

INTRODUCTION: 64579 is a coherent, dark gray, aphanitic impact melt (Fig. 1). It is somewhat vesicular with a few zap pits on some surfaces. It is a rake sample from the rim of a subdued doublet crater on Stone Mountain.



FIGURE 1. Smallest scale division in mm. S-72-55368.

PETROLOGY: Warner et al. (1973) include 64579 in a general petrographic discussion of Apollo 16 rake samples. It is an impact melt which has crystallized to a fine-grained intergrowth of radiating plagioclase crystals and glassy mesostasis. Clasts of plagioclase and cataclastic anorthosite are common and often act as nucleation sites for the matrix crystals (Fig. 2). Fe-metal occurs in association with eutectic metal-phosphide intergrowths. Compositions of the metallic phases are given by Gooley et al. (1973) and reproduced here as Table 1.

PROCESSING AND SUBDIVISIONS: In 1972 two chips were removed and one of these (,1) allocated to Phinney for thin sectioning and petrography.

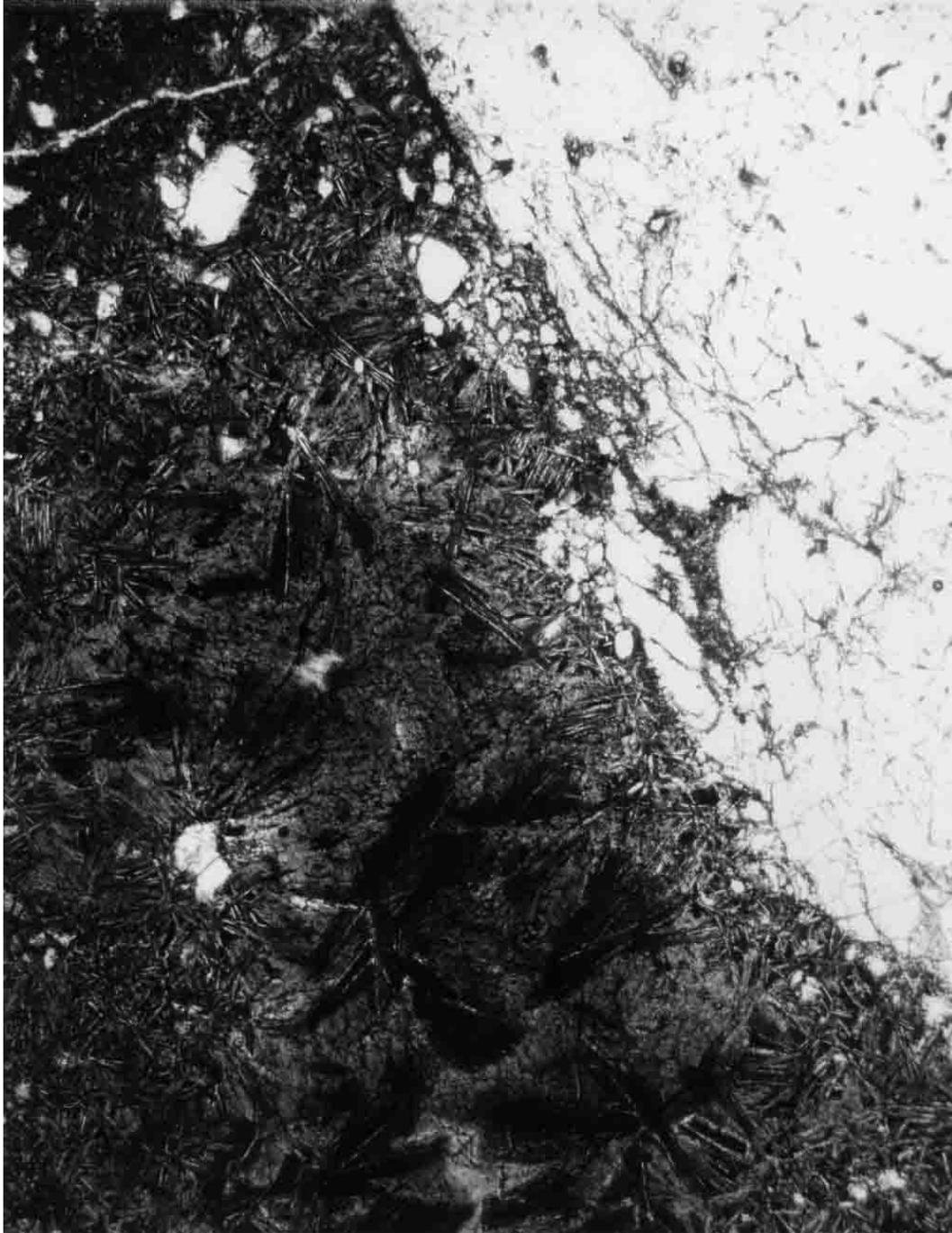


FIGURE 2. 64579,4, general view, ppl. Width 2 mm.

TABLE 1. Compositions of metal and metal-phosphide intergrowths (wt%) in 64579.

	Ni	Co	Fe	P	S
Metal	18.6	0.9	78.9	1.1	0.02
Eutectic Intergrowth	21.8	0.8	65.0	12.0	0.7