

**60615**  
Basaltic Impact Melt  
32.97 grams



*Figure 1: Photo of 60615. Scale in mm. S73-20502.*

**Introduction**

60615 is a rake sample collected from an area near the Lunar Module. It is a basaltic impact melt with one large vesicle (figure 1).

**Petrography**

Dowty et al. (1974) and Warner et al. (1973) give the only description of 60615. The texture is mostly intergranular with olivine and pyroxene confined to interstices between fine plagioclase laths (figure 2). Xenocrysts of plagioclase account for 4% of the rock (Ryder and Norman 1980).

**Chemistry**

Laul and Schmitt (1973) give an analysis indicating that 60615 is highly aluminous, with high Mg/Fe ratio and with significant content of meteoritic siderophiles.

**Radiogenic age dating**

There are no age data for 60615.

**Processing**

There is only 1 thin section.



Figure 2: Thin section photomicrograph of 60615 (Warner et al. 1973).

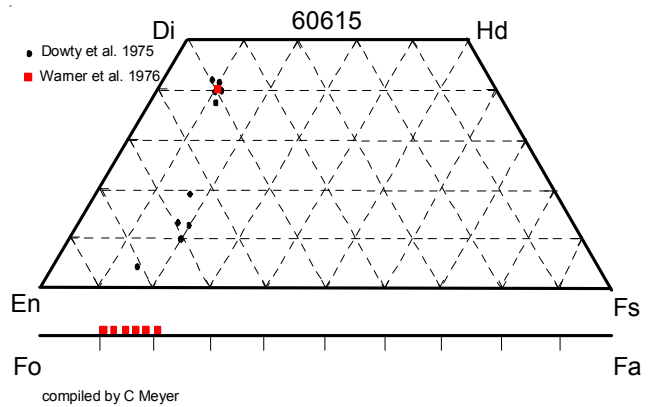


Figure 3: Pyroxene and olivine composition of 60615 (Dowty et al. 1974; Warner et al. 1973).

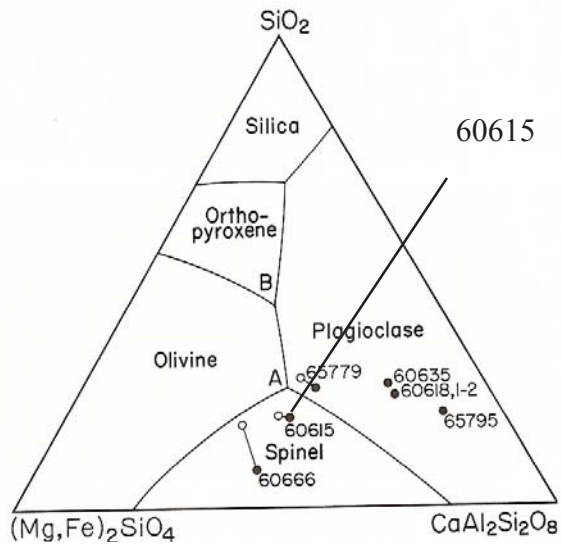
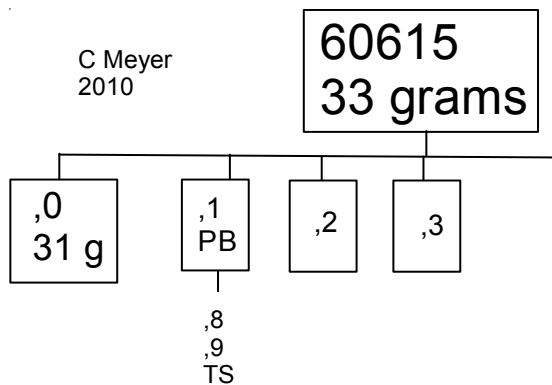


Figure 4: Composition of 60615 projected on the "Walker" diagram.



**Table 1. Chemical composition of 60615.**

reference weight	Laul73		Dowty 74		Warner 76
SiO <sub>2</sub> %			44.9		
TiO <sub>2</sub>	0.54	(a)	0.49	(b)	
Al <sub>2</sub> O <sub>3</sub>	21.5	(a)	22.1		
FeO	5.8	(a)	4.7		
MnO	0.071	(a)	0.05		
MgO	14	(a)	14.2		
CaO	12.1	(a)	12.8		
Na <sub>2</sub> O	0.386	(a)	0.45		
K <sub>2</sub> O	0.12	(a)	0.14		
P <sub>2</sub> O <sub>5</sub>			0.09		
S %					
sum					
Sc ppm	9	(a)			
V	30	(a)			
Cr	985	(a)	752		
Co	32	(a)			
Ni	490	(a)			
Cu					
Zn					
Ga					
Ge ppb					
As					
Se					
Rb					
Sr					
Y					
Zr	170	(a)	tr		
Nb					
Mo					
Ru					
Rh					
Pd ppb					
Ag ppb					
Cd ppb					
In ppb					
Sn ppb					
Sb ppb					
Te ppb					
Cs ppm					
Ba	140	(a)			
La	16.9	(a)			
Ce	44	(a)			
Pr					
Nd	28	(a)			
Sm	7.6	(a)			
Eu	1.13	(a)			
Gd					
Tb	1.4	(a)			
Dy	9.2	(a)			
Ho					
Er					
Tm					
Yb	5.3	(a)			
Lu	0.77	(a)			
Hf	5	(a)			
Ta	0.65	(a)			
W ppb					
Re ppb					
Os ppb					
Ir ppb	9	(a)			
Pt ppb					
Au ppb	8	(a)			
Th ppm	2.7	(a)			
U ppm	0.8	(a)			

technique: (a) INAA, (b) elec probe

**References for 60615**

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