

Cometary Chip 6

Track 10

Images

Aerogel chip:
From unknown cell

Aerogel Chip:

Track and Grains: [MinPet\4.jpg](#)

Microtomed samples:
Only available for a few grids [10.pdf](#)

Track History:

Chip 6 was found on the surface of the canister upon opening, and has not been tied to a specific cometary cell. Feature 10 was a small track embedded by Brownlee in acrylic and microtomed.

Track Characteristics:

Type: carrot with terminal grain
Length: ~1.5mm
Grain 1 diameter ~9µm

Allocation History

Results

Grain 1

Bradley [TEM]: 1) Olivine and pyroxene intergrown. Striations in the enstatite crystal are consistent with stacking disorder and unit cell intergrowth of monoclinic clinoenstatite and orthorhombic orthoenstatite. No nuclear tracks. 2) LICE forsterite. No nuclear tracks. Glass with metal and sulfides at the grain rims, but these may have been produced during collection.

Joswiak (TEM): Has EDX mineral analyses but most of these require verification: Olivine (Fo₉₉₋₆₃), Fe-Ni metal, OPX, Pyrrhotite, Spinel, Al-silicic glass, Ni-Rh metal, SiO₂ glass, Fe-Ni-Cu sulphide, Plagioclase, Na-Ca-Al silicate, Al metal, Calcite, Pentlandite. Zolensky: Comment- Calcite and Al metal are probably contamination.

Mikouchi (FEGSEM): He found both silica-rich amorphous phases and possible Mg-rich silicates in these grains. EDS spectra of Mg-rich silicates usually show high concentration of Si. As is the same case with FC6,0,10,7,15, they are either pyroxenes or olivine contaminated with silica spectra.

Data Files: Not available yet