

Appendix I

K/Ar age determinations of volcanic rocks on Nakodojima Island (NN4), on the junction of the Shichito Ridge and the West Mariana Ridge (D326) and on the northern Mariana Ridge (D327), by Geochronometry Section, Teledyne Isotopes.

Sample	Rock	Isotope Age (m.y.)	scc Ar 40Rad/gm $\times 10^{-5}$	% Ar 40Rad	% K
NN4	Clinopyroxene-	27.0 \pm 1.4	0.059	58.6	0.573
	orthopyroxene andesite		0.062	40.0	0.577
D326-2	Hypersthene-	4.1 \pm 0.2	0.012	28.1	0.780
	augite andesite		0.013	20.6	0.783
D327-2	Augite	11.4 \pm 0.6	0.022	29.8	0.495
	andesite		0.022	31.8	0.497

The analysis was performed on whole rock material.

The constants for the age calculation are:

$$= 4.962 \times 10^{-10} \text{ yr}^{-1}, = 0.581 \times 10^{-10} \text{ yr}^{-1}, K^{40} = 1.167 \times 10^{-4}$$

atom per atom of natural potassium. (Convention on decay constants, Subcommittee on Geochronology, 25th International Geological Congress, 1976.)