

**78589****High-Ti Mare Basalt****4.10 g, 1.8 x 1.4 x 1.2 cm****INTRODUCTION**

Sample 78589 is a dark grey, fine-grained mare basalt from the large rake sample at Station 8 (Fig. 1).

**PETROGRAPHY**

Warner et al. (1978f) describe the texture of 78589 as predominantly very fine-grained, with subequant

sometimes skeletal, olivine and skeletal, often acicular, ilmenite microphenocrysts in a, variolitic groundmass (Fig. 2).

**MINERAL CHEMISTRY**

Warner et al. (1978f) have determined the chemical compositions of the minerals in 78589 (Fig. 3).

**WHOLE-ROCK CHEMISTRY**

Murali et al. (1977b) have reported the chemical composition of 78589 (Table 1 and Fig. 4). The analysis for Ce needs to be checked.



Figure 1: Photograph of 78589. Scale is 1 cm. S73-21024.

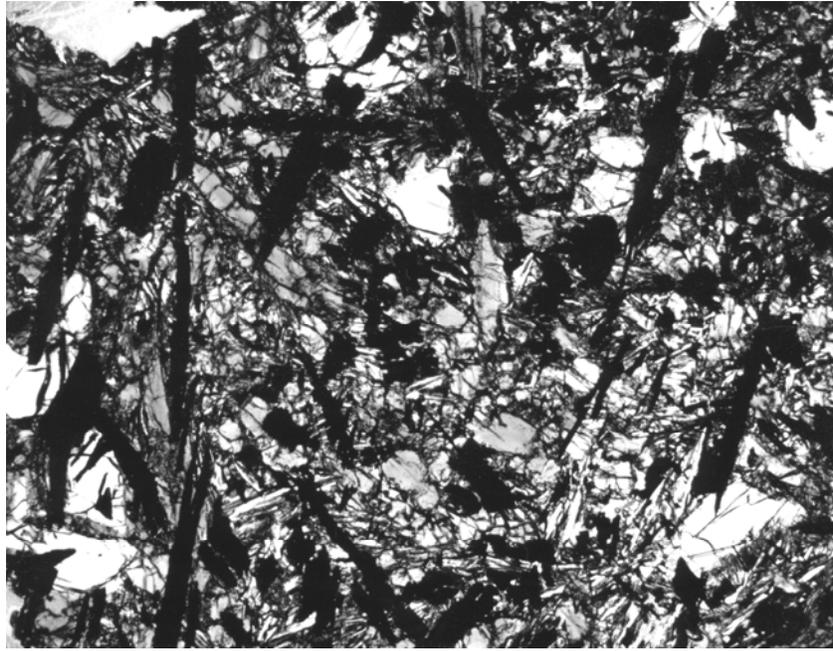


Figure 2: Photomicrograph of thin section 785,49,5. Field of view is 3 x 4 mm.

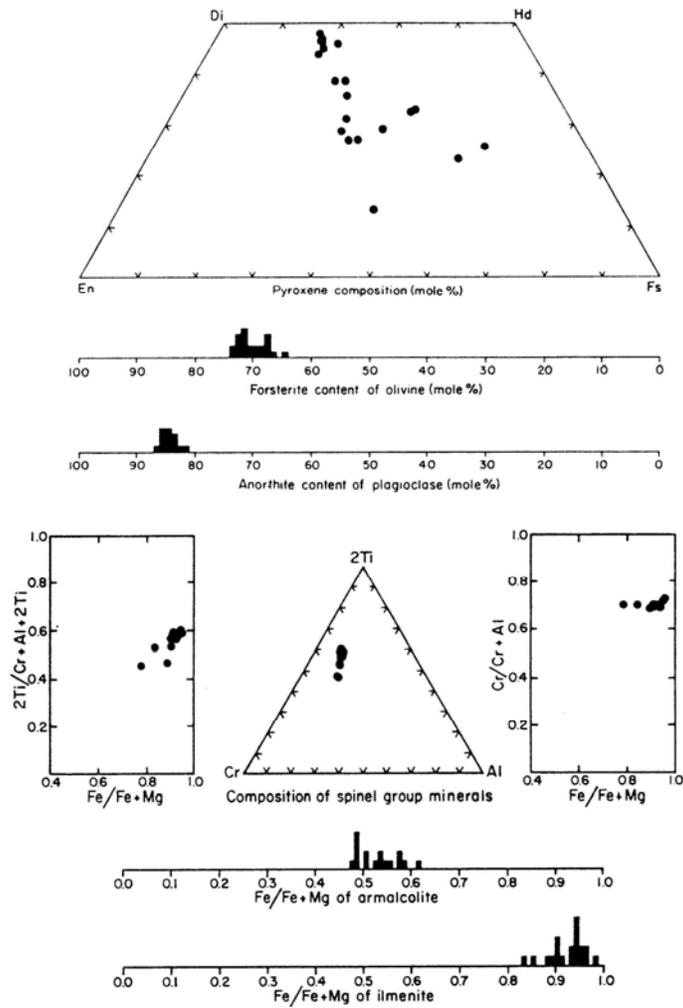


Figure 3: Mineral compositions for 78589. From Warner et al. (1978f).

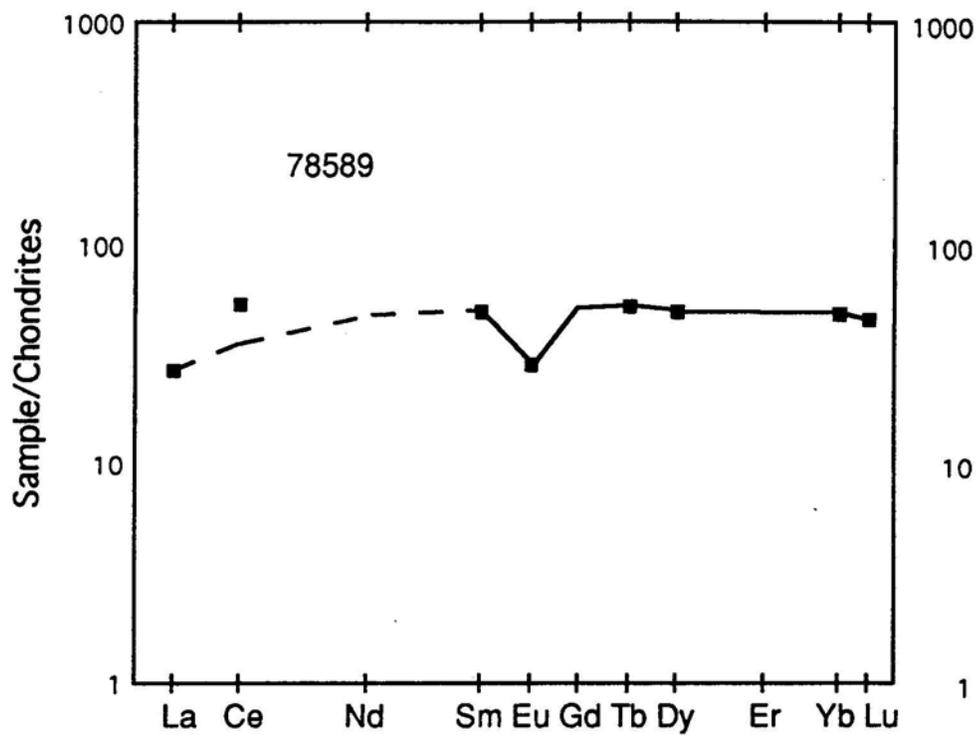


Figure 4: Normalized rare earth element diagram of 78589. Data from Murali et al. (1977b).

**Table 1: Whole-rock chemistry of 78589.**  
From Murali et al. (1977b).

<b>Split Technique</b>	<b>,1 INAA</b>
SiO <sub>2</sub> (wt%)	–
TiO <sub>2</sub>	12.6
Al <sub>2</sub> O <sub>3</sub>	9.2
Cr <sub>2</sub> O <sub>3</sub>	0.324
FeO	20.4
MnO	0.25
MgO	7.9
CaO	11.4
Na <sub>2</sub> O	0.4
K <sub>2</sub> O	0.047
Nb (ppm)	
Hf	7.7
Ta	1.6
Co	19.2
Sc	83
La	6.3
Ce	33
Nd	
Sm	7.4
Eu	1.59
Gd	
Tb	1.9
Dy	12
Er	
Yb	7.9
Lu	1.12
Ge (ppb)	
Ir	
Au	