

Sample Information Sheet

Sample ID: C2092,1,82,00 – Already returned to JSC

Sample type (select one):
(4) keystone on fork

Type of analysis performed:
(1) 3D Laser Scanning Confocal Microscopy (LCSM)
(2) Synchrotron XRF
(4) Synchrotron XRD
(3) Synchrotron XR-CMT

State of sample pre-analysis: Keystone on fork

State of sample post-analysis : Unaltered

Minerals or other phases identified:
Preliminary XRF work indicates a large Zr bearing particle $\frac{1}{4}$ down the track and a large, bifurcated terminal particle rich in Fe and Ni.
XRD work returned little information.

Contaminant phases identified (including melted aerogel): N/A

Additional Notes:
Full mapping of track with LCSM as well as XR-CMT has been completed, as well as full quantitative analysis (track volumes, cross sectional area, skewness). LCSM has provided high resolution (<100 nm/pxl) morphological data on entire track structures.

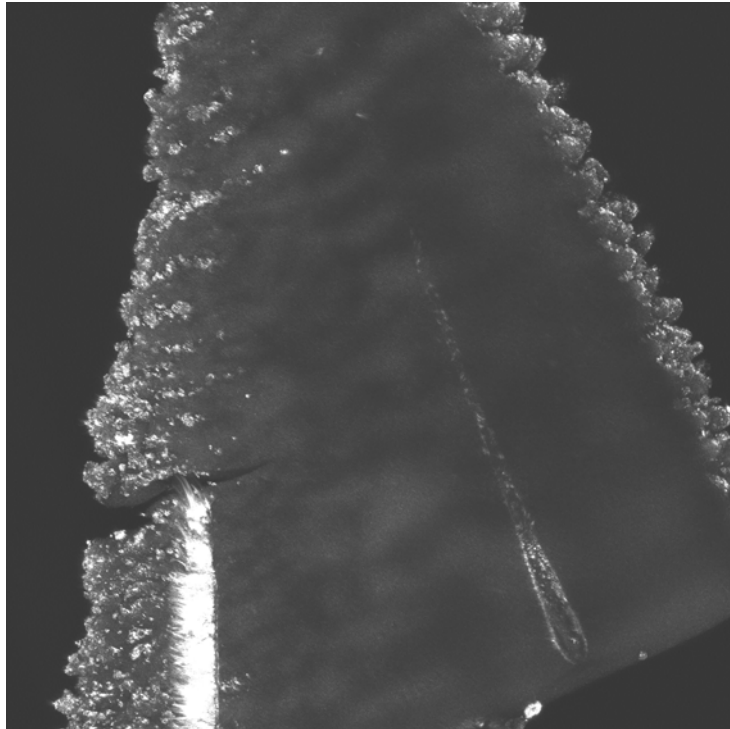


Fig 1: Greyscale LCSM projection, Track #82 (8 Bit, $0.450\mu\text{m}/\text{pxl}$). Brighter areas indicate higher reflectance. Track #82 extends nearly to the top of the field of view.

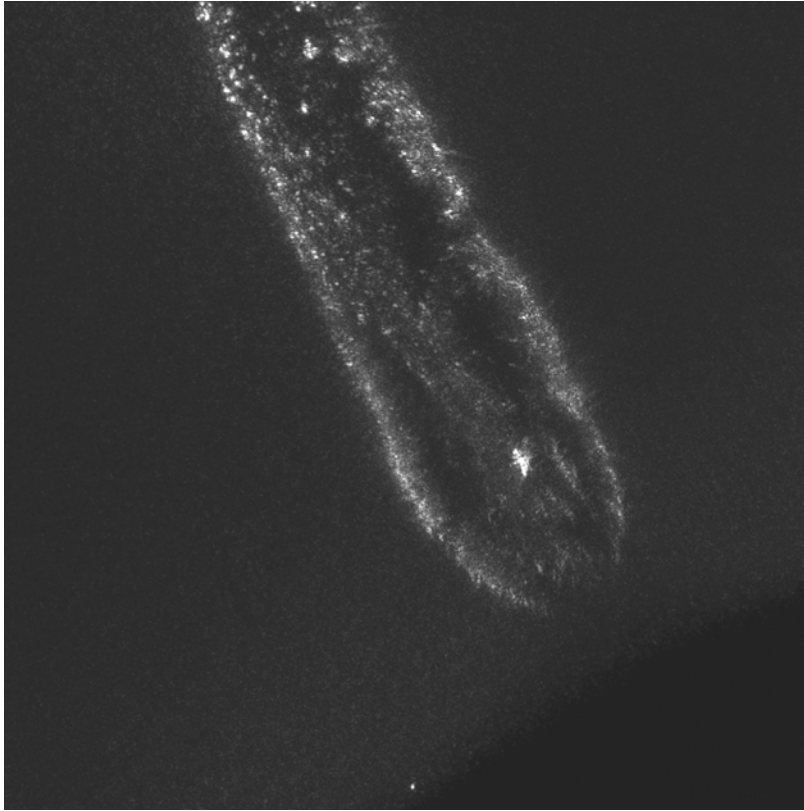


Fig 2: Greyscale LCSM projection, Track #82, Entry Closeup (8 Bit, 0.065 μ m/pxl). Banding on the track indicates rifling motion during impact.