

## ***Sr isotope initial ratios from the Taos volcanic field, northern New Mexico***

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Isochron/West, Bulletin of Isotopic Geochronology, v. 27, pp. 31-32

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**ISOCHRON/WEST**  
*A Bulletin of Isotopic Geochronology*

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## SR ISOTOPE INITIAL RATIOS FROM THE TAOS VOLCANIC FIELD, NORTHERN NEW MEXICO

D. G. BROOKINS }  
C. J. ZIMMERMAN } Department of Geology, University of New Mexico, Albuquerque, NM 87131

We report initial Sr isotope ratios for six samples ranging from basalt to andesite in composition from the Taos volcanic field, northern New Mexico.

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

We acknowledge partial financial support from U.S.G.S. Grant 14-08-0001-G-348.

### DISCUSSION

The rocks were collected from the Taos volcanic field, northern New Mexico as part of a study of basalts and andesites presumed to be associated with the Rio Grande Rift. Separately, a report indicates a systematic variation of high initial  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios with increasing  $\text{SiO}_2$  content, thus suggestive of crustal contamination (Zimmerman and Kudo, 1979; Brookins and Eppler, 1977).

### SAMPLE DESCRIPTIONS

#### 1. UNM-CZ-T0-3

Porphyritic, vesicular, fine grained to aphanitic andesite ( $105^\circ 48' 50''\text{W}$ ,  $36^\circ 25' 15''\text{N}$ ; Taos Co., NM). *Collected by:* C. J. Zimmerman; *data from:* UNM Geochronology Lab.

(whole rock)  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio = 0.7045

#### 2. UNM-CZ-BM-1

Porphyritic, fine- to coarse-grained andesite ( $105^\circ 44' 45''\text{W}$ ,  $36^\circ 43' 00''\text{N}$ ; Taos Co., NM). *Collected by:* C. J. Zimmerman; *data from:* UNM Geochronology Lab.

(whole rock)  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio = 0.7059

#### 3. UNM-CZ-U-3

Fine grained, glassy basalt ( $105^\circ 40' 50''\text{W}$ ,  $36^\circ 56' 00''\text{N}$ ; Taos Co., NM). *Collected by:* C. J. Zimmerman; *data from:* UNM Geochronology Lab.

(whole rock)  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio = 0.7063

#### 4. UNM-CZ-CCW-1

Flow banded, porphyritic, fine- to medium-grained andesite ( $105^\circ 42' 40''\text{W}$ ,  $36^\circ 44' 35''\text{N}$ ; Taos Co., NM). *Collected by:* C. J. Zimmerman; *data from:* UNM Geochronology Lab.

(whole rock)  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio = 0.7054

#### 5. UNM-CZ-G-1

Vesicular, aphanitic basalt ( $105^\circ 40' 00''\text{W}$ ,  $36^\circ 42' 55''\text{N}$ ; Taos Co., NM). *Collected by:* C. J. Zimmerman; *data from:* UNM Geochronology Lab.

(whole rock)  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio = 0.7060

#### 6. UNM-CZ-C-1

Fine grained, porphyritic, aphanitic, vesicular basaltic andesite ( $105^\circ 47' 35''\text{W}$ ,  $36^\circ 45' 25''\text{N}$ ; Taos Co., NM). *Collected by:* C. J. Zimmerman; *data from:* UNM Geochronology Lab.

(whole rock)  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio = 0.7076

### REFERENCES

- Brookins, D. G. and Eppler, Dean (1977) Sr isotope initial ratios from the San Antonio Mountain Area, New Mexico: *Isochron/West*, no. 20, p. 17.
- Zimmerman, Charles J., and Kudo, A. M. (1979) *Geochemistry of andesites and related rocks, Rio Grande Rift, New Mexico: Internat. Symposium Rio Grande Rift (in press, 1979).*

NEW MEXICO TECH PRINT PLANT  
Camera-ready copy provided by the Nevada  
Bureau of Mines and Geology  
Presswork: Text and cover printed on Davidson 600  
Paper: Body on 60-lb white offset; cover on 65-lb  
Russett  
Ink: Van Son rubber base plus all-purpose black