

61536
Glass Matrix Breccia
86 grams



Figure 1: Photo of 61536. Cube is 1 cm. S72-43397



Figure 2: Photo of 61536 with granoblastic anorthosite clast. Cube is 1 cm. S72-42298

Introduction

61536 was collected as a rake sample from near Plum Crater (figure 2) – see section on 61500. It contains a large white clast held within a glass matrix (figure 1). It has a thin glass coating on surface. This sample is not well studied.

Petrography

Ryder and Norman (1980) described the sample. McKay et al. (1986) and Joy et al. (2012) reported the maturity index $I_5/FeO = 9$ (immature) for 61536.

Significant Clast:

According to Ryder and Norman (1980), the large white clast is granoblastic anorthosite with 85% plagioclase. Many grains in this clast meet in triple junctions.

Chemistry

McKay et al. (1986) determined the composition.

Other Studies

McKay et al. (1986) and Joy et al. (2012) reported rare gas content of the matrix finding excess ^{40}Ar .

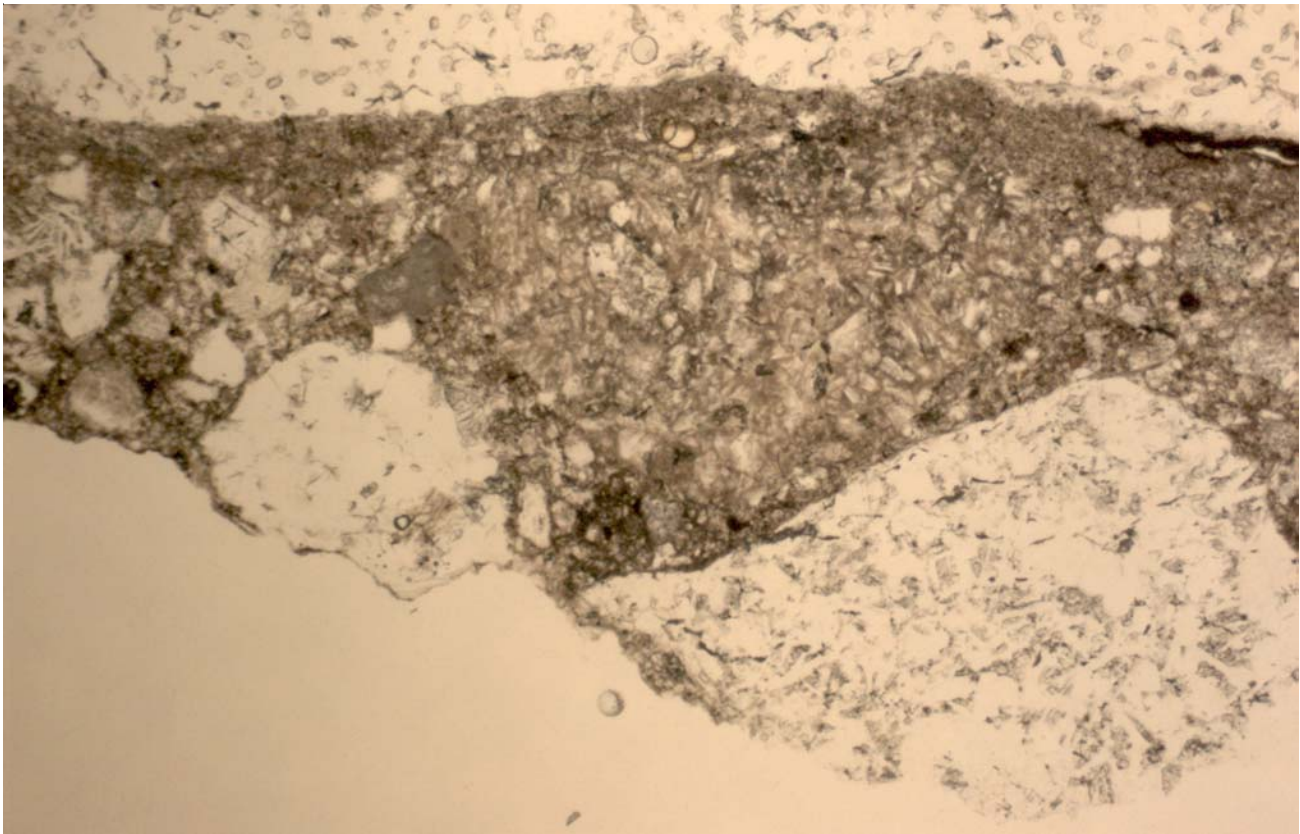


Figure 3: Photomicrograph of thin section of 61536.

Processing

The large white clast was designated ,2 and there are two thin sections.

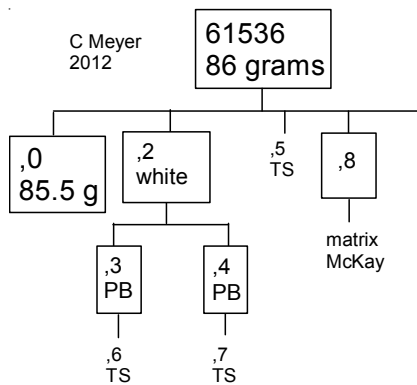


Table 1. Chemical composition of 61536

reference	McKay86	
<i>weight</i>		
SiO ₂ %		
TiO ₂	0.51	(a)
Al ₂ O ₃	27.6	(a)
FeO	4.47	(a)
MnO	0.07	(a)
MgO	4.9	(a)
CaO	16.7	(a)
Na ₂ O	0.53	(a)
K ₂ O		
P ₂ O ₅		
S %		
<i>sum</i>		
Sc ppm	7.82	(a)
V	16	(a)
Cr	563	(a)
Co	21.6	(a)
Ni	260	(a)
Cu		
Zn		
Ga		
Ge ppb		
As		
Se		
Rb		
Sr	186	(a)
Y		
Zr	160	(a)
Nb		
Mo		
Ru		
Rh		
Pd ppb		
Ag ppb		
Cd ppb		
In ppb		
Sn ppb		
Sb ppb		
Te ppb		
Cs ppm	0.09	(a)
Ba	114	(a)
La	10	(a)
Ce	26.6	(a)
Pr		
Nd	15	(a)
Sm	4.77	(a)
Eu	1.2	(a)
Gd		
Tb	0.92	(a)
Dy		
Ho		
Er		
Tm		
Yb	3.27	(a)
Lu	0.455	(a)
Hf	3.62	(a)
Ta	0.44	(a)
W ppb		
Re ppb		
Os ppb		
Ir ppb	9.8	(a)
Pt ppb		
Au ppb	4.4	(a)
Th ppm	1.7	(a)
U ppm	0.5	(a)
<i>technique: (a) INAA</i>		

References for 61536

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