

**71156****High-Ti Mare Basalt****5.42 g, 2.2 x 1.5 x 1 cm****INTRODUCTION**

71156 (Fig. 1) was described as medium dark gray, intergranular, homogeneous basalt (Apollo 17 Lunar Sample Information Catalog, 1973). It contains many zap pits on all surfaces, except T. Approximately 1-2% vugs are present, all 1mm in diameter. This basalt has a blocky, subrounded shape with "lumpy" surfaces except T which is smooth. 71156 was collected from Station IA.

**PETROGRAPHY AND MINERAL CHEMISTRY**

The petrography and mineral chemistry of 71156 was

described by Warner et al. (1979), but within the general confines of their whole-rock classification. Consequently, this basalt was not specifically mentioned. No thin section of 71156 was available for our study during the preparation of this catalog.

**WHOLE-ROCK CHEMISTRY**

Ma et al. (1979) and Warner et al. (1979) reported the same whole-rock analysis for 71156 (Table 1). Warner et al. (1979) classified 71156 as a Type A Apollo 17 high-Ti basalt, containing 12.3 wt% TiO<sub>2</sub> (Table 1) with a MG# of 43.5. The REE profile is LREE-depleted, with

HREE abundances approximately constant at 40-45 times chondritic values (Fig. 2). A negative Eu anomaly is present ( $[Eu/Eu^*]_N = 0.53$ ).

**PROCESSING**

Of the original 5.42g of 71156,0, a total of 5.11 g remains. 71156,1 was irradiated for INAA, and thin section 71156,4 was taken from this sub-sample.

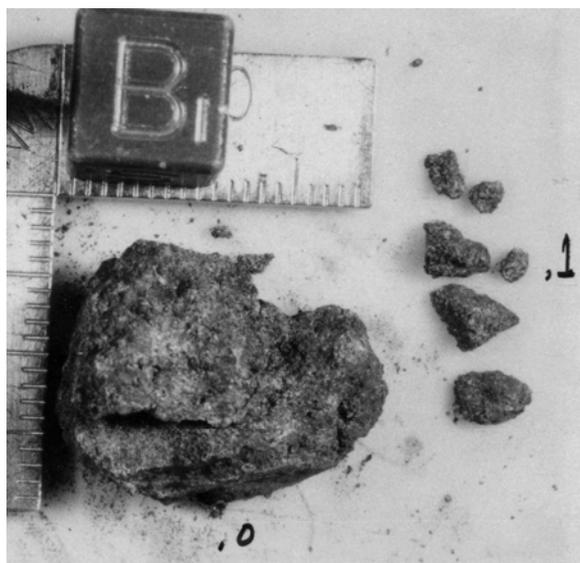


Figure 1: Hand specimen photograph of 71156,0, bottom surface, and 71156,1. Cubic scale = 1 cm<sup>3</sup>.

**Table 1: Whole-rock chemistry of 71156.**  
 Data from Ma et al. (1979) and Warner et al. (1979) (same analysis).

	71156,1 N		71156,1 N
SiO <sub>2</sub> (wt %)		Cu	
TiO <sub>2</sub>	12.3	Ni	
Al <sub>2</sub> O <sub>3</sub>	8.7	Co	18
Cr <sub>2</sub> O <sub>3</sub>	0.435	V	103
FeO	18.5	Sc	79
MnO	0.242	La	6.6
MgO	8	Ce	25
CaO	10.4	Nd	27
Na <sub>2</sub> O	0.395	Sm	10.4
K <sub>2</sub> O	0.068	Eu	2.01
P <sub>2</sub> O <sub>5</sub>		Gd	
S		Tb	2.7
Nb (ppm)		Dy	18
Zr		Er	
Hf	8.8	Yb	9.9
Ta	2.0	Lu	1.39
U		Ga	
Th		F	
W		Cl	
Y		C	
Sr		N	
Rb		H	
Li		He	
Ba		Ge (ppb)	
Cs		Ir	
Be		Au	
Zn		Eu	
Pb		Os	

Analysis by: N = INAA.

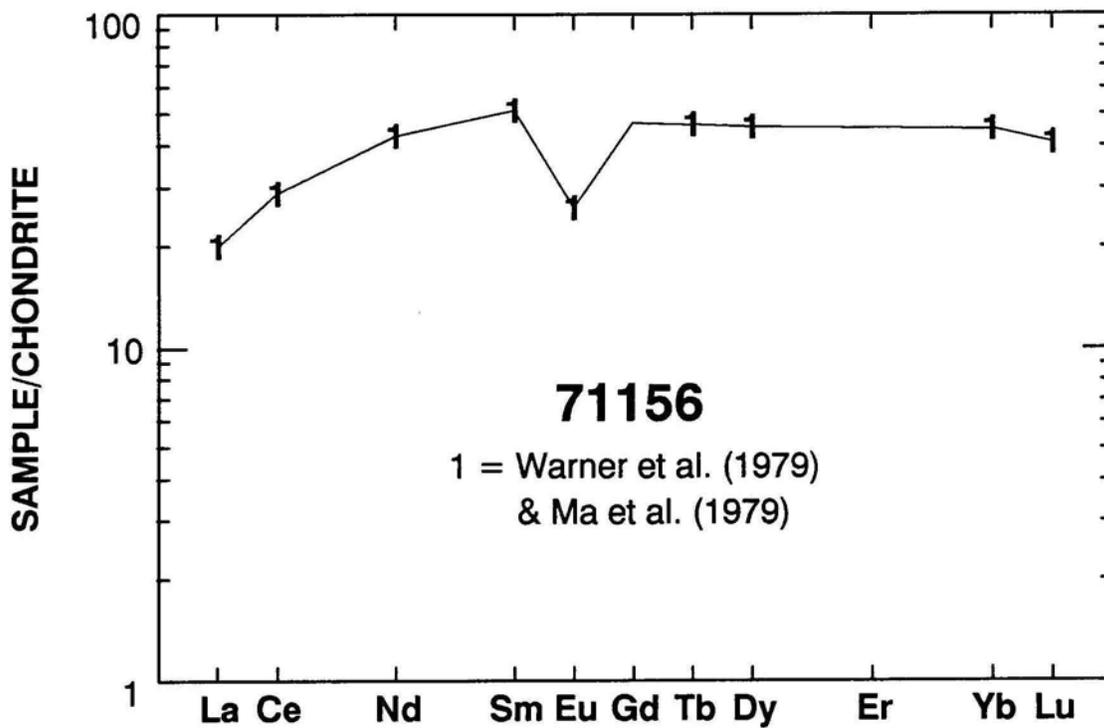


Figure 2: Chondrite -normalized rare earth element plots for 71156. The same analysis was reported by Ma et al. (1979) and Warner et al. (1979).