Track 162 survey run notes ALS 10.3.2

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Summary:

- TP contains abundant Ca, Ti
- brightest Ti we have seen so far in any Stardust samples
- Ti-XANES was taken, but not yet interpretable
- Ga, Ge detected in TP
- Fe XANES of TP fits to ~70% olivine, ~30% sulfide
- Fe-edge chemical map of track + TP shows mostly Fe²⁺, with some sulfide components in both



80µm scalebar

TP XRF shows Ca, Ti, Cr, Mn, Ni, Ga, Ge

Ti sufficiently abundant that we did Ti-XANES (not in trans mode unfortunately, glitch at 5235.55eV when calibrated), followed by a Ti foil standard

Also did Fe XANES



TRACK 162a



Did vanadium K +/-50eV, saw no evidence for V





Track 162 TP Ti Quick XANES



We have a very limited Ti-XANES library, with standards irrelevant to meteoritic materials, so no conclusion can yet be drawn regarding Ti oxidation state or mineralogy