

**EXP#24G01597 > EVC021 > POLENZ (23-28)**  
**WESTERN CASCADES > SR7 NE OF LAGRANDE DAM**  
**23-OSU-06 (6A37-23) > Incremental Heating > Plagioclase > Dan Miggins**

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

Project = POLENZ (23-28)  
Sample = EVC021  
Material = Plagioclase  
Location = SR7 NE of LaGrande dam  
Region = Western Cascades  
Analyst = Dan Miggins  
Irradiation = 23-OSU-06 (6A37-23)  
Position = X: 0 | Y: 0 | Z/H: 58.14832 mm  
FCT-NM Age = 28.201 ± 0.023 Ma  
FCT-NM Reference = Kuiper et al (2008)  
FCT-NM 40Ar/39Ar Ratio = 10.06493 ± 0.01137  
FCT-NM J-value = 0.00154253 ± 0.00000174  
Air Shot 40Ar/36Ar = 297.8240 ± 0.3663  
Air Shot MDF = 1.00061861 ± 0.00040420 (LIN)  
Experiment Type = Incremental Heating  
Extraction Method = Bulk Laser Heating  
Heating = 50 sec  
Isolation = 3.00 min  
Instrument = ARGUS-VI-G  
Preferred Age = Inverse Isochron  
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) = 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		13.61197 ± 0.03594 ± 0.26%	38.04 ± 0.13 ± 0.34%	4.17	53.95	0.078 ± 0.009
Error Mean				0%	13	
			Full External Error ± 1.97	1.82	2σ Confidence Limit	
			Analytical Error ± 0.10	2.0417	Error Magnification	
Total Fusion Age		13.72616 ± 0.01684 ± 0.12%	38.35 ± 0.10 ± 0.25%		32	0.072 ± 0.000
			Full External Error ± 1.99			
			Analytical Error ± 0.05			
Normal Isochron	301.12 ± 4.30 ± 1.43%	13.56541 ± 0.08502 ± 0.63%	37.91 ± 0.25 ± 0.66%	4.14	53.95	
Error Chron				0%	13	
			Full External Error ± 1.98	1.85	2σ Confidence Limit	
			Analytical Error ± 0.24	2.0343	Error Magnification	
Inverse Isochron	301.11 ± 4.32 ± 1.43%	13.56704 ± 0.08527 ± 0.63%	37.91 ± 0.25 ± 0.66%	4.16	53.95	
Error Chron				0%	13	
			Full External Error ± 1.98	1.85	2σ Confidence Limit	
			Analytical Error ± 0.24	2.0390	Error Magnification	
				30%	Spreading Factor	

