

EXP#24G01760 > EVM047A > POLENZ (23-28)
WESTERN CASCADES > EAST SHORE OF ALDER LAKE
23-OSU-06 (6A33-23) > Incremental Heating > Plagioclase > Dan Miggins

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

Project = **POLENZ (23-28)**
Sample = **EVM047A**
Material = **Plagioclase**
Location = **East shore of Alder Lake**
Region = **Western Cascades**
Analyst = **Dan Miggins**
Irradiation = **23-OSU-06 (6A33-23)**
Position = **X: 0 | Y: 0 | Z/H: 51.87818 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.91367 ± 0.01130**
FCT-NM J-value = **0.00156607 ± 0.00000179**
Air Shot 40Ar/36Ar = **298.2630 ± 0.3520**
Air Shot MDF = **1.00024926 ± 0.00039412 (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		13.11145 ± 0.06851 ± 0.52%	37.21 ± 0.21 ± 0.56%	0.58 84%	59.23 12	0.0088 ± 0.0003
			Full External Error ± 1.94 Analytical Error ± 0.19	1.85 1.0000	2σ Confidence Limit Error Magnification	
Total Fusion Age		12.88074 ± 0.08486 ± 0.66%	36.56 ± 0.25 ± 0.69%		32	0.0091 ± 0.0000
			Full External Error ± 1.91 Analytical Error ± 0.24			
Normal Isochron	297.88 ± 5.50 ± 1.85%	13.11965 ± 0.11797 ± 0.90%	37.23 ± 0.34 ± 0.92%	0.67 76%	59.23 12	
			Full External Error ± 1.96 Analytical Error ± 0.33	1.89 1.0000	2σ Confidence Limit Error Magnification	
Inverse Isochron	297.74 ± 5.52 ± 1.85%	13.12644 ± 0.11856 ± 0.90%	37.25 ± 0.34 ± 0.92%	0.63 79%	59.23 12	
			Full External Error ± 1.96 Analytical Error ± 0.33	1.89 1.0000	2σ Confidence Limit Error Magnification Spreading Factor	

