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

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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°08'55"W, 33°16'38"N; Sierra Co., NM). *Collected by:* R. G. Warren; *data from:* UNM Geochronology Lab.
   (whole rock) $^{87}Sr/^{86}Sr$ initial ratio = 0.7051

2. *UNM-RGW-BM-4*
   Basalt; with variable amounts of mafic and ultramafic inclusions (107°08'23"W, 33°18'28"N; Sierra Co., NM). *Collected by:* R. G. Warren; *data from:* UNM Geochronology Lab.
   (whole rock) $^{87}Sr/^{86}Sr$ initial ratio = 0.7057

3. *UNM-RGW-BB-3*
   Basalt; with some mafic and ultramafic inclusions (107°08'15"W, 33°16'21"N; Sierra Co., NM). *Collected by:* R. G. Warren; *data from:* UNM Geochronology Lab.
   (whole rock) $^{87}Sr/^{86}Sr$ 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°08'01"W, 33°21'25"N; Sierra Co., NM). *Collected by:* R. G. Warren; *data from:* UNM Geochronology Lab.
   (whole rock) $^{87}Sr/^{86}Sr$ 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°11'35"W, 33°24'47"N; Sierra Co., NM). *Collected by:* R. G. Warren; *data from:* UNM Geochronology Lab.
   (whole rock) $^{87}Sr/^{86}Sr$ 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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