

# EXP#23F01486 > BHF033 > POLENZ (22-26)

## 9.552 > NW1/4

### 22-OSU-05 (5C34-22) > Incremental Heating > Groundmass > Dan Miggins

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

Project = POLENZ (22-26)  
Sample = BHF033  
Material = Groundmass  
Location = NW1/4  
Region = 9.552  
Analyst = Dan Miggins  
Irradiation = 22-OSU-05 (5C34-22)  
Position = X: 999 | Y: 999 | Z/H: 52.9024 mm  
FCT-NM Age = 28.201 ± 0.023 Ma  
FCT-NM Reference = Kuiper et al (2008)  
FCT-NM 40Ar/39Ar Ratio = 9.88218 ± 0.00939  
FCT-NM J-value = 0.00157106 ± 0.00000149  
Air Shot 40Ar/36Ar = 304.4140 ± 0.4688  
Air Shot MDF = 0.99518619 ± 0.00045622 (LIN)  
Experiment Type = Incremental Heating  
Extraction Method = Bulk Laser Heating  
Heating = 50 sec  
Isolation = 6.00 min  
Instrument = ARGUS-VI-F  
Preferred Age = Mini Plateau  
Age Classification = Eruption Age  
IGSN = T16N R03E  
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		13.13898 ± 0.01390 ± 0.11%	37.40 ± 0.08 ± 0.22%	2.05 7%	49.19 6	0.567 ± 0.237
			Full External Error ± 1.94	2.26	2σ Confidence Limit	
			Analytical Error ± 0.04	1.4315	Error Magnification	
Total Fusion Age		13.00668 ± 0.00719 ± 0.06%	37.03 ± 0.07 ± 0.20%		25	0.263 ± 0.000
			Full External Error ± 1.92			
			Analytical Error ± 0.02			
Normal Isochron	295.36 ± 3.25 ± 1.10%	13.17856 ± 0.04209 ± 0.32%	37.51 ± 0.14 ± 0.37%	1.48 20%	49.19 6	
			Full External Error ± 1.94	2.41	2σ Confidence Limit	
			Analytical Error ± 0.12	1.2177	Error Magnification	
Inverse Isochron	295.25 ± 3.26 ± 1.10%	13.17999 ± 0.04212 ± 0.32%	37.52 ± 0.14 ± 0.37%	1.48 20%	49.19 6	
			Full External Error ± 1.95	2.41	2σ Confidence Limit	
			Analytical Error ± 0.12	1.2169	Error Magnification	
				14%	Spreading Factor	

