

14069

Sample 14069 was collected at station C', 1.28 km ENE of the LM and 100 m SE of the rim of Cone Crater during the second EVA. The material at C' appears to be material originally ejected from Cone Crater and re-ejected from a 30 m crater just south of station C' (Swann et al., 1977).

PHYSICAL CHARACTERISTICS

Mass

24.9 g

Dimensions

4.0 x 3.0 x 2.5 cm

Sample 14069 is a blocky, gray, finely crystalline breccia with a sugary texture.

SURFACE FEATURES

The surface is very irregular with no zap pits and 5-15% vugs. Three types of vugs were observed: elongate vugs (1.5 mm x 0.25 mm), spherical vugs (0.7 mm diameter), and an open network (0.5 mm). Clusters of elongate vugs and vuggy openings are 0.5 mm to 2.0 mm apart. Minerals project into the vugs, some at right angles, some at 45°, while others form botryoidal lumps on cavity walls.

Three sets of planar fractures occur: set 1 has one member and is oriented 35° to the intermediate axis of the rock. Set 3 has many members with apparently random orientation, but they may parallel clast edges.

PETROGRAPHIC DESCRIPTION

This rock is crystalline and is composed of colorless to white subhedral plagioclase and red-brown equant pyroxene. A trace of black, equant opaques are present.

Minerals lining the vugs include feldspar, pyroxene, a green mineral, a black mineral, and a colorless botryoidal silica mineral. The texture of 14069 is fine grained, with grains 0.2 mm average. One 4 x 2 mm plagioclase crystal is present. The sample appears similar to 14070.

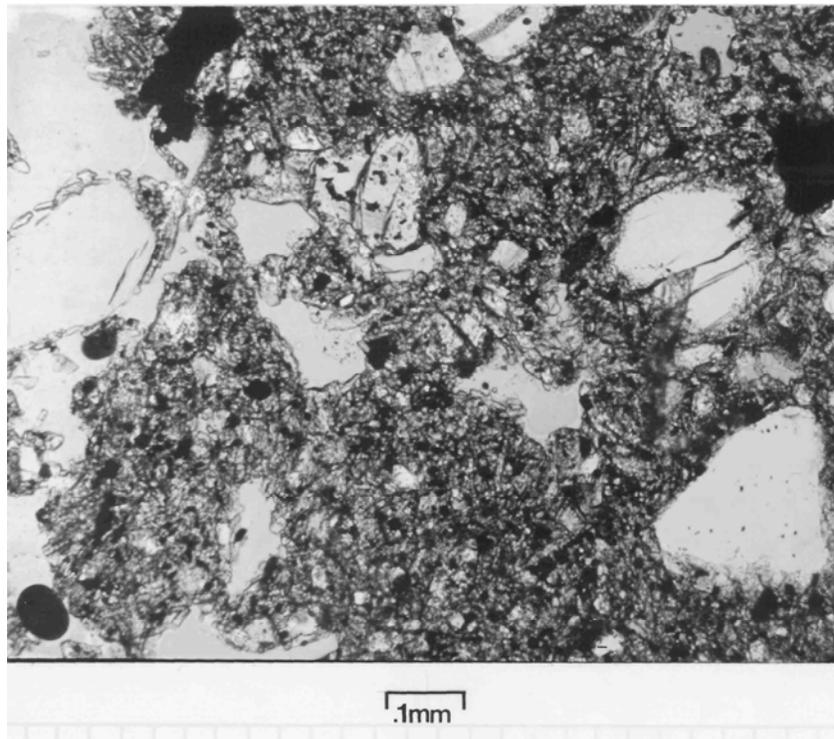
In thin section, 14069 is seen to have clasts of pyroxene and plagioclase. Some olivine/pyroxene, plagioclase granulitic rock fragments are present in thin section 14069,4. Sections 14069,4 and 14069,5 both contain small devitrified fragments. Troilite is present in large masses. The samples are composed of 60% plagioclase, 39% pyroxene and 1% olivine. Several pyroxene crystals have reaction rims. The average grain size is less than 0.1 mm.

DISCUSSION

This rock was described by Wilshire and Jackson (1972) as crystalline. Thin section examination reveals 14069 to be a crystalline breccia (or CMB) using the Simonds et al. (1977) classification.



Width of image is approximately 4.5 cm, S-71-29157



14069,4