

EXP#22F08079 > MLM112 > POLENZ (21-26)
WESTERN CASCADES > SOUTHWESTERN WASHINGTON
22-OSU-01 (1B20-22) > Incremental Heating > Plagioclase > Dan Miggins

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

Project = **POLENZ (21-26)**
Sample = **MLM112**
Material = **Plagioclase**
Location = **Southwestern Washington**
Region = **Western Cascades**
Analyst = **Dan Miggins**
Irradiation = **22-OSU-01 (1B20-22)**
Position = **X: 999 | Y: 999 | Z/H: 35.65074 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.65471 ± 0.00937**
FCT-NM J-value = **0.00160807 ± 0.00000156**
Air Shot 40Ar/36Ar = **300.0270 ± 0.3180**
Air Shot MDF = **0.99877603 ± 0.00036991 (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⁺) = **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		14.45326 ± 0.03453 ± 0.24%	42.06 ± 0.13 ± 0.30% Full External Error ± 2.18 Analytical Error ± 0.10	0.93 49% 2.00 1.0000	60.09 9 2σ Confidence Limit Error Magnification	0.0194 ± 0.0003
Total Fusion Age		14.24763 ± 0.13698 ± 0.96%	41.47 ± 0.40 ± 0.97% Full External Error ± 2.18 Analytical Error ± 0.39		20	0.0197 ± 0.0000
Normal Isochron	302.66 ± 8.75 ± 2.89%	14.41222 ± 0.09337 ± 0.65%	41.94 ± 0.28 ± 0.67% Full External Error ± 2.19 Analytical Error ± 0.27	0.93 48% 2.07 1.0000	60.09 9 2σ Confidence Limit Error Magnification	
Inverse Isochron	302.99 ± 8.75 ± 2.89%	14.40961 ± 0.09343 ± 0.65%	41.93 ± 0.28 ± 0.67% Full External Error ± 2.19 Analytical Error ± 0.27	0.92 49% 2.07 1.0000 18%	60.09 9 2σ Confidence Limit Error Magnification Spreading Factor	

