78588

High-Ti Mare Basalt
3.77 g, 1.4 x 1.2 x 0.9 cm

INTRODUCTION

Sample 78588 is a dark grey mare basalt from the large rake sample at Station 8 (Fig. 1).

PETROGRAPHY

Warner et al. (1978f) describe 78588 as an olivine-microporphyritic ilmenite basalt (Fig. 2). A modal count shows ~6.5% olivine, 43% pyroxene, 28% plagioclase, 16% ilmenite, and ~5% silica.

MINERAL CHEMISTRY

The minerals in 78588 have been analyzed during the cataloging process by Warner et al. (1978f) (Fig. 3).

WHOLE-ROCK CHEMISTRY

Murali et al. (1977b) have reported the chemical composition of 78588 (Table 1 and Fig. 4). The Ce analysis needs to be checked again.

The relatively high Hf content indicates that 78588 is a Type A basalt (see appendix).

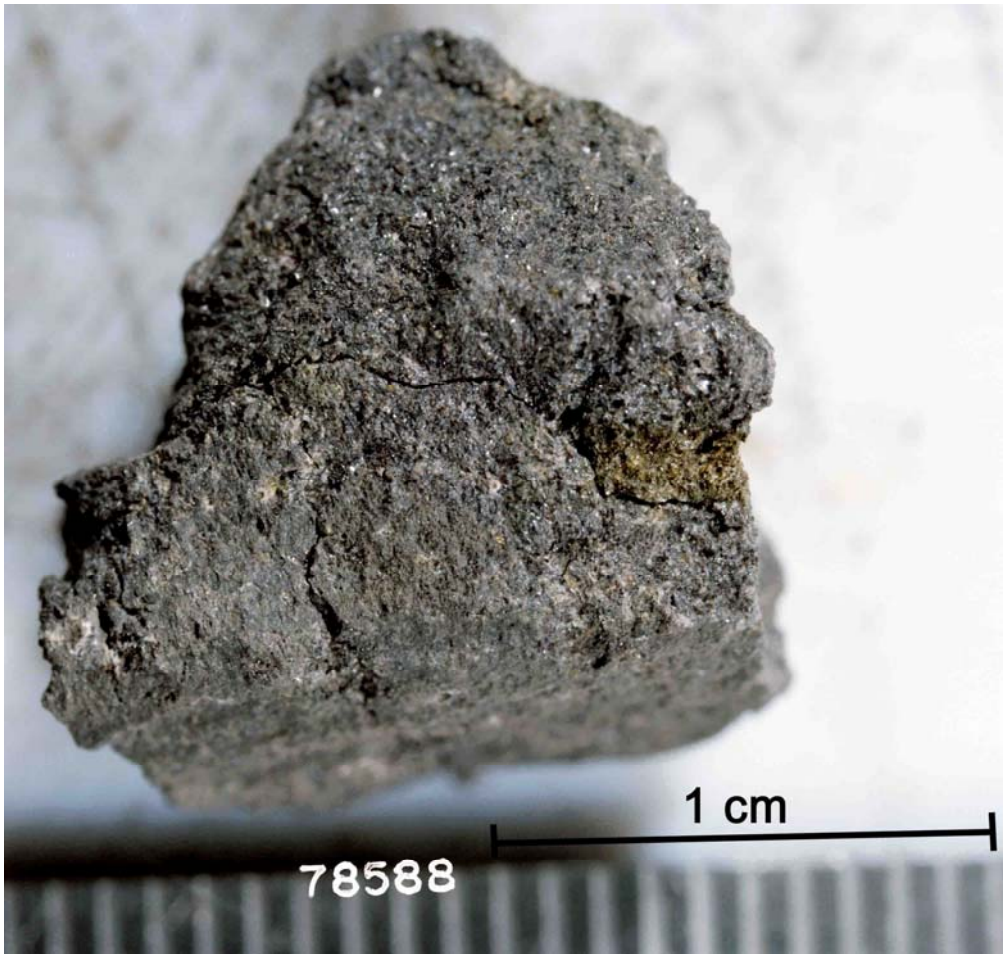

Figure 1: Photograph of 78588. Scale is 1 cm. S73-21023.

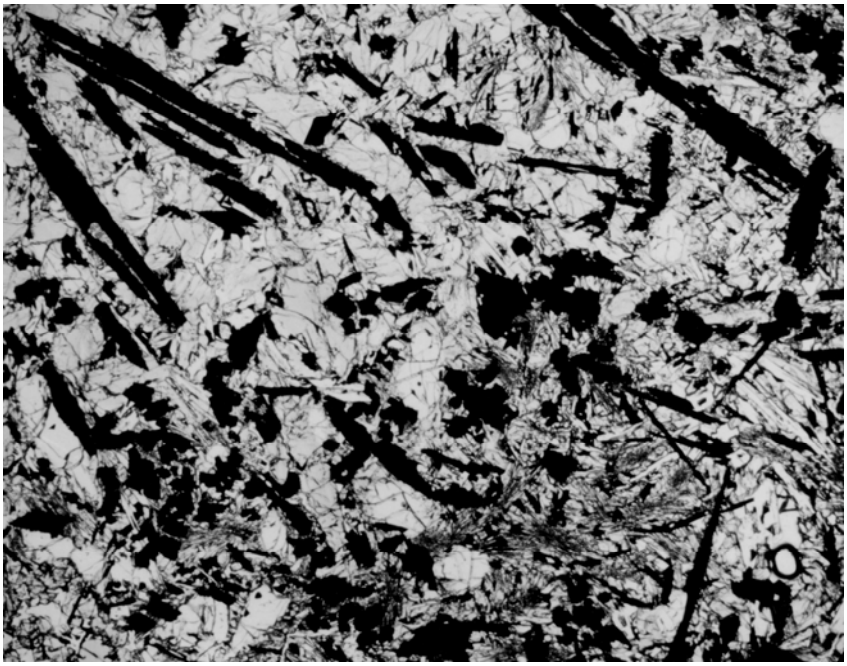

Figure 2: Photomicrograph of thin section 78588,5. Field of view is 3 x 4 mm.

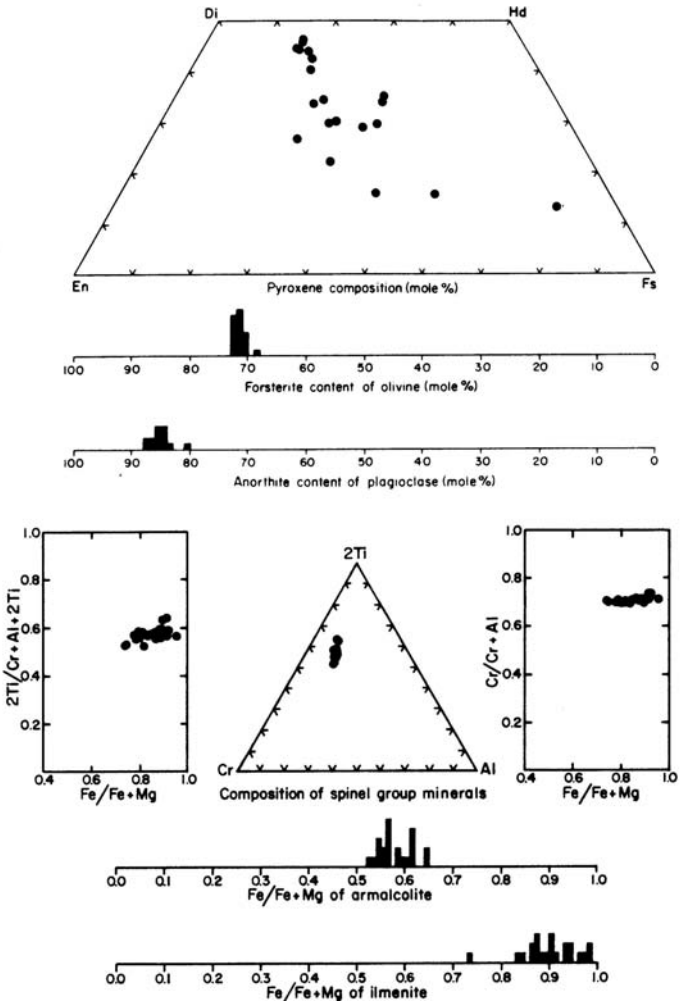

Figure 3: Mineral compositions for 78588. From Warner et al. (1978f).

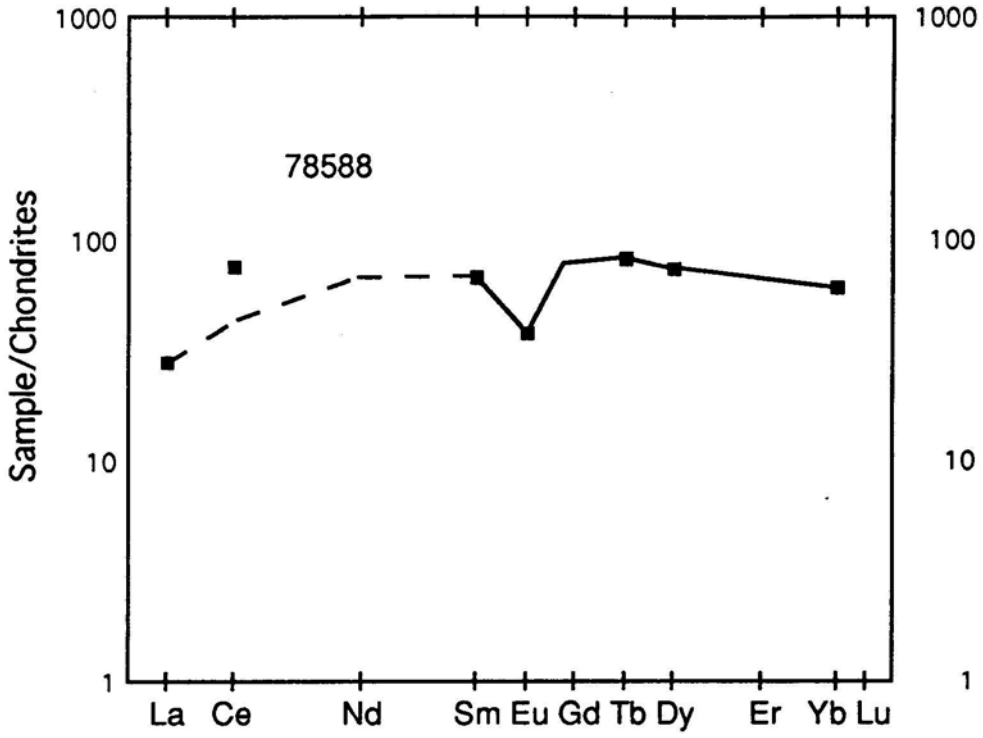

Figure 4: Normalized rare earth element diagram of 78588. Data from Murali et at. (1977b).

Table 1: Whole-rock chemistry of 78588.
From Murali et al. (1977b).

Split Technique	,1 INAA
SiO_2 (wt%)	–
TiO_2	13.0
Al_2O_3	8.9
Cr_2O_3	0.469
FeO	20.3
MnO	0.25
MgO	8.9
CaO	9.9
Na_2O	0.38
K_2O	0.69
Nb (ppm)	
Hf	10.8
Ta	1.9
Co	18.6
Sc	76
La	6.6
Ce	(46)
Nd	
Sm	9.9
Eu	2.15
Gd	
Tb	3
Dy	18
Er	
Yb	9.8
Lu	1.44
Ge (ppb)	
Ir	
Au	