

EXP#20F29009 > 108 BRHC 19 > Plagioclase > MCCLAUGHRY (19-20)
HARNEY BASIN > BURNS BUTTE
20-OSU-04 (4B13-20) > Incremental Heating > Dan Miggins

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

Project = **MCCLAUGHRY (19-20)**
Sample = **108 BRHC 19**
Material = **Plagioclase**
Location = **Burns Butte**
Region = **Harney Basin**
Analyst = **Dan Miggins**
Irradiation = **20-OSU-04 (4B13-20)**
Position = **X: 0 | Y: 0 | Z/H: 16.31484 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.35866 ± 0.00449**
FCT-NM J-value = **0.00165894 ± 0.00000080**
Air Shot 40Ar/36Ar = **297.6450 ± 0.4316**
Air Shot MDF = **1.00076953 ± 0.00044805 (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) = **299.83 ± 0.66**
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 = 299.83 ± 0.22 (%SD).

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%n)	K/Ca ± 2σ
Age Plateau		1.21774 ± 0.18864 ± 15.49%	3.69 ± 0.57 ± 15.48%	0.84 66%	89.70 19	0.0194 ± 0.0016
		Full External Error ± 0.60 Analytical Error ± 0.57		1.67 1.0000	2σ Confidence Limit Error Magnification	
Total Fusion Age		1.41777 ± 0.33348 ± 23.52%	4.30 ± 1.01 ± 23.49%		23	0.0195 ± 0.0001
		Full External Error ± 1.03 Analytical Error ± 1.01				
Normal Isochron	300.11 ± 0.80 ± 0.27%	1.15125 ± 0.27522 ± 23.91%	3.49 ± 0.83 ± 23.88%	1.12 33%	89.70 19	
		Full External Error ± 0.85 Analytical Error ± 0.83		1.69 1.0566	2σ Confidence Limit Error Magnification	
Inverse Isochron	300.11 ± 0.80 ± 0.27%	1.15536 ± 0.24734 ± 21.41%	3.51 ± 0.75 ± 21.39%	1.12 33%	89.70 19	
		Full External Error ± 0.77 Analytical Error ± 0.75		1.69 1.0567	2σ Confidence Limit Error Magnification	
				6%	Spreading Factor	

