± 4.50%	1.49 ± 0.07 ± 4.50%		23	0.0293 ± 0.0001
		Full External Error ± 0.10				
		Analytical Error ± 0.07				
<b>Normal Isochron</b>						
<b>Error Chron</b>	296.39 ± 5.50 ± 1.86%	0.51185 ± 0.05185 ± 10.13%	1.55 ± 0.16 ± 10.13%	1.74 3%	96.24 19	
		Full External Error ± 0.18		1.69	2σ Confidence Limit	
		Analytical Error ± 0.16		1.3175	Error Magnification	
<b>Inverse Isochron</b>						
<b>Error Chron</b>	296.21 ± 5.56 ± 1.88%	0.51779 ± 0.05091 ± 9.83%	1.57 ± 0.15 ± 9.83%	1.79 2%	96.24 19	
		Full External Error ± 0.17		1.69	2σ Confidence Limit	
		Analytical Error ± 0.15		1.3378	Error Magnification	
				21%	Spreading Factor	

