

INTRODUCTION: 63556 is a medium gray, fine-grained, poikilitic impact melt (Fig. 1). It is a rake sample with many zap pits on one face, and few on the others.



FIGURE 1. Smallest scale division in mm. S-72-55401.

PETROLOGY: Warner et al. (1973) and Simonds et al. (1973) classify 63556 as a Poikilitic impact melt; the latter provide a petrographic description and microprobe data.

63556 consists of pigeonite oikocrysts 200-400 μm in diameter enclosing stubby plagioclase crystals (Fig. 2). The interoikocryst areas contain ilmenite, plagioclase, and glass. Pyroxene analyses are shown in Figure 3. A mode by Simonds et al. (1973) has

68% plagioclase plus mesostasis, 29% pigeonite, 2% olivine, and 1% opaque minerals. Olivine occurs as relict clasts, but most clasts are plagioclases. Lithic clasts are absent.

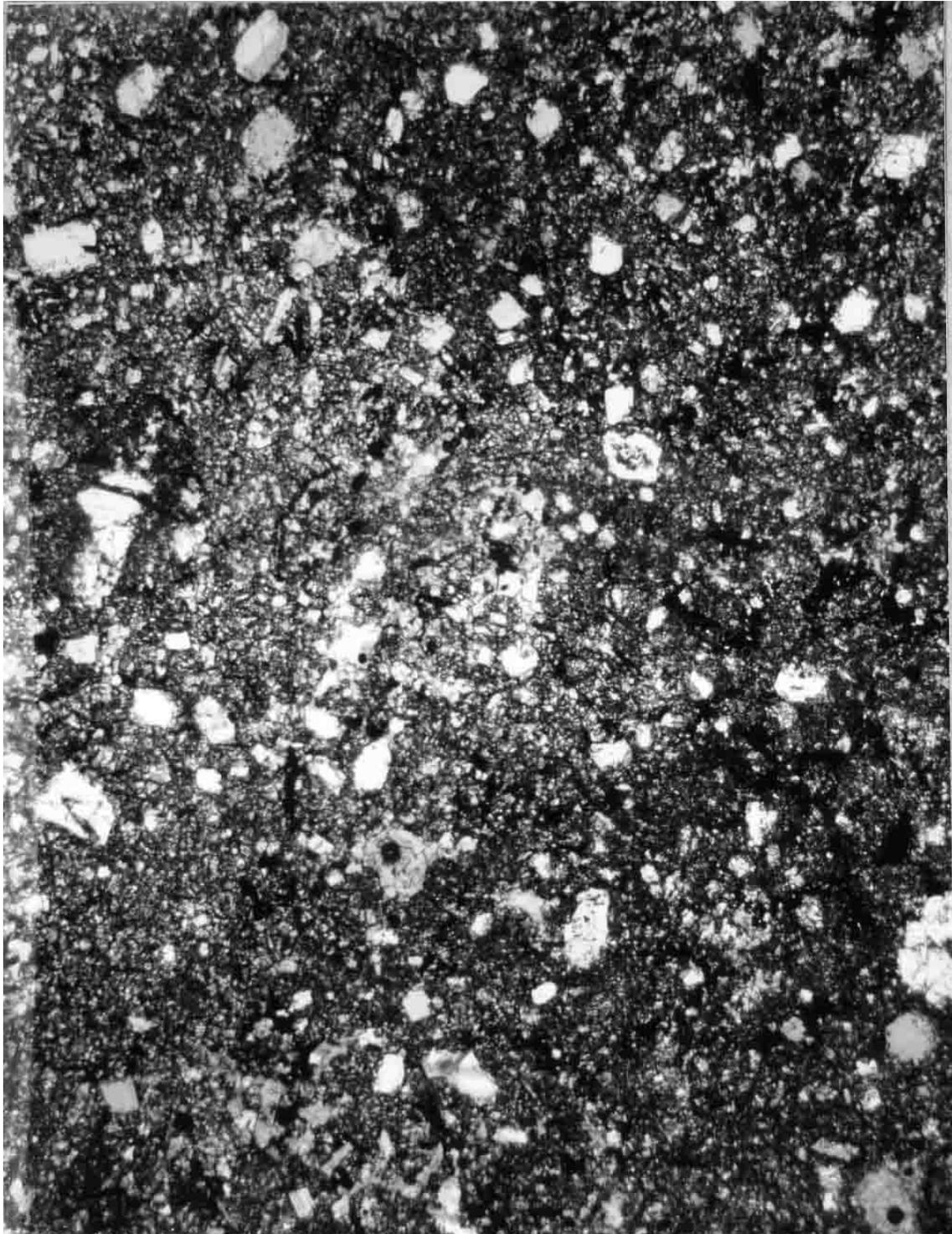


FIGURE 2. 63556,4, general view, ppl. Width 2 mm.

CHEMISTRY: Wasson et al. (1977) provide two replicate major and trace element analyses of chip ,6. The replicate analyses are very similar. The data are summarized in Table 1 and Figure 4. The sample is among the highest in incompatible elements at the Apollo 16 site.

PROCESSING AND SUBDIVISIONS: A small chip ,1 was taken (Fig. 1) and made into thin sections ,2 and ,4. Other groups of small chips ,5 and ,6, were allocated for chemical analyses.

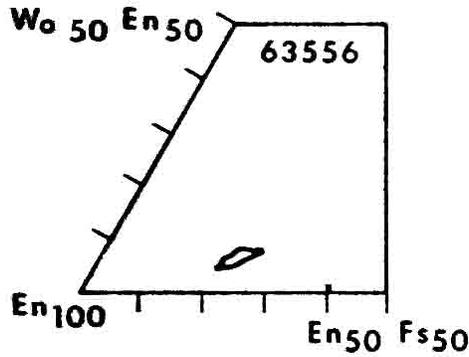


FIGURE 3. Pyroxene compositions, from Simonds et al. (1973).

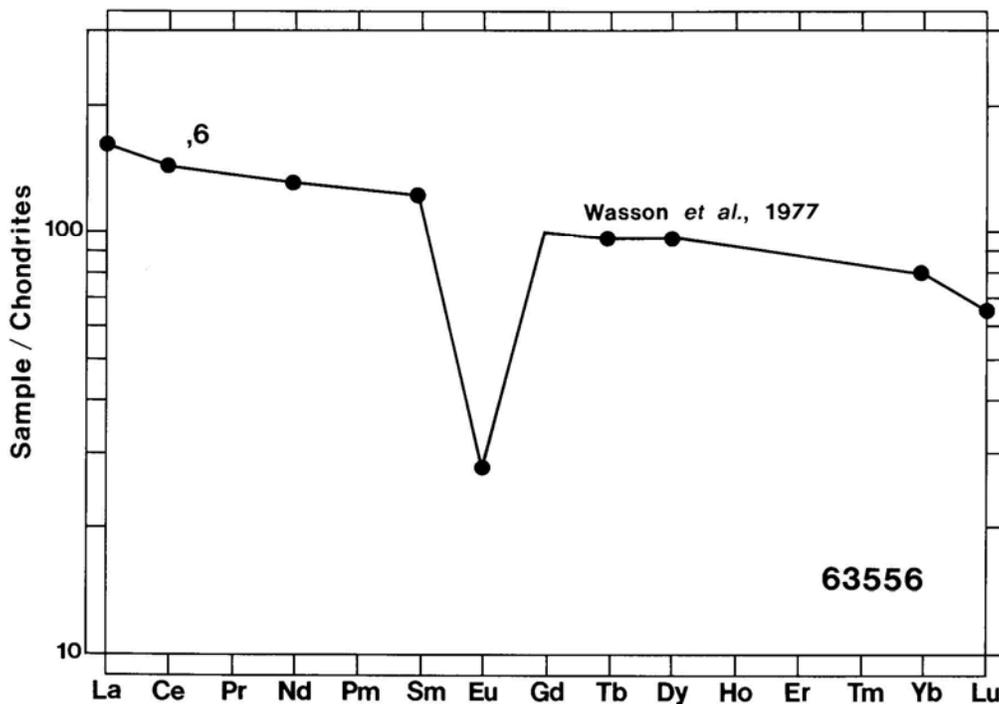


FIGURE 4. Rare earths.

TABLE 1. Summary chemistry of 63556 (Wasson et al.,1977).

SiO ₂	
TiO ₂	1.2
Al ₂ O ₃	19.7
Cr ₂ O ₃	0.18
FeO	8.5
MnO	0.11
MgO	10.3
CaO	11.9
Na ₂ O	0.59
K ₂ O	0.35
P ₂ O ₅	
Sr	
La	53
Lu	2.2
Rb	
Sc	15.4
Ni	~540
Co	~40
Ir ppb	~16
Au ppb	~9
C	
N	
S	
Zn	~2.3
Cu	

Oxides in wt%; others in ppm except as noted