

EXP#24G01371 > EVM022 > POLENZ (23-28)
WESTERN CASCADES > EATONVILLE PUBLIC LIBRARY
23-OSU-06 (6A36-23) > Incremental Heating > Groundmass > Dan Miggins

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

Project = **POLENZ (23-28)**
Sample = **EVM022**
Material = **Groundmass**
Location = **Eatonville Public Library**
Region = **Western Cascades**
Analyst = **Dan Miggins**
Irradiation = **23-OSU-06 (6A36-23)**
Position = **X: 0 | Y: 0 | Z/H: 56.44064 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **10.02480 ± 0.01955**
FCT-NM J-value = **0.00154871 ± 0.00000302**
Air Shot 40Ar/36Ar = **298.0810 ± 0.3875**
Air Shot MDF = **1.00040226 ± 0.00041741 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **50 sec**
Isolation = **3.00 min**
Instrument = **ARGUS-VI-G**
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		12.31921 ± 0.04752 ± 0.39%	34.59 ± 0.19 ± 0.54%	2.49 1%	17.23 9	0.114 ± 0.015
Error Mean			Full External Error ± 1.80 Analytical Error ± 0.13	2.00 1.5788	2σ Confidence Limit Error Magnification	
Total Fusion Age		13.95489 ± 0.01011 ± 0.07%	39.14 ± 0.15 ± 0.39%		32	0.284 ± 0.000
			Full External Error ± 2.03 Analytical Error ± 0.03			
Normal Isochron	293.96 ± 2.89 ± 0.98%	12.47750 ± 0.10388 ± 0.83%	35.04 ± 0.32 ± 0.91%	1.25 27%	17.23 9	
			Full External Error ± 1.84 Analytical Error ± 0.29	2.07 1.1192	2σ Confidence Limit Error Magnification	
Inverse Isochron	293.93 ± 2.90 ± 0.99%	12.47868 ± 0.10416 ± 0.83%	35.04 ± 0.32 ± 0.91%	1.26 27%	17.23 9	
			Full External Error ± 1.84 Analytical Error ± 0.29	2.07 1.1204	2σ Confidence Limit Error Magnification Spreading Factor	

