14168,33
Coarse-grained Basalt
0.94 grams

Figure 1: Thin section of 14168,33 (Warner et al. 1980).

Introduction
14168 is a collection of coarse-fines (4-10 mm) from the bag (1027) that held the football-sized rocks (14303-14305) and smaller rocks apparently derived from the breakup of the larger samples (14169-14188). A small amount of soil was also placed in this bag (14165). Most of the coarse-fine particles were probably derived from these breccia samples.

One of the particles (.33) was found to be a rare basalt (Kramer and Twedell 1977). It has been dated by Shih et al. (1986) at about 3.9 b.y.

Petrography
Warner et al. (1980) described 14168,33 as a high-K mare basalt with abundant small grains of K-feldspar (figure 1). Pyroxenes are typical of mare basalt (figure 2). Accessory minerals include olivine, chromite, metal and troilite.

Chemistry
14168,33 has low Ti, high Al, high K and a slightly bow-shaped REE pattern.

Radiogenic age dating
Shih et al. (1986) determined the age of this fragment (figure 3).

Summary of Age Data for 14168,39
Rb/Sr Ar/Ar Sm/Nd
Shih et al. 1986 3.82 ± 0.12 b.y. 3.85 ± 0.05 b.y. 3.91 ± 0.16 b.y.
Table 1. Chemical composition of 14168,33.

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**References for 14168**


Kramer F.E. and Twedell D.B. (1977) Apollo 14 coarse fines (4-10 mm) sample location and classification. JSC 12922


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