

INTRODUCTION: 64568 is a coherent, medium gray, poikilitic impact melt (Fig. 1). Small vugs (~0.5 mm) are apparently distributed along healed fractures (Phinney and Lofgren, 1973). This rock is a rake sample from the rim of a subdued doublet crater on Stone Mountain. Zap pits are abundant on all surfaces.



FIGURE 1. Aluminum cup bottom is 2 inches in diameter. S-72-55370.

PETROLOGY: A petrographic description and mineral compositions are given by Simonds et al. (1973). Pigeonite is the sole oikocryst phase (~0.5 mm), enclosing abundant laths of plagioclase (Fig. 2). Clasts of plagioclase and rare anorthosite and mafic minerals are concentrated in the interoikocryst regions. A mode by Simonds et al. (1973) is 56% plagioclase + mesostasis, 39% pigeonite, 2% olivine, 2% opaques (Fe-metal, troilite, ilmenite) and 1% augite. Mineral compositions are shown in Figure 3.

PHYSICAL PROPERTIES: Pearce and Simonds (1974) report a magnetically determined $\text{Fe}^0/\text{Fe}^{2+}$ of 0.61.

PROCESSING AND SUBDIVISIONS: In 1972 three small chips (,1) were removed and allocated to Phinney for thin sectioning and petrography. The magnetic studies were done on the potted butt of ,1.

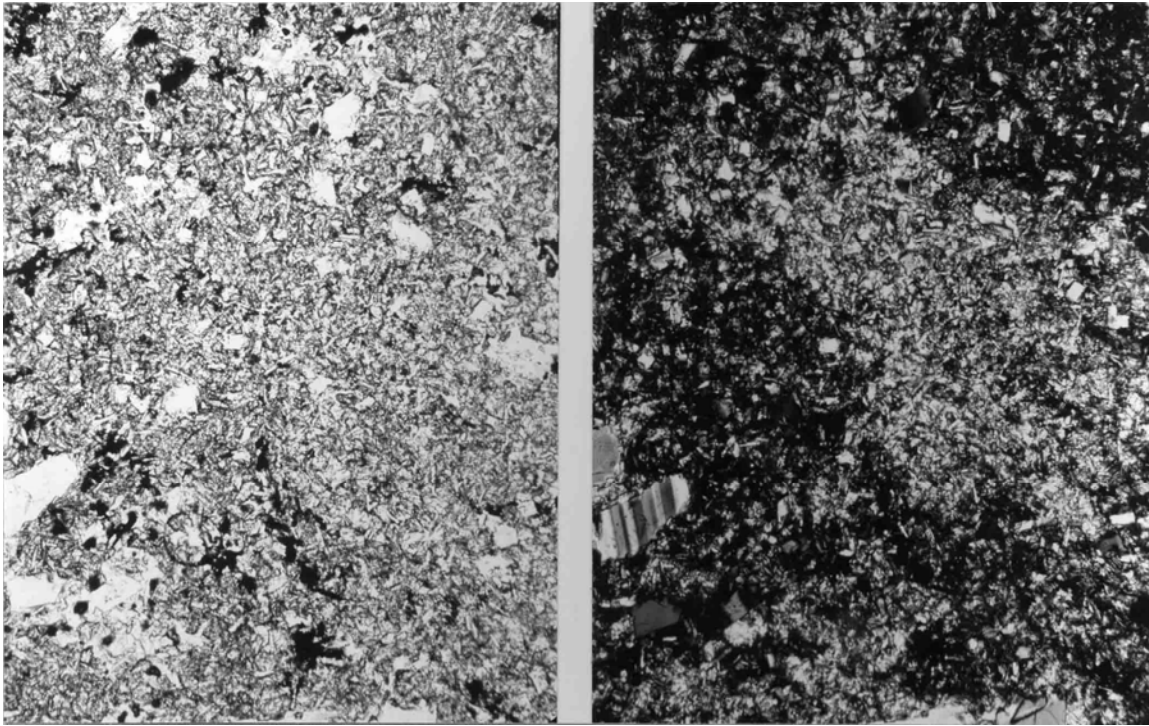


FIGURE 2. 64568,4, general view. Width 1 mm. a) ppl. b) xpl.

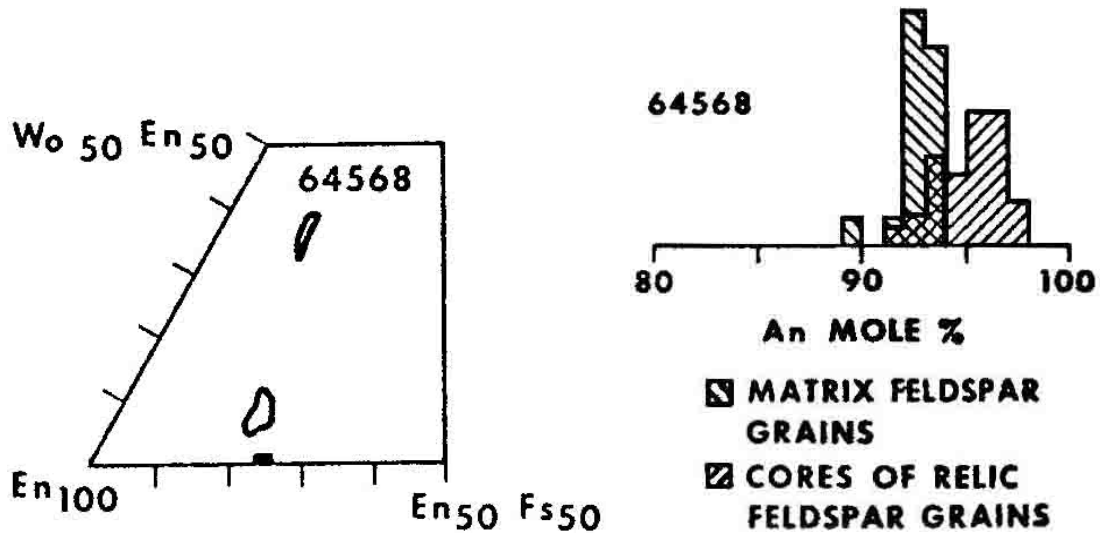


FIGURE 3. Mineral compositions, olivine plotted along base of pyroxene diagram, from Simonds et al. (1973).