

INTRODUCTION: 64826 is a friable, medium gray, clastic breccia (Fig. 1). It is a rake sample from the rim of a small, subdued crater on Stone Mountain. Zap pits are absent.



FIGURE 1. Smallest scale division in mm. S-72-55309.

PETROLOGY: Warner et al. (1973) include 64826 in a general petrographic discussion of Apollo 16 rake samples and classify it as a "glassy breccia." Phinney et al. (1976) studied the characteristics of the matrix using SEM techniques and found <1% glass.

Abundant mineral and lithic clasts and bead fragments of clear to pale yellow glass rest in a porous, unequilibrated matrix (Fig. 2). Mineral fragments are dominantly plagioclase with lesser amounts of mafic silicates, metal, troilite and ilmenite. Lithic clasts include basaltic impact melt, fine-grained poikilitic impact melt, recrystallized breccia and granoblastic anorthosite.

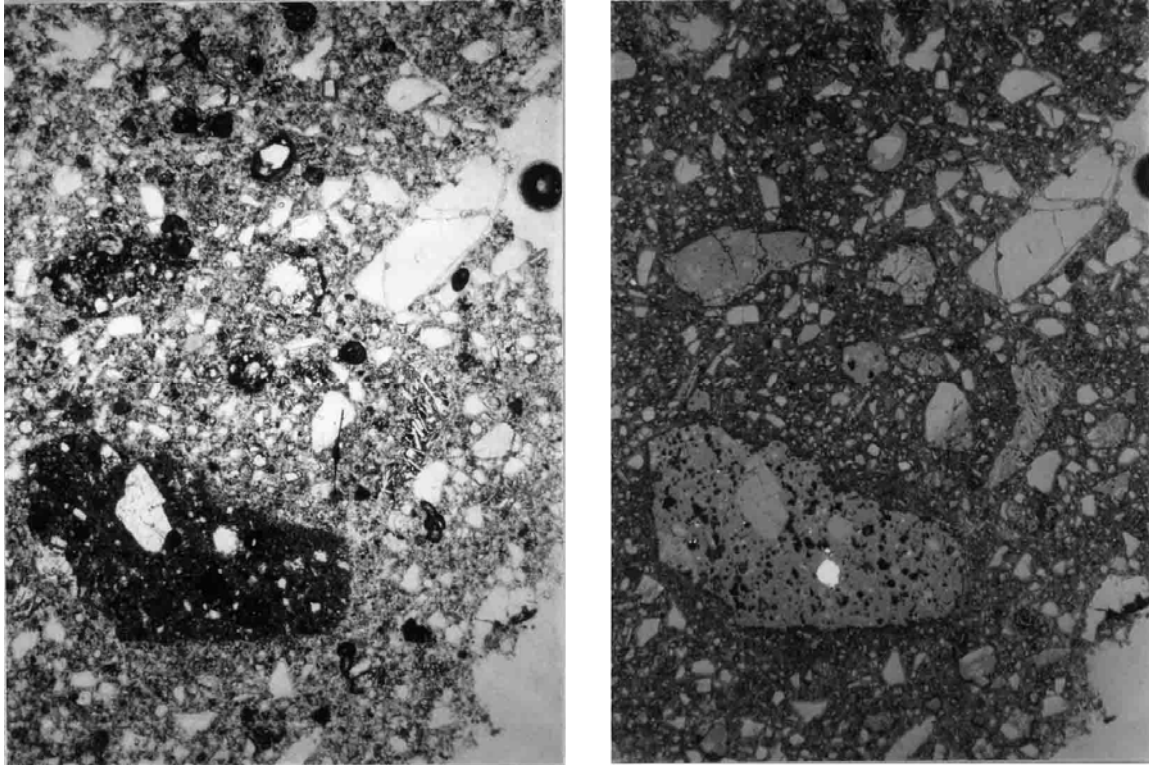


FIGURE 2. 64826,3, general view. Width 2 mm.
a) ppl. b) rfl.

CHEMISTRY: Floran et al. (1976) report major element data obtained by electron microprobe analysis of natural rock powder fused to a glass (except FeO and Na₂O by instrumental neutron activation). Blanchard (unpublished data) provides a trace element analysis and the FeO and Na₂O data quoted by Floran et al. (1976).

These data show that 64826 is very similar to the local mature soils in both major and trace element composition (Table 1, Fig. 3).

PROCESSING AND SUBDIVISIONS: In 1972 four small chips were removed and one of these (1) allocated to Phinney for thin sectioning and petrography. In 1975 a set of seven chips (2) was allocated for chemistry; the analyses of Floran et al. (1976) and Blanchard (unpublished) are both of portions; of this split. The remainder of the rock remains at JSC as ,0 (10.51 g).

TABLE 1. Summary chemistry of 64826.

SiO ₂	45.30
TiO ₂	0.45
Al ₂ O ₃	28.10
Cr ₂ O ₃	0.099
FeO	4.43
MnO	
MgO	4.59
CaO	16.22
Na ₂ O	0.479
K ₂ O	0.13
P ₂ O ₅	
Sr	
La	10.8
Lu	0.527
Rb	
Sc	8.04
Ni	260
Co	19.4
Ir	ppb
Au	ppb
C	
N	
S	
Zn	
Cu	

Oxides in wt%; others in ppm except as noted

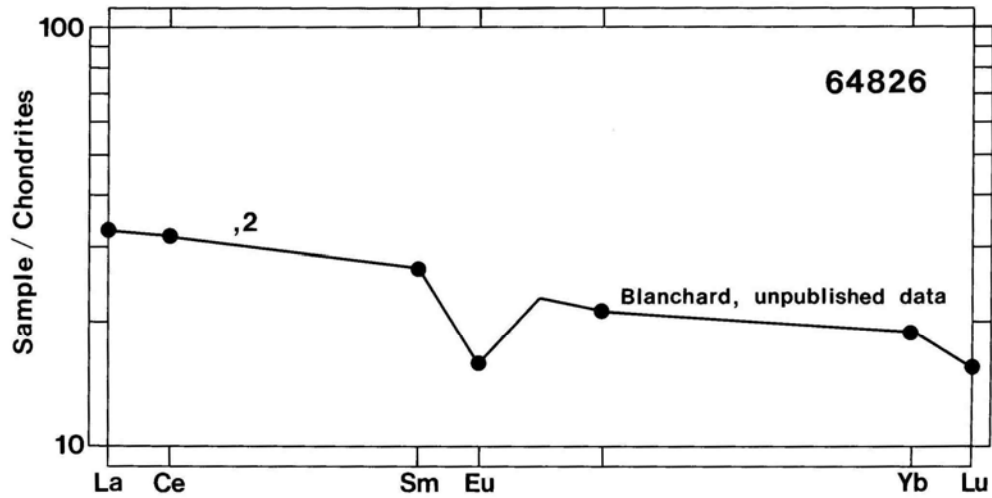


FIGURE 3. Rare earths.