

## ***Sr isotope initial ratios from the San Antonio Mountain area, New Mexico***

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## SR ISOTOPE INITIAL RATIOS FROM THE SAN ANTONIO MOUNTAIN AREA, NEW MEXICO

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We report initial Sr isotope ratios for five samples ranging from alkali basalt to rhyolite from the San Antonio Mountain area, 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 reported here were collected from an area in the northern Rio Grande rift about 50 km northwest of Taos, New Mexico (Eppler, 1976). San Antonio Mountain, a broad shield-shaped volcano consists of numerous flows of latite and an overlapping andesite center. The rhyolitic Agua Dome Complex and Wismath crater, a broad lava cave, lie southeast of San Antonio Mountain. The rocks intertongue with the upper part of the tholeiitic Servilleta Formation (3.6 to 4.5 m.y.; Ozima and others, 1967; Lipman and Mehnert, 1975). Sample No. 1 is tholeiite from the Servilleta Formation, No. 2 is the earliest rock from the vicinity of San Antonio Mountain and has alkalic affinities. Nos. 3, 4, and 5 have calc-alkalic affinities and are listed in order of increasing  $\text{SiO}_2$  content. Chemical analyses of these rocks were listed by Naert (1974) and Eppler (1976); their genesis was discussed by Lipman and Mehnert (1975).

### SAMPLE DESCRIPTIONS

1. UNM-DE-440  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio:  
0.7048 (whole rock)  
Tholeiite, Servilleta Fm. ( $105^\circ 59' 45''\text{W}$ ,  $36^\circ 52' 30''\text{N}$ ; Taos Co., NM). Collected by: D. Eppler;  
data from: UNM Geochronology Lab.
2. UNM-DE-327  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio:  
0.7032 (whole rock)  
Alkali basalt, Wismath crater ( $105^\circ 57' 30''\text{W}$ ,  $36^\circ 49' 45''\text{N}$ ; Taos Co., NM). Collected by: D. Eppler;  
data from: UNM Geochronology Lab.

3. UNM-DE-80-R  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio:  
0.7036 (whole rock)  
Andesite, San Antonio Mountain ( $105^\circ 58' 30''\text{W}$ ,  $36^\circ 54' 15''\text{N}$ ; Rio Arriba Co., NM). Collected by: D. Eppler; data from: UNM Geochronology Lab.
4. UNM-DE-19  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio:  
0.7075 (whole rock)  
Latite, San Antonio Mountain ( $105^\circ 59' 30''\text{W}$ ,  $36^\circ 50' 45''\text{N}$ ; Rio Arriba Co., NM). Collected by: D. Eppler; data from: UNM Geochronology Lab.
5. UNM-DE-5  $^{87}\text{Sr}/^{86}\text{Sr}$  initial ratio:  
0.7070 (whole rock)  
Rhyolite, No Agua Dome Complex ( $106^\circ 57' 35''\text{W}$ ,  $36^\circ 45' 00''\text{N}$ ; Taos Co., NM). Collected by: D. Eppler; data from: UNM Geochronology Lab.

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