

EXP#24G02143 > EVM075 > POLENZ (23-28)
WESTERN CASCADES > EAST SHORE OF ALDER LAKE
23-OSU-06 (6A29-23) > Incremental Heating > Clinopyroxene > Daniel Heaton

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

Project = **POLENZ (23-28)**
Sample = **EVM075**
Material = **Clinopyroxene**
Location = **East Shore of Alder Lake**
Region = **Western Cascades**
Analyst = **Daniel Heaton**
Irradiation = **23-OSU-06 (6A29-23)**
Position = **X: 0 | Y: 0 | Z/H: 45.13192 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.77116 ± 0.01133**
FCT-NM J-value = **0.00158891 ± 0.00000184**
Air Shot 40Ar/36Ar = **297.8610 ± 0.4021**
Air Shot MDF = **1.00058744 ± 0.00042759 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **50 sec**
Isolation = **3.00 min**
Instrument = **ARGUS-VI-G**
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⁺) = **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		10.38706 ± 0.97340 ± 9.37%	29.96 ± 2.79 ± 9.30% Full External Error ± 3.19 Analytical Error ± 2.79	0.83 67% 1.67 1.0000	96.36 19 2σ Confidence Limit Error Magnification	0.0138 ± 0.0076
Total Fusion Age		10.00313 ± 1.26323 ± 12.63%	28.87 ± 3.62 ± 12.53% Full External Error ± 3.91 Analytical Error ± 3.62		24	0.0001 ± 0.0000
Normal Isochron	297.94 ± 4.95 ± 1.66%	10.68548 ± 1.83286 ± 17.15%	30.82 ± 5.24 ± 17.01% Full External Error ± 5.48 Analytical Error ± 5.24	0.94 52% 1.69 1.0000	96.36 19 2σ Confidence Limit Error Magnification	
Inverse Isochron	297.95 ± 4.93 ± 1.66%	10.78009 ± 1.75505 ± 16.28%	31.09 ± 5.02 ± 16.14% Full External Error ± 5.27 Analytical Error ± 5.02	0.96 50% 1.69 1.0000	96.36 19 2σ Confidence Limit Error Magnification Spreading Factor	

