

INTRODUCTION: 67739 is a coherent, light-colored polymict breccia (Fig. 1). With a fine-grained, probably impact melt, matrix. It is a rake sample collected halfway between the White Breccia boulders and House Rock, and lacks zap pits.

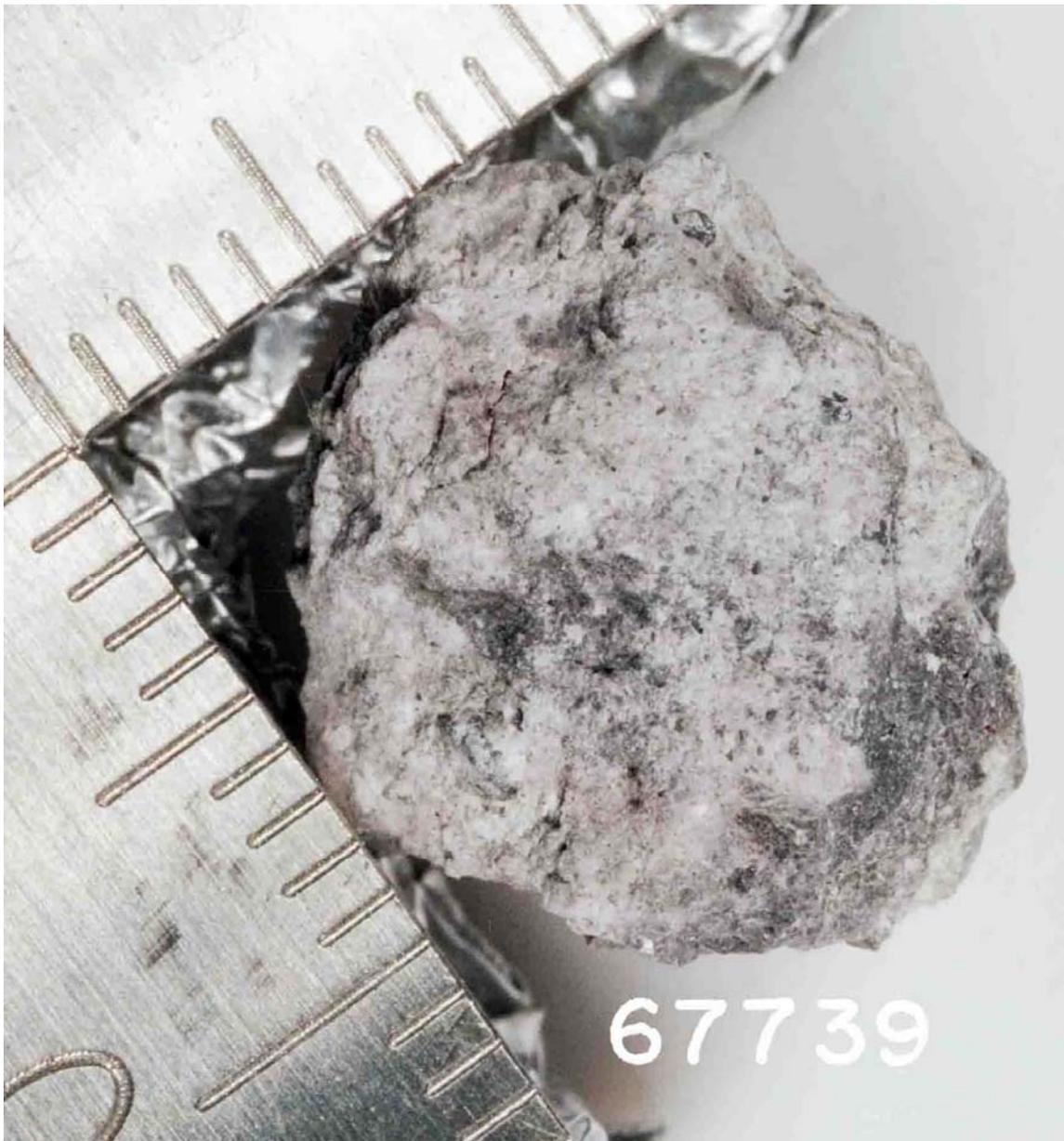


FIGURE 1. Smallest scale division in mm. S-72-51272.

PETROLOGY: Steele and Smith (1973) refer to 67739 as “breccia; numerous plagioclase-olivine clasts” with about 60% matrix (defined as material less than 5  $\mu\text{m}$  in diameter). They report microprobe data for pyroxenes, olivines and plagioclases.

67739 is a homogeneous, pale brown polymict breccia (Fig. 2). About 10% of the rock is clasts larger than 200  $\mu\text{m}$ , the rest is seriate down to extremely fine. The fine-grained mortar, which is at least 30% of the rock, is probably impact melt or devitrified glass, and binds plagioclase grains (20  $\mu\text{m}$  and smaller). Mafic grains and opaque minerals are extremely rare. The pyroxene analyses shown in Figure 3 are for matrix fragments.

Conspicuous are a few granoblastic and poikiloblastic impactite fragments which have about twice as much plagioclase as mafic minerals (Fig. 2). The mafic minerals are less than 100  $\mu\text{m}$  except for one poikiloblastic mineral which is about 300  $\mu\text{m}$  across. Plagioclases are 100-200  $\mu\text{m}$ , and a few have mafic mineral “necklaces.” Steele and Smith (1973) report that the mafic mineral in these fragments is olivine ( $\text{Fo}_{68}$ ); however, the poikiloblast has lamellae in it which are apparently exsolved, and it could be augite.

Plagioclase mineral clasts are unshocked or lightly shocked and subangular. Microprobe analyses of plagioclase are reported by Steele and Smith (1973); they range from  $\text{An}_{98}$ - $\text{An}_{90}$  (Fe 0.2% or less) but which plagioclases were analyzed is not reported.

PROCESSING AND SUBDIVISIONS: A single chip was taken to make thin section ,1.

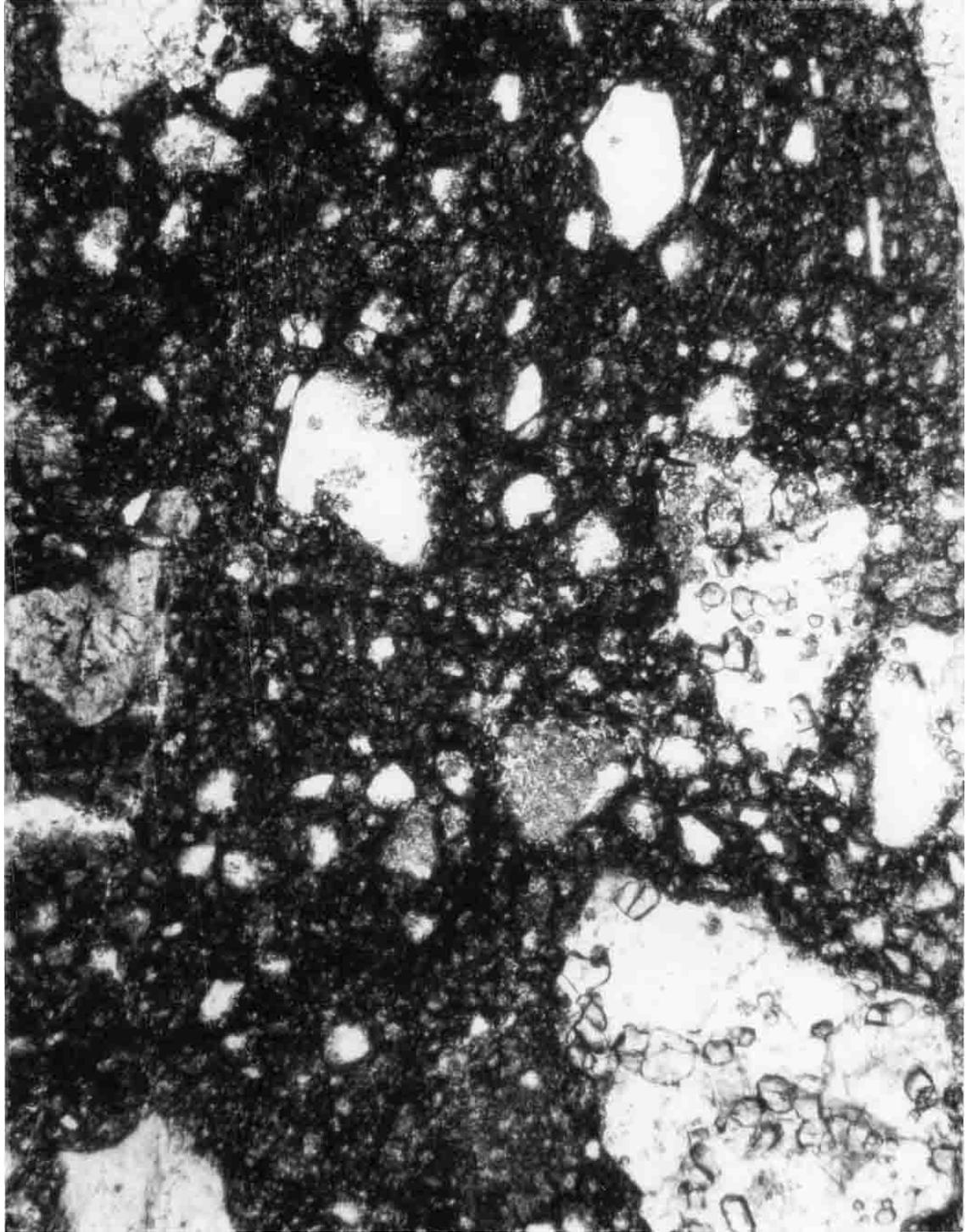


FIGURE 2. 67739,1. General view, ppl. Width 2 mm.