

EXP#22F06351 > MLM031B > POLENZ (21-26)
WESTERN CASCADES > SOUTHWESTERN WASHINGTON
22-OSU-01 (1B12-22) > Incremental Heating > Groundmass > Dan Miggins

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

Project = **POLENZ (21-26)**
Sample = **MLM031B**
Material = **Groundmass**
Location = **Southwestern Washington**
Region = **Western Cascades**
Analyst = **Dan Miggins**
Irradiation = **22-OSU-01 (1B12-22)**
Position = **X: 999 | Y: 999 | Z/H: 20.79874 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.48955 ± 0.00939**
FCT-NM J-value = **0.00163606 ± 0.00000162**
Air Shot 40Ar/36Ar = **300.0950 ± 0.3601**
Air Shot MDF = **0.99871959 ± 0.00039547 (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 = **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(total) = **5.463 ± 0.107 E-10 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**
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) = **298.56 ± 0.31**
Trapped 38/36(a) = **0.1885 ± 0.0003**
Standard MDF 40/36(a) = **298.56 ± 0.31**
Standard MDF Reference = **Lee et al 2006**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.39776 ± 0.00087 ± 0.22%	1190.8 ± 3.5 ± 0.29%	1.34 19%	54.87 13	0.473 ± 0.057
		Full External Error ± 62.0 Analytical Error ± 2.6		1.82 1.1572	2σ Confidence Limit Error Magnification	
Total Fusion Age		0.40936 ± 0.00090 ± 0.22%	1225.5 ± 3.6 ± 0.30%		28	0.562 ± 0.000
		Full External Error ± 63.8 Analytical Error ± 2.7				
Normal Isochron	296.57 ± 7.04 ± 2.37%	0.39809 ± 0.00153 ± 0.38%	1191.8 ± 5.1 ± 0.43%	1.41 16%	54.87 13	
		Full External Error ± 62.2 Analytical Error ± 4.6		1.85 1.1869	2σ Confidence Limit Error Magnification	
Inverse Isochron	297.51 ± 7.13 ± 2.40%	0.39795 ± 0.00155 ± 0.39%	1191.4 ± 5.2 ± 0.44%	1.45 14%	54.87 13	
		Full External Error ± 62.1 Analytical Error ± 4.6		1.85 1.2055	2σ Confidence Limit Error Magnification Spreading Factor	

