

Table 1. Ar/Ar Summary Table

Sample	L#	Irrad	Material	Preferred Age						
				Type	N	MSWD	K/Ca	± 1σ	Age	± 1σ
MB06-615	56958	NM-205E 5	GMC	Plateau	4	0.2	0.0337	0.0003	8.9754	0.1705
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L# = Lab number, Irrad = Irradiation number and tray letter, n = number of analyses use to compute age, MSWD = Mean Square Weighted Deviation Kaer= kaersutite phenocrysts, Glass= basaltic glass shard concentrate, GM= grondmass concentrate, San/An= sanidine and/or anorthoclase phenocrysts

Notes:

Sample preparation and irradiation:

Basaltic glass shard samples were separated by extensive washing with water followed by an ultrasonic water bath. Sieved and washed samples were processed in magnetic separator and hand picked to remove additional contaminants. Groundmass concentrates were separated by mechanical crushing and sieving, followed by magnetic separation to remove phenocrysts, a 5-10 min HCl acid bath, a finally hand picked to ensure sample homogeneity Feldspar phenocrysts (85-01, 481.80-01, 1277.91-01, 1278.84-01, 1279.00-01) and kaersutite phenocrysts (822.78B), were hand picked using a binocular microscope. Samples treated with acid were immersed in 10% HCl or 15% HF in an ultrasonic bath, followed by ultrasonic rinsing with distilled water to remove the residual acid. All samples and neutron flux monitors were loaded into machined Al discs in a known geometry Neutron flux monitor Fish Canyon Tuff sanidine (FC-2). Assigned age = 28.02 Ma (Renne et al, 1998)

Instrumentation:

Mass Analyzer Products 215-50 mass spectrometer on line with automated all-metal extraction system. Samples step-heated using a Mo double-vacuum resistance furnace or defocused CO2 laser. Heating duration in the furnace and laser were 10 min and 30 sec, respectively. Reactive gases removed during analysis by reaction with 3 SAES GP-50 getters, 2 operated at ~450°C and 1 at 20°C. Gas also exposed to a W filament operated at ~2000°C.

Analytical parameters:

Averaged furnace sensitivity 1.24x10⁻¹⁶ mol/pA. Averaged laser sensitivity 7.12x10⁻¹⁷ mol/pA Total system blank and background for the furnace averaged 5017, 5.6, 6.5, 29.1, 7.8, 21.7 x 10⁻¹⁶ moles. Total system blank and background for the laser averaged 376, 5.3, 1.9, 5.6, 7.8, 29.7 x 10⁻¹⁶ moles. J-factors determined to a precision of ± 0.1% by CO2 laser-fusion of 4 to 6 single crystals from each of the 6 or 10 radial positions around the irradiation tray (6 for a 12 hole disc, 10 for a 20 hole disc). Correction factors for interfering nuclear reactions were determined using K-glass and CaF2 and are as follows: (Ar/ Ar)_K = 0 ±0.0004; (Ar/ Ar)_{Ca} = 0.000289±0.000005; and (Ar/ Ar)_{Ca} = 0.00068±0.00002

Age calculations:

Plateau age or preferred age calculated for the indicated steps by weighting each step by the inverse of the variance. Plateau age error is inverse-variance-weighted mean error (Taylor, 1982) times root MSWD where MSWD>1. MSWD values are calculated for n-1 degrees of freedom for plateau age. Isochron ages, Ar/ Ar and MSWD values calculated from regression results obtained by the methods of York (1969). Decay constants and isotopic abundances after Steiger and Jäger (1977). All errors reported at ±2σ, unless otherwise noted.