14265

Breccia

65.79 grams

Figure 1: Top and bottom of 14265. Samples is 5 cm across. NASA S71-29151 and 29154.

Introduction

14265 is from the "comprehensive sample" taken near ALSEP station. A circle 14 meters in diameter was drawn and all large rocks were collected and placed in bag 1039 along with soil. It has a relatively high cosmic ray induced activity so it must have been at or near the surface.

Petrography

Phinney et al. (1975) found 14265 had a glass coating on one side and was pitted by micrometeorites on the other side as though the glass coating had eroded away (figure 1). It may have been a glass bomb. It is mostly matrix with only small clasts.

14265 has numerous factures, some glass filled. The thin section shows vesicular glass bonding small fragments of a polymict breccia (Carlson and Walton 1977).

Chemistry

14265 appears to have the same composition as the soil at Apollo 14 (table 1, figure 2).

Cosmogenic isotopes and exposure ages

Eldridge et al. (1972) determined the cosmic-ray induced activity of ^{22}Na = 70 dpm/kg and ^{26}Al = 102 dpm/kg.

Processing

14265 is one of the comprehensive samples from weigh bag 1039 in ALRC 1007. There are two thin sections of 14265.

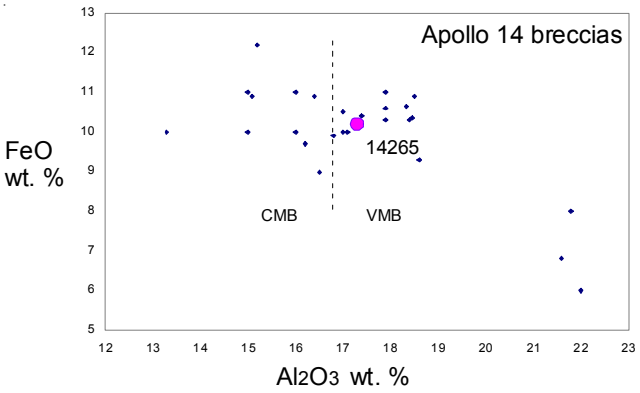

Figure 2: Composition of Apollo 14 breccias.

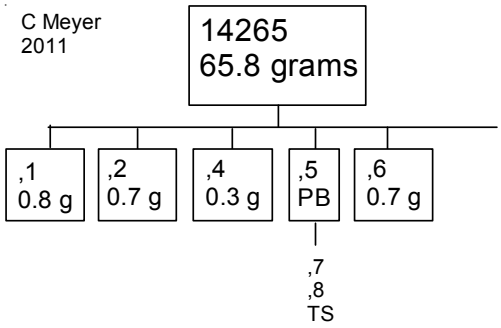

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Table 1. Chemical composition of 14265.

reference	Eldridge72		Simonds77			
weight			glass		matrix	
SiO2 %			47.53	(b)	47.36	(c)
TiO2			1.84	(b)	1.76	(c)
Al2O3			17.43	(b)	17.51	(c)
FeO			10.06	(b)	10.62	(c)
MnO					0.14	(c)
MgO			9.25	(b)	9.26	(c)
CaO			11.25	(b)	11.17	(c)
Na2O			0.6	(b)	0.68	(c)
K2O	0.49	(a)	0.46	(b)	0.47	(c)
P2O5					0.5	(c)
S %					0.09	(c)
sum						
Sc ppm						
V						
Cr			3210	(b)		
Co						
Ni						
Cu						
Zn						
Ga						
Ge ppb						
As						
Se						
Rb						
Sr						
Y						
Zr						
Nb						
Mo						
Ru						
Rh						
Pd ppb						
Ag ppb						
Cd ppb						
In ppb						
Sn ppb						
Sb ppb						
Te ppb						
Cs ppm						
Ba						
La						
Ce						
Pr						
Nd						
Sm						
Eu						
Gd						
Tb						
Dy						
Ho						
Er						
Tm						
Yb						
Lu						
Hf						
Ta						
W ppb						
Re ppb						
Os ppb						
Ir ppb						
Pt ppb						
Au ppb						
Th ppm	10.9	(a)				
U ppm	3.3	(a)				

technique: (a) radiation counting, (b) e. probe, (c) XRF