

14070

Sample 14070 was collected from station C', 1.28 km ENE of the LM, and 100 m SE of the rim of Cone Crater during the second EVA. It appears to have been ejecta from Cone Crater that was later re-ejected from a 30 m crater in the vicinity (Swann et al., 1977).

PHYSICAL CHARACTERISTICS

Mass	Dimensions
36.5 g	4.2 x 3.0 x 2.0 cm

This is a blocky, subangular, coherent, light gray, crystalline breccia that is similar to 14069.

SURFACE FEATURES

The irregular surface contains no zap pits, but irregular elongate vugs ranging from 0.2 - 2 mm in size appear in clusters and have inhomogeneous distribution.

A set of planar fractures with three members spaced 2 mm to 5 mm apart are oriented 5° to the long axis of the rock. A second set is perpendicular to these and the surface of this set is the same as the rock. Intermediate to these sets is another set and parallel to the intermediate rock axis. The fourth set is parallel to the long axis of the rock and lies 30° to the first set.

PETROGRAPHIC DESCRIPTION

This sample is a very fine grained, almost holocrystalline breccia, with clear plagioclase, cinnamon-brown equant pyroxene (0.2 - 0.5 mm), and yellow-green olivine (0.2 mm).

Larger grains consist of greater than 3 mm grains of plagioclase and olivine (2%). Traces of opaques are present. Plagioclase laths are less well-developed than in 14069.

Thin section 14070,3 is basically that of a crystalline breccia with approximately 5% "glass" in the matrix. The only clasts (> 1 mm fragments) present are those of a mare basalt. The fragments consist of 80% anhedral pyroxene and 20% needle-like plagioclase. The texture is subophitic, but not well defined. One large and one small clast of this type is all that is present.

The matrix (< 1 mm) consists of several large highly shocked to slightly shocked plagioclase grains. These large grains are somewhat grouped but no distinct lineation could be seen. All the grains are twinned and most have some inclusions. The remainder of the matrix consists of a seriate mixture of mineral grains consisting of 70% plagioclase, 30% pyroxene, other fragments, and glass.

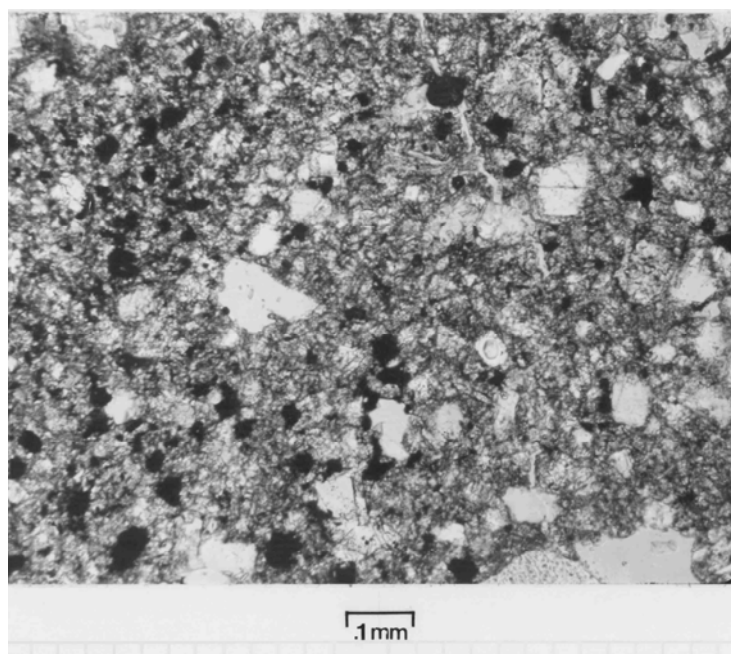
There are small irregular to subrounded vesicles (0.1 - 0.2 mm) present which are scattered throughout section 14070,3. Some show small crystallites extending into the void area. The rock appears to have undergone some degree of shock, resulting in partial melting and crystal degradation.

DISCUSSION

Wilshire and Jackson (1972) classified this sample as a crystalline rock, but it would, today, probably be classified as a CMB using the classification scheme of Simonds et al. (1977).



S-71-54218



14070,3