

Sr-isotope initial ratios from the Engle Basin volcanics, south-central New Mexico

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SR ISOTOPE INITIAL RATIOS FROM THE ENGLE BASIN VOLCANICS, SOUTH-CENTRAL NEW MEXICO

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We report the initial Sr isotope ratios for five samples ranging from inclusion-rich basalts from the Engle Basin, south-central New Mexico.

All $^{87}\text{Sr}/^{86}\text{Sr}$ data have been normalized to $^{86}\text{Sr}/^{88}\text{Sr} = 0.1194$.

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DISCUSSION

The rocks were selected to represent various abundances and varieties of mafic to ultramafic inclusions in basaltic matrix; these samples have been described in detail by Warren (1978).

SAMPLE DESCRIPTIONS

1. UNM-RGW-BB-1

Basalt; with variable amounts of mafic and ultramafic inclusions, some with K_2O -rich plagioclase ($107^\circ 08' 55''\text{W}$, $33^\circ 16' 38''\text{N}$; Sierra Co., NM). *Collected by:* R. G. Warren; *data from:* UNM Geochronology Lab.

(whole rock) $^{87}\text{Sr}/^{86}\text{Sr}$ initial ratio = 0.7051

2. UNM-RGW-BM-4

Basalt; with variable amounts of mafic and ultramafic inclusions ($107^\circ 08' 23''\text{W}$, $33^\circ 18' 28''\text{N}$; Sierra Co., NM). *Collected by:* R. G. Warren; *data from:* UNM Geochronology Lab.

(whole rock) $^{87}\text{Sr}/^{86}\text{Sr}$ initial ratio = 0.7057

3. UNM-RGW-BB-3

Basalt; with some mafic and ultramafic inclusions ($107^\circ 08' 15''\text{W}$, $33^\circ 16' 21''\text{N}$; Sierra Co., NM). *Collected by:* R. G. Warren; *data from:* UNM Geochronology Lab.

(whole rock) $^{87}\text{Sr}/^{86}\text{Sr}$ initial ratio = 0.7042

4. UNM-RGW-CH-7

Basalt; with variable amounts of mafic and ultramafic inclusions; some with K_2O -rich plagioclase ($107^\circ 08' 01''\text{W}$, $33^\circ 21' 25''\text{N}$; Sierra Co., NM). *Collected by:* R. G. Warren; *data from:* UNM Geochronology Lab.

(whole rock) $^{87}\text{Sr}/^{86}\text{Sr}$ initial ratio = 0.7044

5. UNM-RGW-MP-7

Basalt; with abundant inclusions of ultramafic and mafic material; some with K_2O -rich plagioclase ($107^\circ 11' 35''\text{W}$, $33^\circ 24' 47''\text{N}$; Sierra Co., NM). *Collected by:* R. G. Warren; *data from:* UNM Geochronology Lab.

(whole rock) $^{87}\text{Sr}/^{86}\text{Sr}$ initial ratio = 0.7073

REFERENCE

Warren, R. G. (1978) Characterization of the lower crust-upper mantle of the Engle Basin, Rio Grande Rift, from a petrochemical and field geologic study of basalts and their inclusions: M.S. Thesis, Univ. New Mexico (Geology Dept.), 156 p.

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