

EXP#22F06244 > MLF057B > POLENZ (21-26)
WESTERN CASCADES > SOUTHWESTERN WASHINGTON
22-OSU-01 (1B3-22) > Incremental Heating > Groundmass > Dan Miggins

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

Project = **POLENZ (21-26)**
Sample = **MLF057B**
Material = **Groundmass**
Location = **Southwestern Washington**
Region = **Western Cascades**
Analyst = **Dan Miggins**
Irradiation = **22-OSU-01 (1B3-22)**
Position = **X: 999 | Y: 999 | Z/H: 4.095325 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.41036 ± 0.00941**
FCT-NM J-value = **0.00164983 ± 0.00000165**
Air Shot 40Ar/36Ar = **300.4950 ± 0.3426**
Air Shot MDF = **0.99838808 ± 0.00038379 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **50 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-F**
Preferred Age = **Mini Plateau**
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 (Ma)	MSWD	39Ar(k) (%n)	K/Ca ± 2σ
Age Plateau		14.33943 ± 0.01969 ± 0.14%	42.80 ± 0.10 ± 0.24%	5.05	29.06	0.411 ± 0.024
Error Mean				0%	4	
				2.63	2σ Confidence Limit	
				2.2466	Error Magnification	
Total Fusion Age		14.12309 ± 0.00626 ± 0.04%	42.16 ± 0.09 ± 0.20%		28	0.319 ± 0.000
Normal Isochron	300.35 ± 42.57 ± 14.17%	14.33316 ± 0.13728 ± 0.96%	42.78 ± 0.41 ± 0.97%	7.69	29.06	
Error Chron				0%	4	
				3.00	2σ Confidence Limit	
				2.7730	Error Magnification	
Inverse Isochron	296.30 ± 42.25 ± 14.26%	14.34662 ± 0.13638 ± 0.95%	42.82 ± 0.41 ± 0.96%	7.62	29.06	
Error Chron				0%	4	
				3.00	2σ Confidence Limit	
				2.7605	Error Magnification	
				3%	Spreading Factor	

