

**EXP#22F07735 > MLM031A > POLENZ (21-26)**  
**WESTERN CASCADES > SOUTHWESTERN WASHINGTON**  
**22-OSU-01 (1B11-22) > Incremental Heating > Plagioclase > Dan Miggins**

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

Project = **POLENZ (21-26)**  
Sample = **MLM031A**  
Material = **Plagioclase**  
Location = **Southwestern Washington**  
Region = **Western Cascades**  
Analyst = **Dan Miggins**  
Irradiation = **22-OSU-01 (1B11-22)**  
Position = **X: 999 | Y: 999 | Z/H: 18.48214 mm**  
FCT-NM Age = **28.201 ± 0.023 Ma**  
FCT-NM Reference = **Kuiper et al (2008)**  
FCT-NM 40Ar/39Ar Ratio = **9.47202 ± 0.00938**  
FCT-NM J-value = **0.00163909 ± 0.00000162**  
Air Shot 40Ar/36Ar = **299.8740 ± 0.3179**  
Air Shot MDF = **0.99890312 ± 0.00037010 (LIN)**  
Experiment Type = **Incremental Heating**  
Extraction Method = **Bulk Laser Heating**  
Heating = **50 sec**  
Isolation = **6.00 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(total) = **5.463 ± 0.107 E-10 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**  
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**  
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**  
Trapped 40/36(a) = **307.14 ± 3.58**  
Trapped 38/36(a) = **0.1885 ± 0.0003**  
Standard MDF 40/36(a) = **298.56 ± 0.31**  
Standard MDF Reference = **Lee et al 2006**

Excess 40/36 = 307.14 ± 1.17 (%SD).

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%n)	K/Ca ± 2σ
Age Plateau		0.40991 ± 0.00896 ± 2.19%	1.23 ± 0.03 ± 2.19%	1.28 24%	61.38 11	0.0293 ± 0.0006
		Full External Error ± 0.07		1.89	2σ Confidence Limit	
		Analytical Error ± 0.03		1.1292	Error Magnification	
Total Fusion Age		2.12164 ± 0.88813 ± 41.86%	6.38 ± 2.67 ± 41.93%		28	0.0313 ± 0.0000
		Full External Error ± 2.69				
		Analytical Error ± 2.67				
Normal Isochron	307.18 ± 7.03 ± 2.29%	0.40895 ± 0.01465 ± 3.58%	1.23 ± 0.04 ± 3.59%	1.78 7%	61.38 11	
		Full External Error ± 0.08		1.94	2σ Confidence Limit	
		Analytical Error ± 0.04		1.3351	Error Magnification	
Inverse Isochron	307.14 ± 7.16 ± 2.33%	0.41016 ± 0.01489 ± 3.63%	1.23 ± 0.04 ± 3.63%	1.83 6%	61.38 11	
		Full External Error ± 0.08		1.94	2σ Confidence Limit	
		Analytical Error ± 0.04		1.3543	Error Magnification	
				42%	Spreading Factor	

