

EXP#22F06034 > MLM112 > POLENZ (21-26)
WESTERN CASCADES > SOUTHWESTERN WASHINGTON
22-OSU-01 (1B19-22) > Incremental Heating > Groundmass > Dan Miggins

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

Project = **POLENZ (21-26)**
Sample = **MLM112**
Material = **Groundmass**
Location = **Southwestern Washington**
Region = **Western Cascades**
Analyst = **Dan Miggins**
Irradiation = **22-OSU-01 (1B19-22)**
Position = **X: 999 | Y: 999 | Z/H: 33.77229 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.62860 ± 0.00944**
FCT-NM J-value = **0.00161244 ± 0.00000158**
Air Shot 40Ar/36Ar = **300.2150 ± 0.3242**
Air Shot MDF = **0.99862004 ± 0.00037325 (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) = **39.00 ± 42.45**
Trapped 38/36(a) = **0.1885 ± 0.0003**
Standard MDF 40/36(a) = **298.56 ± 0.31**
Standard MDF Reference = **Lee et al 2006**

Sub-atmospheric 40/36 = 39.00 ± 108.85 (%SD).

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%n)	K/Ca ± 2σ
Age Plateau		14.01224 ± 0.02885 ± 0.21%	40.90 ± 0.11 ± 0.28% Full External Error ± 2.12 Analytical Error ± 0.08	1.10 36% 1.85 1.0487	65.41 12	1.90 ± 0.74 2σ Confidence Limit Error Magnification
Total Fusion Age		14.89081 ± 0.10968 ± 0.74%	43.43 ± 0.33 ± 0.75% Full External Error ± 2.27 Analytical Error ± 0.32		27	1.65 ± 0.00
Normal Isochron Error Chron	134.93 ± 44.19 ± 32.75%	13.92152 ± 0.06845 ± 0.49%	40.64 ± 0.21 ± 0.52% Full External Error ± 2.11 Analytical Error ± 0.20	74.72 0% 1.89 8.6439	65.41 12	2σ Confidence Limit Error Magnification
Inverse Isochron Error Chron	160.68 ± 37.92 ± 23.60%	13.87850 ± 0.06286 ± 0.45%	40.51 ± 0.20 ± 0.49% Full External Error ± 2.10 Analytical Error ± 0.18	62.55 0% 1.89 7.9087 3%	65.41 12	2σ Confidence Limit Error Magnification Spreading Factor

