

INTRODUCTION: 60516 is a white, moderately coherent, cataclastic anorthosite (Fig. 1). It is a rake sample collected about 50 m southwest of the Lunar Module. Zap pits vary in abundance from few in some areas to many in others.



FIGURE 1. Scale in mm. S-73-20461.

PETROLOGY: A brief petrographic description is given by Warner et al. (1976b). 60516 is also included in a discussion of ferroan anorthosites by Dowty et al. (1974a).

The rock appears to be monomict. Angular, moderately shocked clasts of plagioclase (up to 1.5 mm) rest in a granulated matrix, which is also dominantly plagioclase (Fig. 2). Pyroxene is the only mafic mineral present and is very rare. Mineral compositions are shown in Figure 3 and tabulated by Dowty et al. (1976). The composition and equilibrated nature of the pyroxenes and the very calcic plagioclases are typical of lunar ferroan anorthosites.

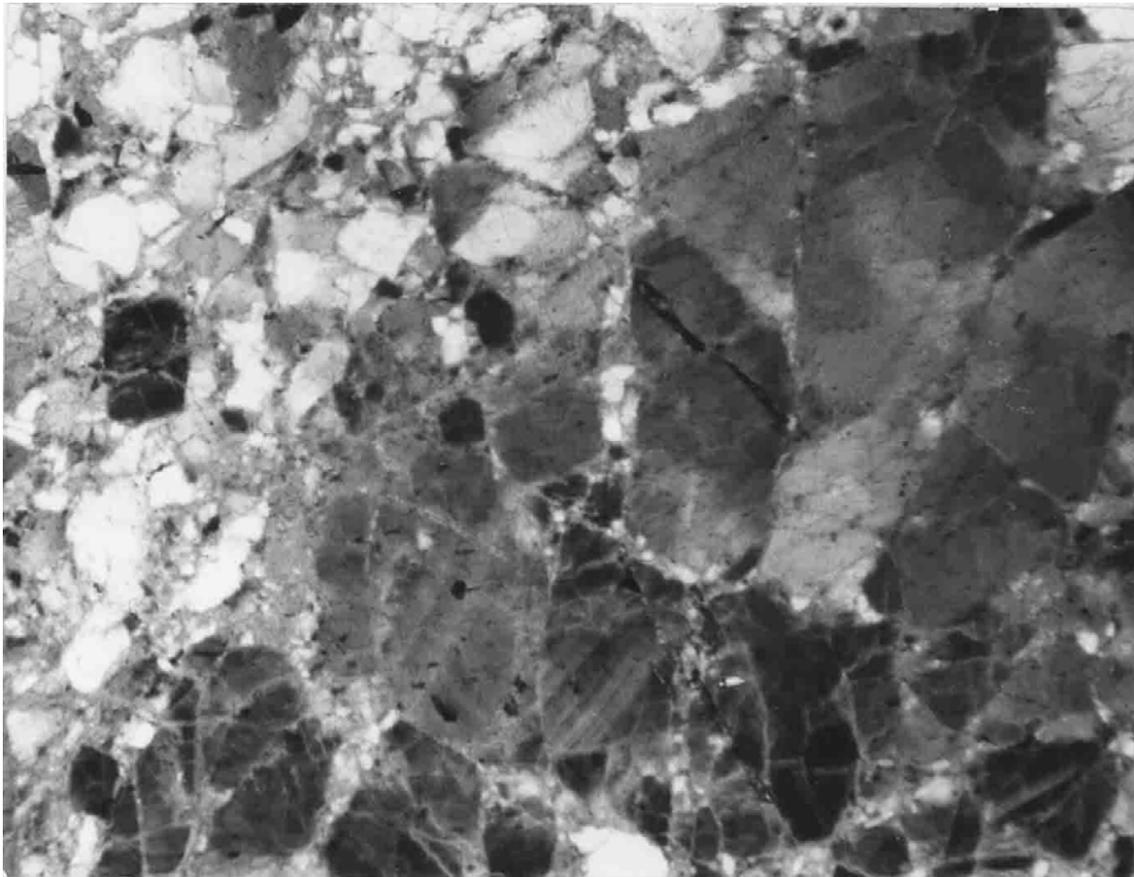


FIGURE 2. 60516,3. Partly xpl. Width 3 mm.

CHEMISTRY: A defocussed beam analysis (DBA) is given by Dowty et al. (1974a) and reproduced by Warner et al. (1976b) and here as Table 1. This analysis shows 60516 to be nearly pure plagioclase.

PROCESSING AND SUBDIVISIONS: In 1973 ,1 was removed for thin sections (Fig. 1).

TABLE 1. Summary chemistry of 60516.

| | |
|--------------------------------|------|
| SiO ₂ | 44.8 |
| Al ₂ O ₃ | 35.2 |
| FeO | 0.28 |
| MgO | 0.05 |
| CaO | 19.2 |
| Na ₂ O | 0.44 |
| K ₂ O | 0.01 |
| P ₂ O ₅ | 0.02 |

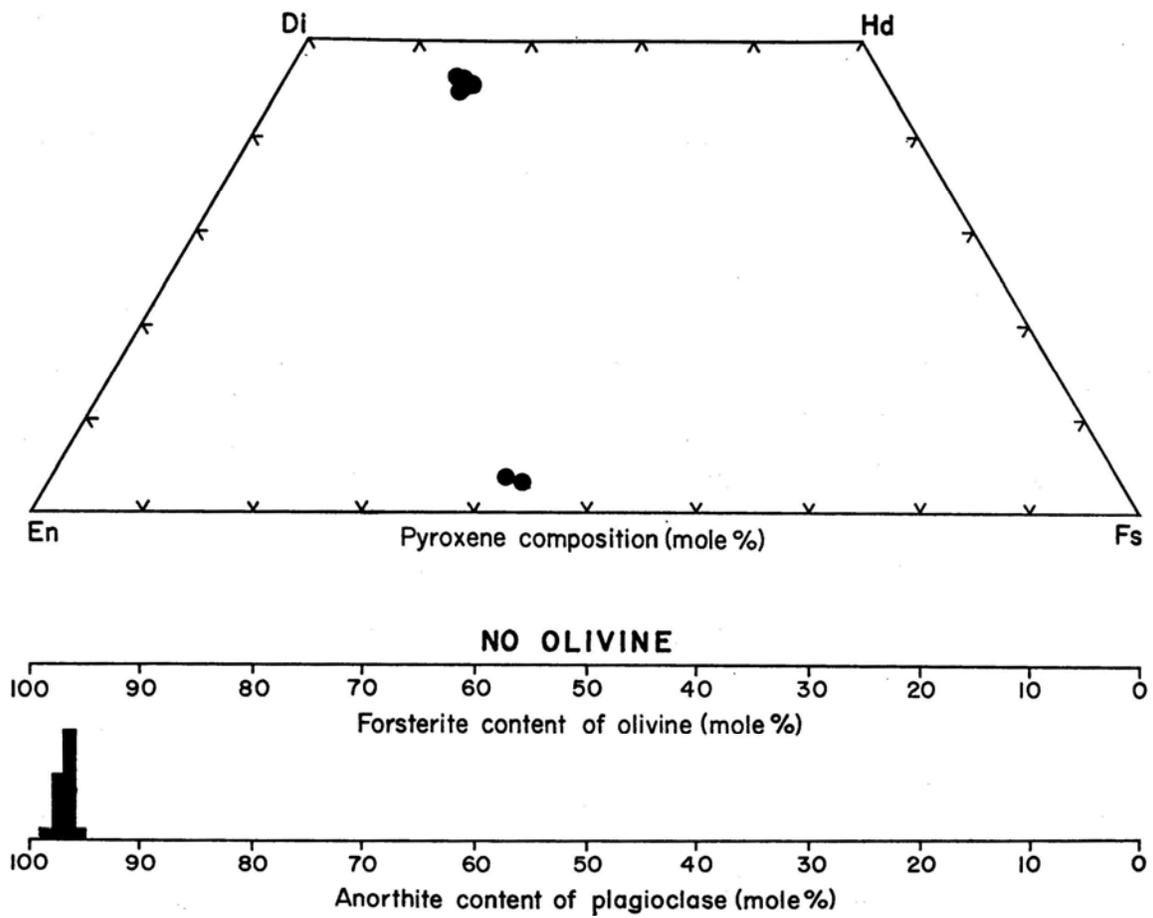


FIGURE 3. Mineral compositions

from R. Warner et al. (1976b).