

INTRODUCTION: 64576 is a coherent, light gray, basaltic impact melt (Fig. 1). It is a rake sample collected from the rim of a subdued doublet crater on Stone Mountain. Zap pits are absent.



FIGURE 1. Smallest scale division in mm. S-72-55363.

PETROLOGY: Warner et al. (1973) include this rock in a general petrographic discussion of Apollo 16 rake samples and give mineral compositions. Skeletal olivine phenocrysts rest in a matrix of plagioclase laths, interstitial olivine and pigeonite and abundant glassy mesostasis (Fig. 2). The texture is somewhat variable, ranging from intersertal to subophitic to variolitic. Clasts of plagioclase are common; one clast of fine-grained poikilitic impact melt was also observed. Metal and troilite are accessory phases. Mineral compositions are shown in Figure 3. Compositions of metal and coexisting schreibersite are given by Gooley et al. (1973) and are reproduced here as Table 1.

PROCESSING AND SUBDIVISIONS: In 1972 a single chip (,1) was removed and allocated to Phinney for thin sectioning and petrology.

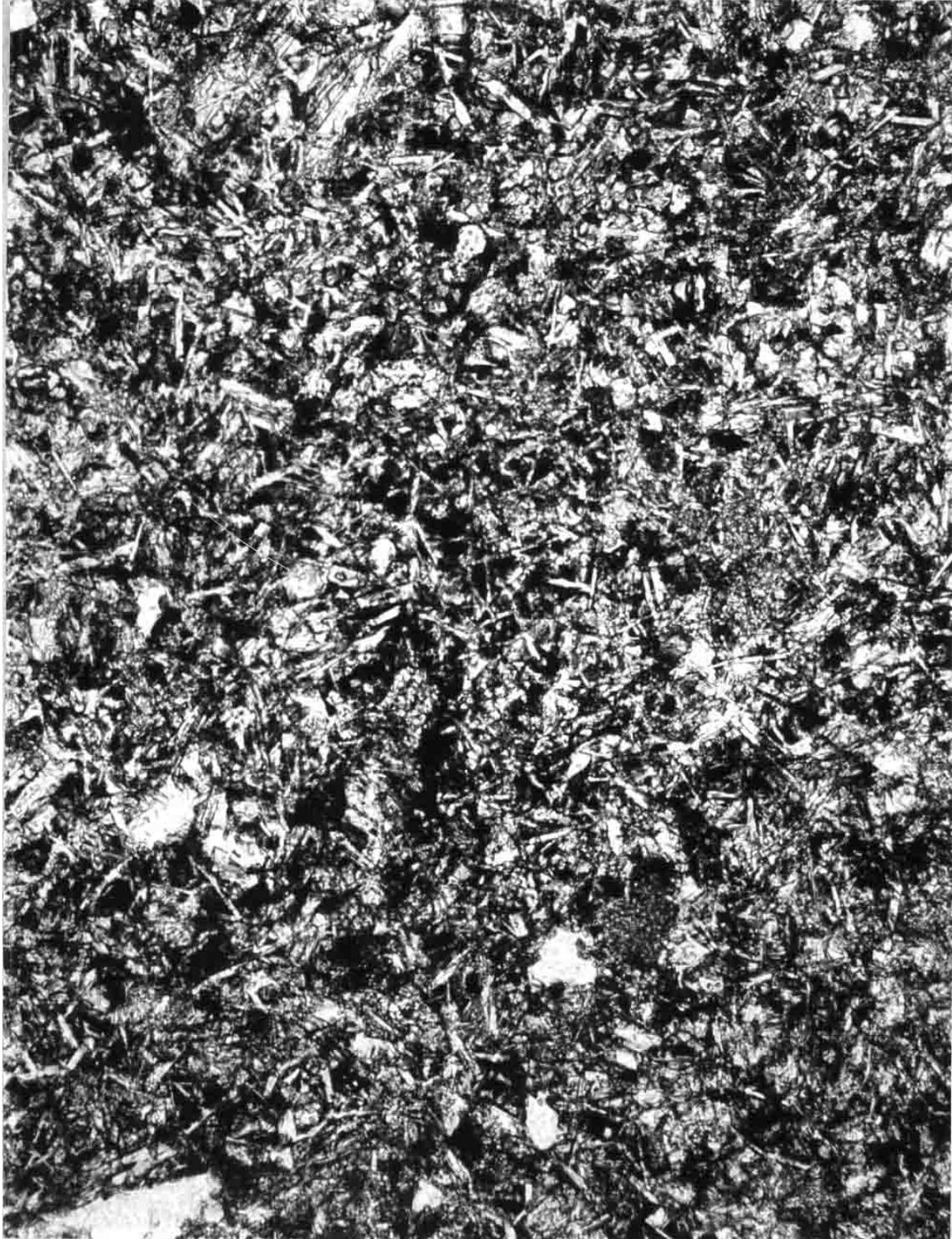


FIGURE 2. 64576,4, general view, ppl. Width 1 mm.

TABLE 1. Compositions of metal and coexisting schreibersite (wt%) in 64576, from Gooley et al., (1973).

	Ni	Co	Fe	P	S
Metal (without schreibersite)	4.4-16.1	0.6-1.2	-	0.0-0.2	0.02
Metal (with schreibersite)	12.0	0.8	86.9	0.03	0.01
Schreibersite	24.6	0.1	59.8	15.1	0.3

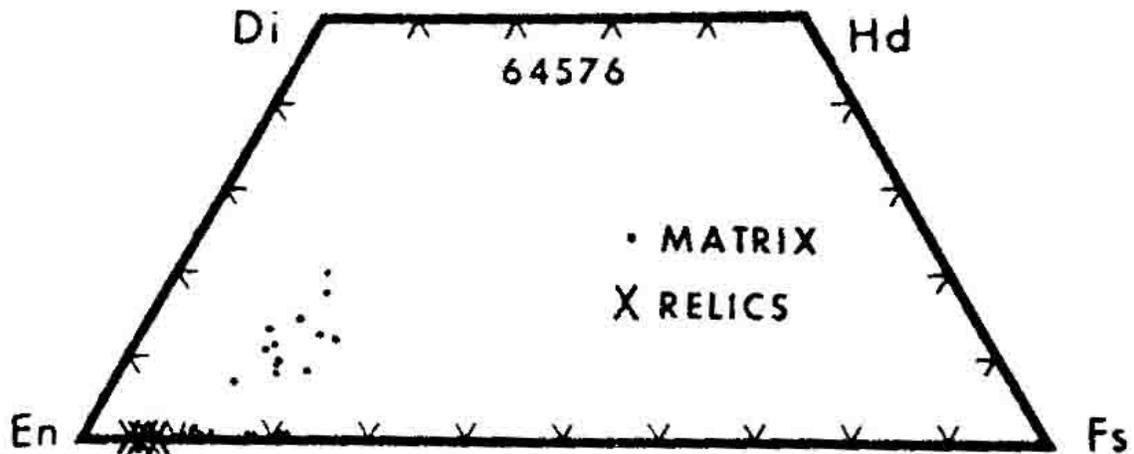


FIGURE 3. Mafic mineral compositions, olivine plotted along base, from Warner et al. (1973).