

**EXP#22F08045 > MLF059 > POLENZ (21-26)**  
**WESTERN CASCADES > SOUTHWESTERN WASHINGTON**  
**22-OSU-01 (1B7-22) > Incremental Heating > Plagioclase > Dan Miggins**

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

Project = **POLENZ (21-26)**  
Sample = **MLF059**  
Material = **Plagioclase**  
Location = **Southwestern Washington**  
Region = **Western Cascades**  
Analyst = **Dan Miggins**  
Irradiation = **22-OSU-01 (1B7-22)**  
Position = **X: 999 | Y: 999 | Z/H: 11.12819 mm**  
FCT-NM Age = **28.201 ± 0.023 Ma**  
FCT-NM Reference = **Kuiper et al (2008)**  
FCT-NM 40Ar/39Ar Ratio = **9.43058 ± 0.00943**  
FCT-NM J-value = **0.00164629 ± 0.00000165**  
Air Shot 40Ar/36Ar = **300.1410 ± 0.3212**  
Air Shot MDF = **0.99868142 ± 0.00037155 (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 = **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) = **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 <b>Overestimated</b>		13.67595 ± 0.04355 ± 0.32%	<b>40.76 ± 0.15 ± 0.37%</b> Full External Error ± 2.11 Analytical Error ± 0.13	0.30 88% 2.41 1.0000	31.87 5 2σ Confidence Limit Error Magnification	0.0226 ± 0.0006
Total Fusion Age		12.90026 ± 0.22051 ± 1.71%	<b>38.47 ± 0.66 ± 1.70%</b> Full External Error ± 2.09 Analytical Error ± 0.65		20	0.0242 ± 0.0000
Normal Isochron	<b>301.59 ± 13.66 ± 4.53%</b>	13.64295 ± 0.15330 ± 1.12%	<b>40.66 ± 0.46 ± 1.13%</b> Full External Error ± 2.15 Analytical Error ± 0.45	0.33 80% 2.63 1.0000	31.87 5 2σ Confidence Limit Error Magnification	
Inverse Isochron	<b>301.54 ± 13.62 ± 4.52%</b>	13.64385 ± 0.15278 ± 1.12%	<b>40.66 ± 0.46 ± 1.12%</b> Full External Error ± 2.15 Analytical Error ± 0.45	0.34 80% 2.63 1.0000	31.87 5 2σ Confidence Limit Error Magnification Spreading Factor	

