61225

Impact melt Breccia

3.52 grams

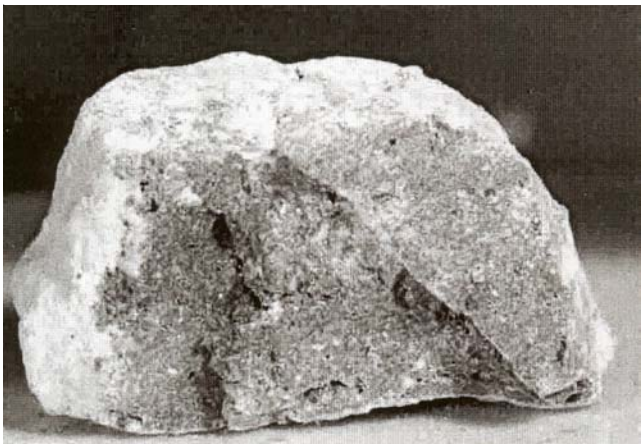


Figure 1: Photo of 61225. Sample is 2 cm across. S72-41306.

Introduction

61225 is a small chip of white material from the mysterious white soil collected from the trench at Plum Crater (see section on 61221). It has been dated at 3.9 b.y. by the Ar/Ar technique.

Petrography

Norman and Ryder (1980) give a very brief description of this particle. It was covered with chalky-white dust on most sides. However, it appeared igneous to them.

Marvin (1972) cataloged 4 – 10 mm coarse-fine particles from 61224 (and 61244) and Marvin and Mosie (1980) created a catalog of 1 - 4 mm coarse-fines from 61222-23 (but not 61242-43). In this process they noted a number of white particles, some of which may be additional pieces of impact melt similar to 61225.

Chemistry

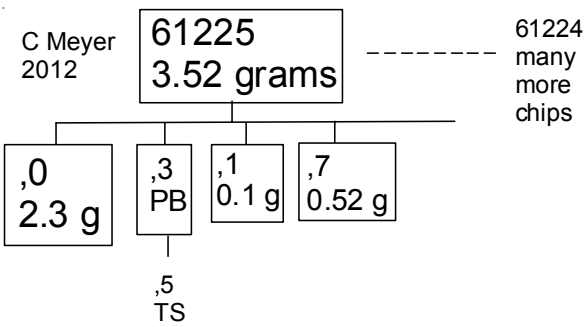
None

Radiogenic age dating

Norman et al. (2006) obtained two dates for chips of 61225 (figure 2).

Summary of Age Data for 61225

	Ar/Ar
Norman et al. 2006	3.88 ± 0.03 b.y
	3.91 ± 0.02



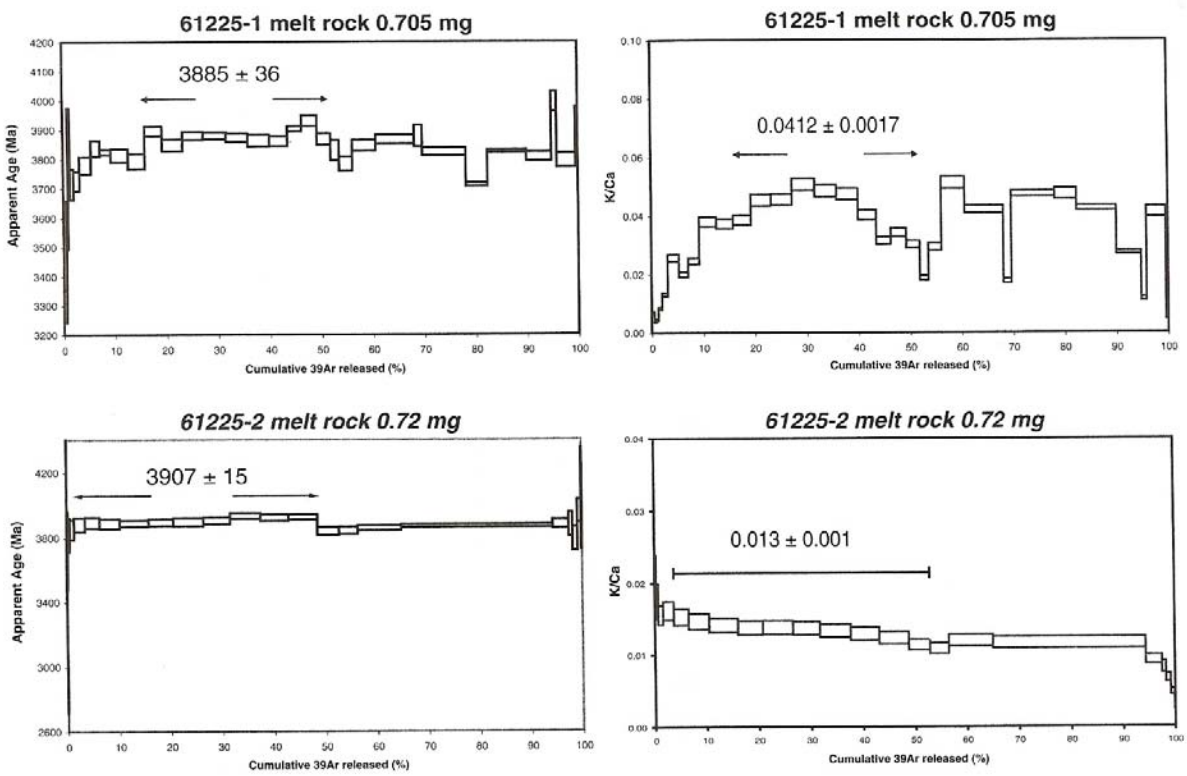


Figure 2: Ar/Ar plateau diagrams for 61225 (Norman et al. 2006).

References for 61225

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Norman M.D., Duncan R.A. and Huard J.J. (2006) Identifing impact events within the lunar cataclysm from ^{40}Ar-^{39}Ar ages and compositions of Apollo 16 impact melt rocks. *Geochim. Cosmochim. Acta* **70**, 6032-6049.

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