

**EXP#22F06306 > MLF061 > POLENZ (21-26)**  
**WESTERN CASCADES > SOUTHWESTERN WASHINGTON**  
**22-OSU-01 (1B8-22) > Incremental Heating > Groundmass > Dan Miggins**

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

Project = **POLENZ (21-26)**  
Sample = **MLF061**  
Material = **Groundmass**  
Location = **Southwestern Washington**  
Region = **Western Cascades**  
Analyst = **Dan Miggins**  
Irradiation = **22-OSU-01 (1B8-22)**  
Position = **X: 999 | Y: 999 | Z/H: 12.80124 mm**  
FCT-NM Age = **28.201 ± 0.023 Ma**  
FCT-NM Reference = **Kuiper et al (2008)**  
FCT-NM 40Ar/39Ar Ratio = **9.43814 ± 0.00944**  
FCT-NM J-value = **0.00164497 ± 0.00000164**  
Air Shot 40Ar/36Ar = **300.3750 ± 0.3124**  
Air Shot MDF = **0.99848744 ± 0.00036595 (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<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) = **169.33 ± 19.74**  
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 = 169.33 ± 11.66 (%SD).

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%n)	K/Ca ± 2σ
Age Plateau		13.89076 ± 0.00935 ± 0.07%	41.36 ± 0.09 ± 0.21%	0.50 89% 1.89 1.0000	69.15 11	2.12 ± 0.09
			Full External Error ± 2.14 Analytical Error ± 0.03		2σ Confidence Limit Error Magnification	
Total Fusion Age		14.69769 ± 0.08496 ± 0.58%	43.73 ± 0.26 ± 0.60%		28	1.69 ± 0.00
			Full External Error ± 2.28 Analytical Error ± 0.25			
Normal Isochron Error Chron	196.17 ± 7.03 ± 3.59%	13.87476 ± 0.00905 ± 0.07%	41.31 ± 0.09 ± 0.21%	2.12 2% 1.94 1.4547	69.15 11	2σ Confidence Limit Error Magnification
			Full External Error ± 2.14 Analytical Error ± 0.03			
Inverse Isochron Error Chron	198.73 ± 6.75 ± 3.40%	13.87083 ± 0.00869 ± 0.06%	41.30 ± 0.09 ± 0.21%	1.95 4% 1.94 1.3961	69.15 11	2σ Confidence Limit Error Magnification Spreading Factor
			Full External Error ± 2.14 Analytical Error ± 0.03			

