15651
Olivine-normative Basalt
1.6 grams

Figure 1: Photo of 15651. Cube is 1 cm. S71-49769.

Mineralogical Mode

Olivine 3 %
Pyroxene 62
Plagioclase 28
Opaques 5
Silica 0.3
Meostasis 1.7
Dowty et al. 1973

Introduction
The large rake sample from station 9a, Apollo 15 included 15651 (figure 1). It is a medium-grained olivine-bearing mare basalt with microgabbroic texture (figure 2). In places the texture has been somewhat cataclasized by shock.

Petrography
Dowty et al. (1973) reported the mineral mode and determined the composition of the major minerals (figure 3). Pyroxene and olivine are chemically zoned and similar to that of olivine-normative basalts. Opaque minerals occur in clumps (Nehru et al. 1974).

Chemistry
Ryder and Steele (1981) determined the composition, finding that 15651 was an olivine-normative basalt (although silica was a bit high).

Processing
There are three thin section of 15651.

Figure 2: Photomicrograph of thin section 15651,7 by C Meyer @ 50x.

Figure 3: Composition of pyroxene and olivine in 15651 (Dowty et al. 1973).

Lunar Sample Compendium
C Meyer 2010
References for 15651.

Butler P. (1971) Lunar Sample Catalog, Apollo 15. Curators’ Office, MSC 03209


Ryder G. (1985) Catalog of Apollo 15 Rocks (three volumes). Curatorial Branch Pub. # 72, JSC#20787


### Table 1. Chemical composition of 15651.

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<th>Dowty73</th>
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**Technique:** (a) INAA, (b) fused-bead e-probe, (c) broad-beam e-probe