

LA-UR-22-31500

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Title: X-ray CT images of the LOKI-PDMS impact tests

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Intended for: communicate results from X-ray CT analysis to a university collaborator

Issued: 2022-10-30



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X-ray CT images of the LOKI-PDMS impact tests

Brian M. Patterson, Gary Gladysz

October 2022

CT Imaging

- Imaged using a Carl Zeiss X-ray Microscopy Inc. Xradia 520 Versa
- Flat panel detector
- 80 kVp, 7W, 1 s dwell (0.05 s, n=20), 4501 radiographs
- 10.43 micrometer voxels
- Samples were trimmed to a hexagon to limit imaging artifacts.

Test Series J-3: PDMS Optical Photographs

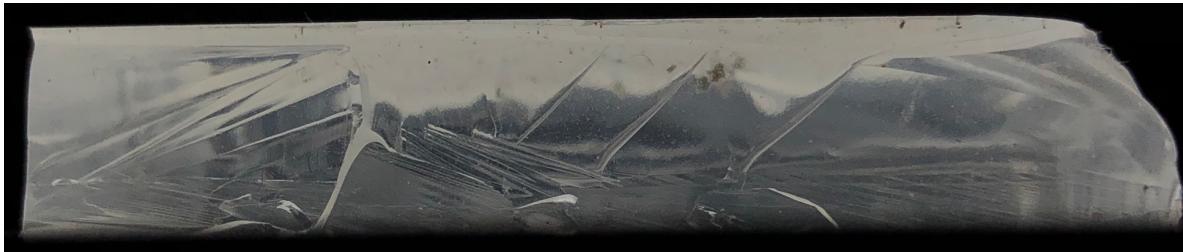
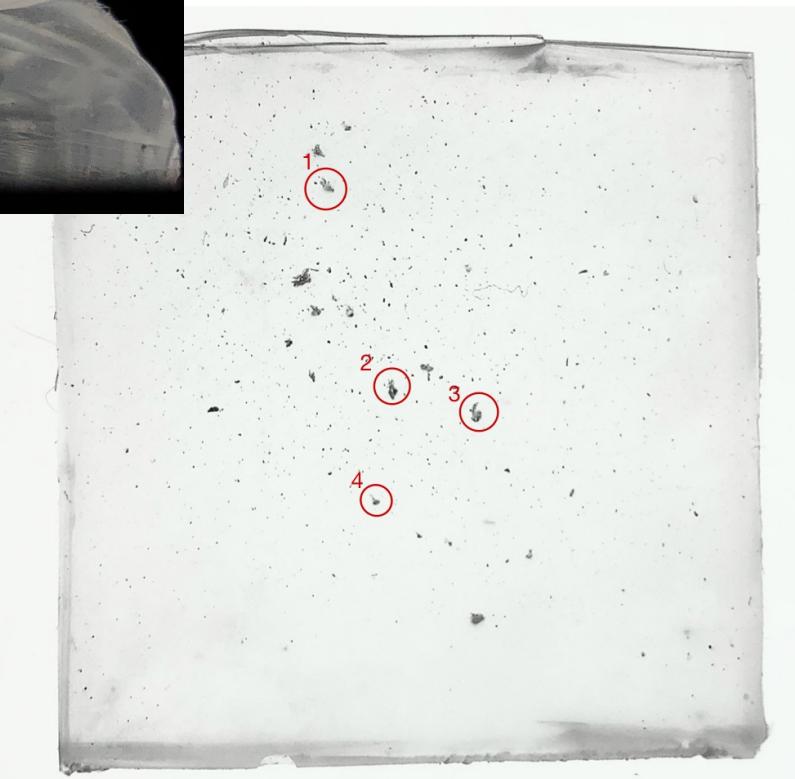
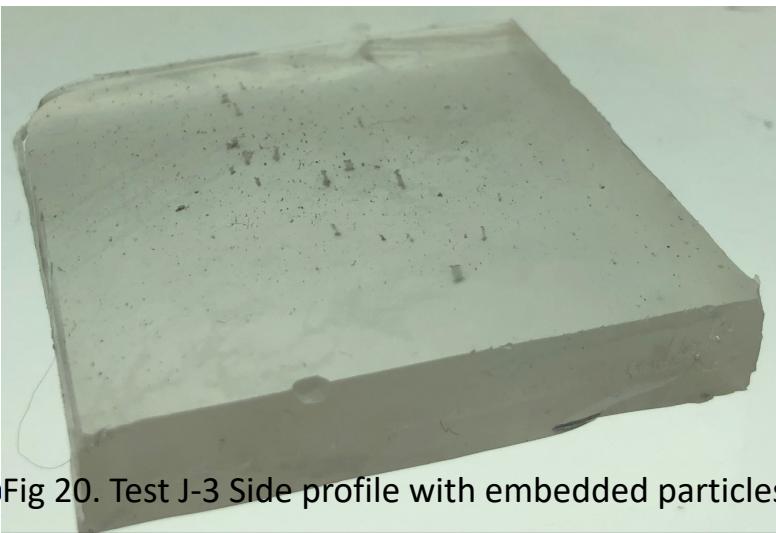
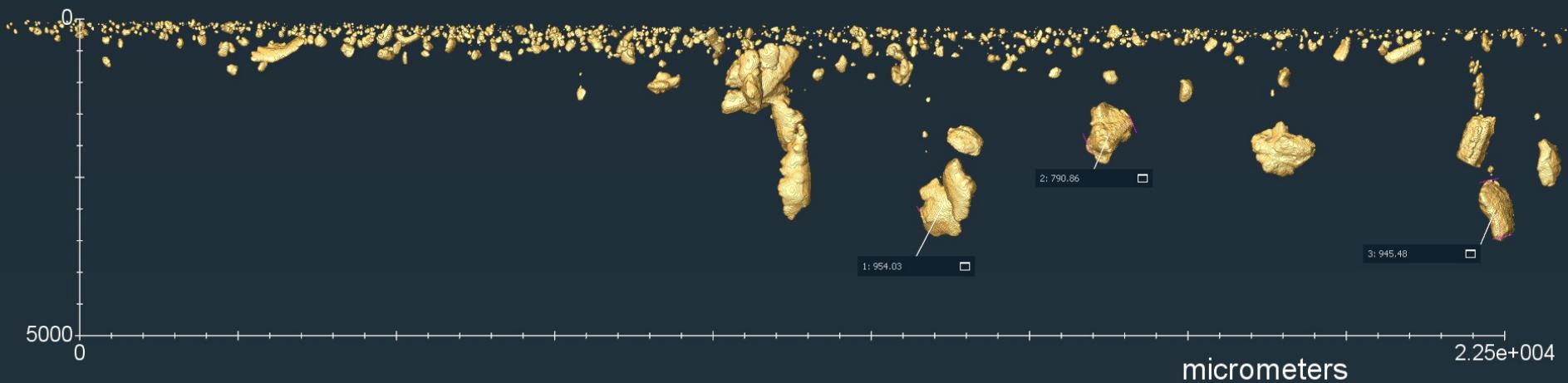


Fig 19. Test J-3 Side profile with embedded particles

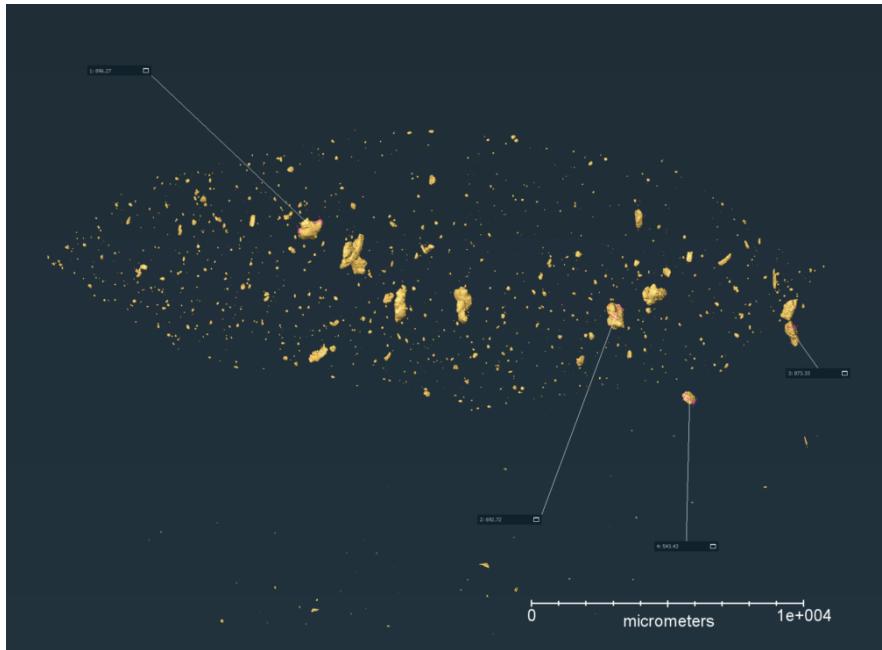


Surface rendering of the J-3 embedded particles

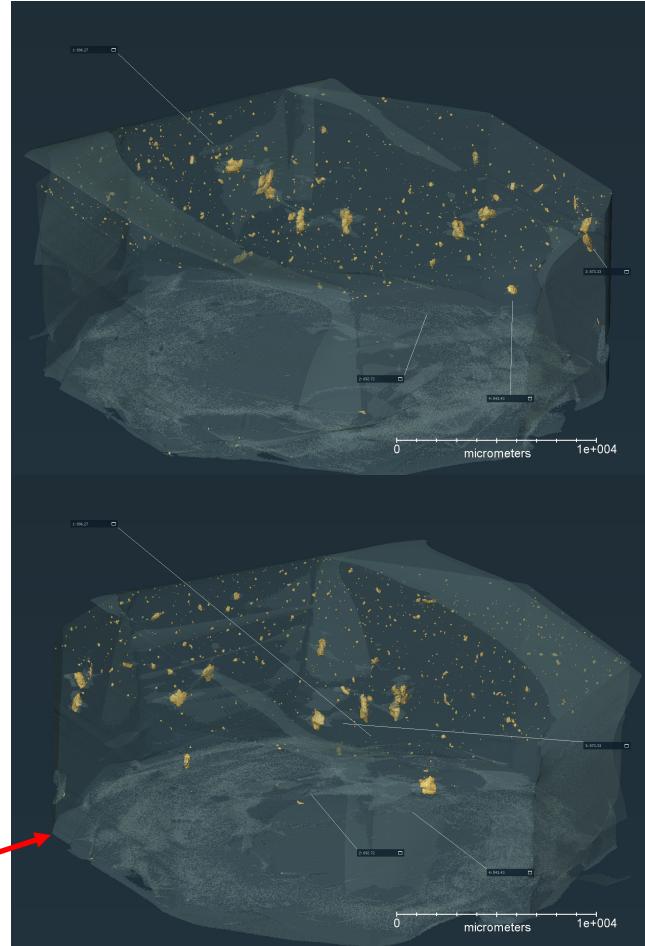


Side orientation looking from the bottom side of the optical image. No parallax. Particles 1-3 are labeled.

Test Series J-3 volume rendering and movie



NB: This is not the entire thickness of the sample;
the bottom was cropped.



Test R-1.5: PDMS Optical Photographs



Fig 1. Test R-1.5 Side profile with embedded particles

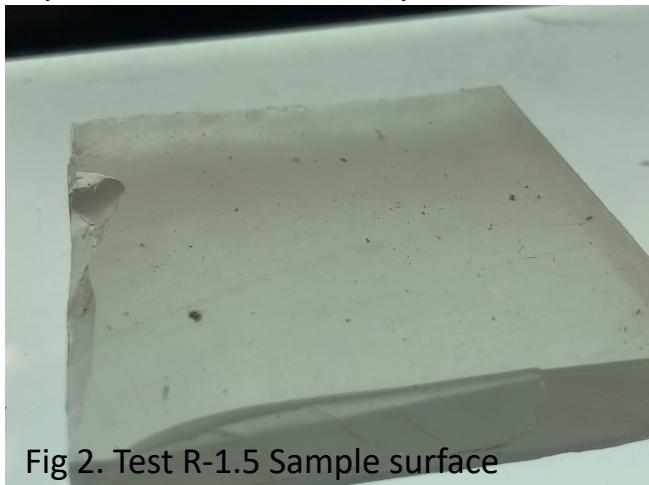


Fig 2. Test R-1.5 Sample surface

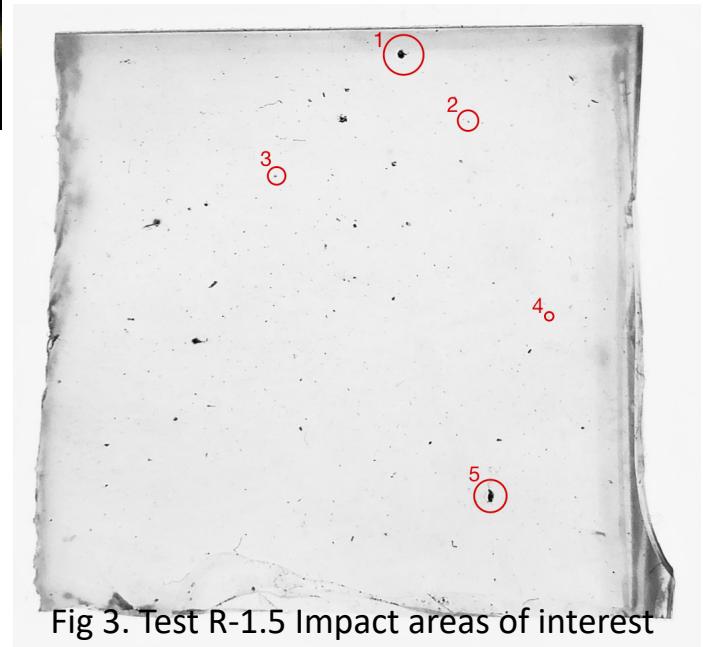
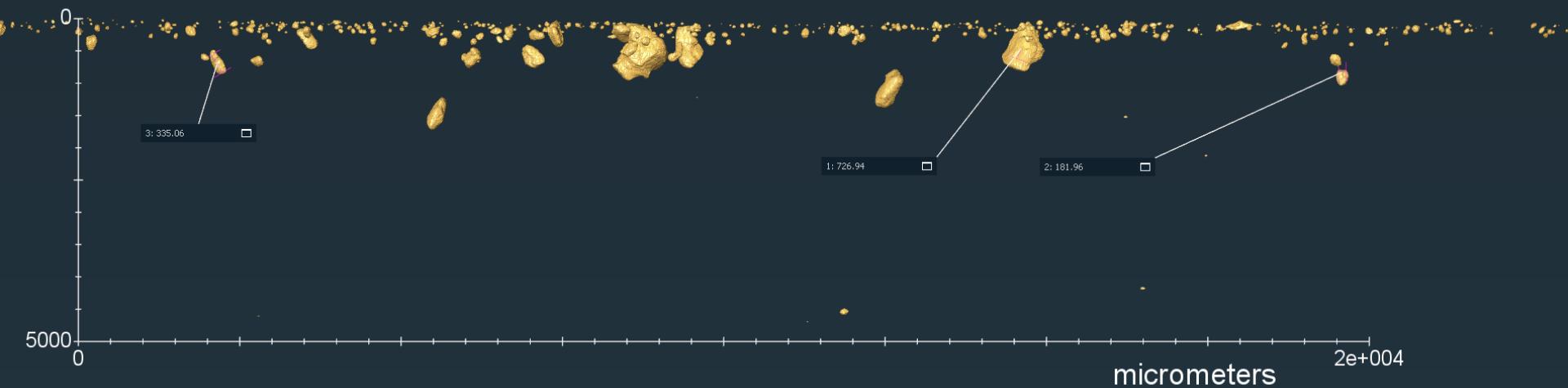


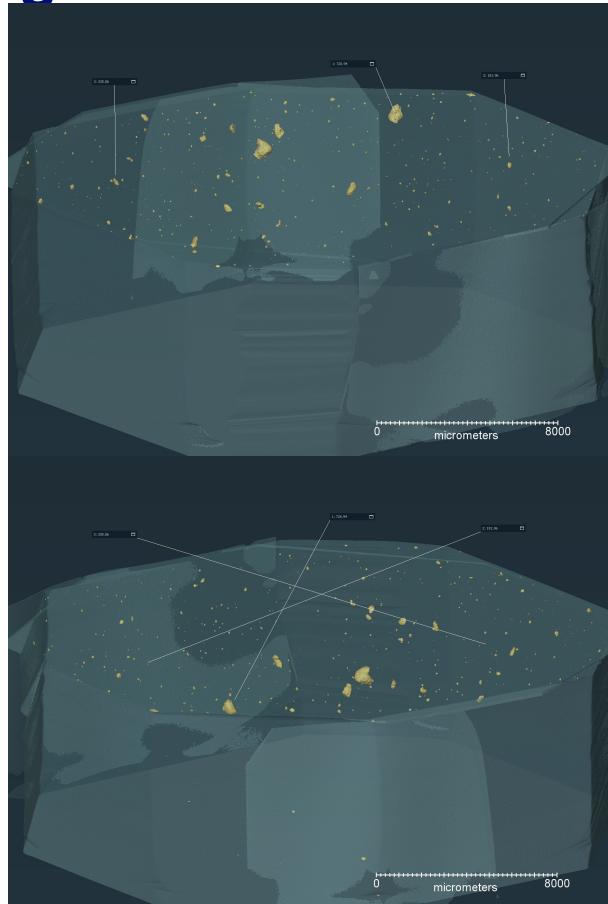
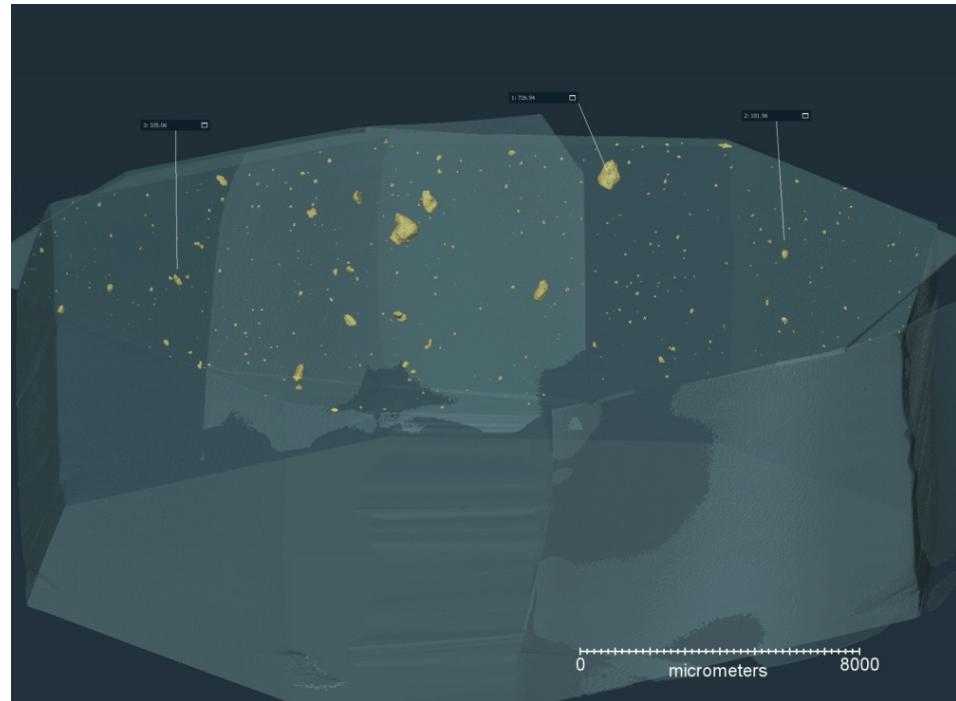
Fig 3. Test R-1.5 Impact areas of interest

Surface rendering of the R-1.5 embedded particles



Side orientation looking from the bottom side of the optical image. No parallax. Particles 1-3 are labeled.

Test Series R-1.5 volume rendering and movie



Quick results

- J-3 has larger particles, embedded further into the PDMS.