# 67947

Granulitic Breccia

2.43 grams

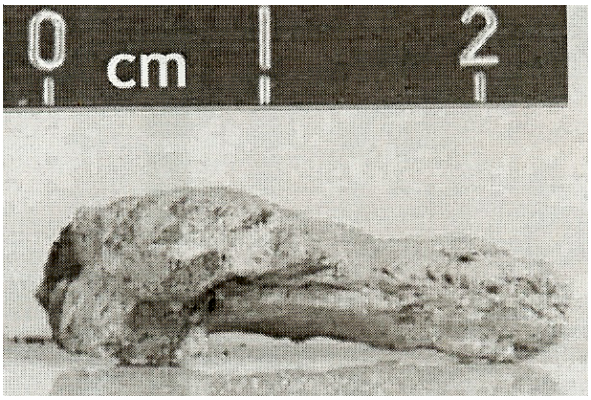


*Figure 1: Photo of 67947. S72-38977.*

## Introduction

Sample 67947 is a "walnut" from soil 67941. Stoffler et al. (1985) classified 67947 as a granulitic breccia, after looking at a thin section and measuring its REE content (figure 2). There is only one thin section.

### Mineralogical Mode 67947

*Stoffler et al. 1985*

| | |
|---|---|
| Plagioclase | 87% |
| Pyroxene | 11 |
| Olivine | 1.3 |
| Opaques | 0.7 |

### Table 1. Chemical composition 67947

| *reference* | Stoffler85 | |
|---|---|---|
| *weight* | | |
| SiO2 % | 42.93 | (a) |
| TiO2 | 0.41 | (a) |
| Al2O3 | 31.97 | (a) |
| FeO | 2.54 | (a) |
| MnO | | |
| MgO | 1.8 | (a) |
| CaO | 17.58 | (a) |
| Na2O | 0.57 | (a) |
| K2O | 0.07 | (a) |
| P2O5 | 0.03 | (a) |
| S % | | |
| *sum* | | |
| | | |
| Sc ppm | 6.74 | (b) |
| Co | 7.15 | (b) |
| Ni | 40 | (b) |
| Ba | 65 | (b) |
| Sm | 1.81 | (b) |
| Yb | 1.41 | (b) |
| *technique* | *(a) DBA, (b) INAA* | |

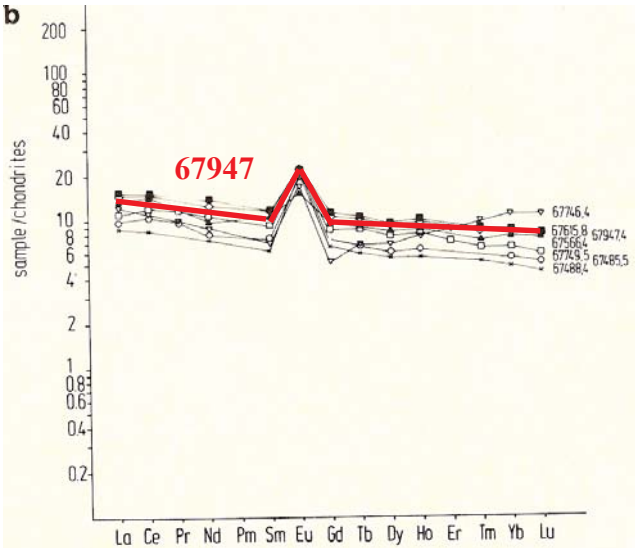


*Figure 2: Normalized REE diagrams for granulitic brecias (Stoffler et al. 1985).*

### References for 67947


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Ryder G. and Norman M.D. (1980) Catalog of Apollo 16 rocks (3 vol.). Curator's Office pub. #52, JSC #16904

Stöffler D., Bischoff A., Borchardt R., Burghele A., Deutsch A., Jessberger E.K., Ostertag R., Palme H., Spettel B., Reimold W.U., Wacker K. and Wanke H. (1985) Composition and evolution of the lunar crust in the Descartes highlands. *Proc. 15th Lunar Planet. Sci. Conf.* in J. Geophys. Res. **90**, C449-C506.

Sutton R.L. (1981) Documentation of Apollo 16 samples. In Geology of the Apollo 16 area, central lunar highlands. (Ulrich et al. ) U.S.G.S. Prof. Paper 1048.

*Figure 3: Photomicrograph of thin section 67947,3. 2 mm across*