

Absorption Test

ITM03/11 Witness sample

SN1549

LMA Run Reference C13074/13

Microscopy/absorption test/Microscopy

Billingsley/Zhang

December 2019

HR ITM03/11

Absorber is located in the
large circle.

Non-absorber in the small
circle

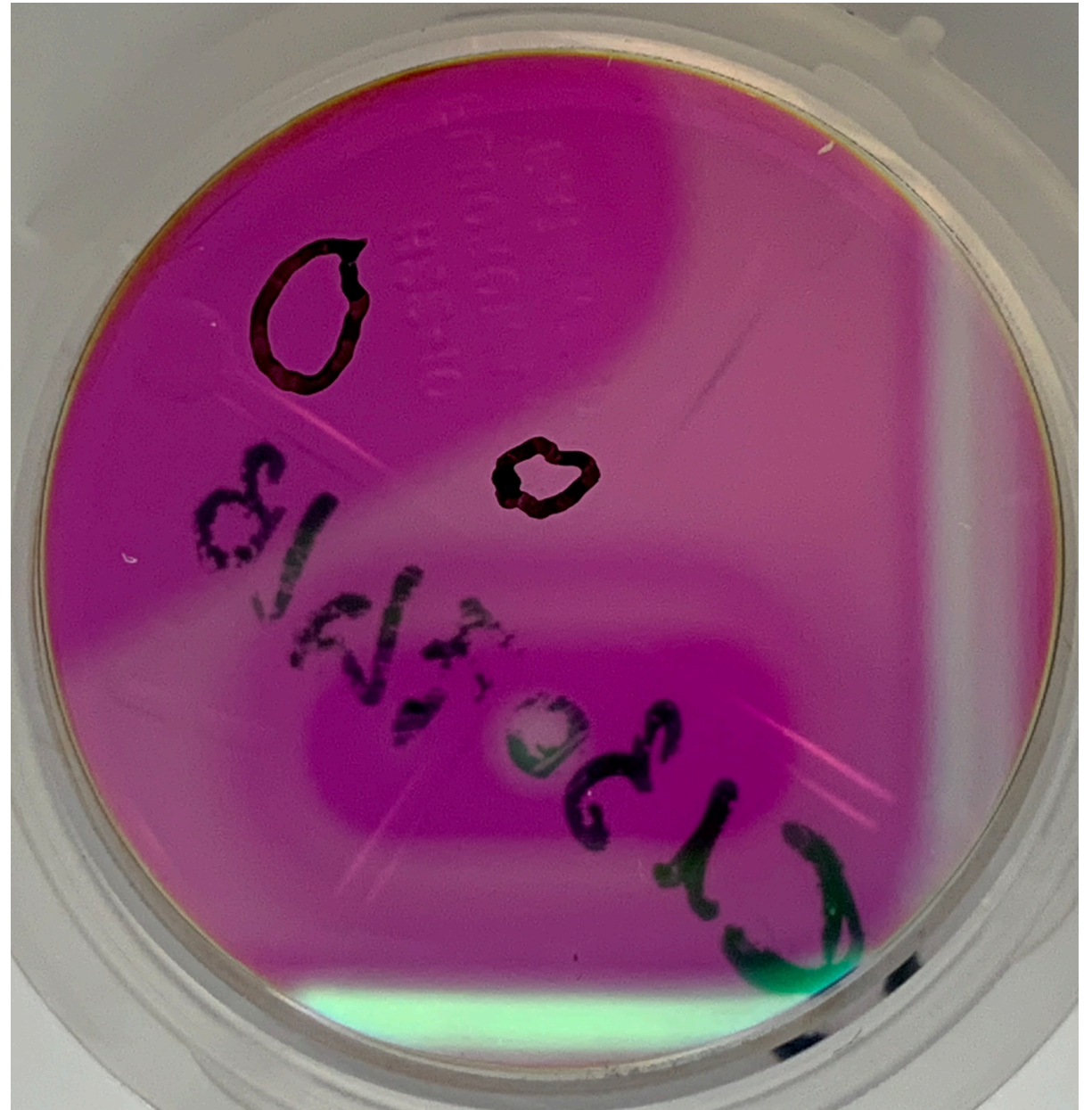
Image S1, Arrow down.

SN1549

LMA ref C13074/13

We believe the /13 refers to
the position in the coating
chamber.

Text is on the container



C13074/13 witness (sn:1549, ↑@-Y)

HR absorption ($\phi_{\text{beam}} = 0.3 \text{ mm}$, Step= 0.3 mm)

(ppm)

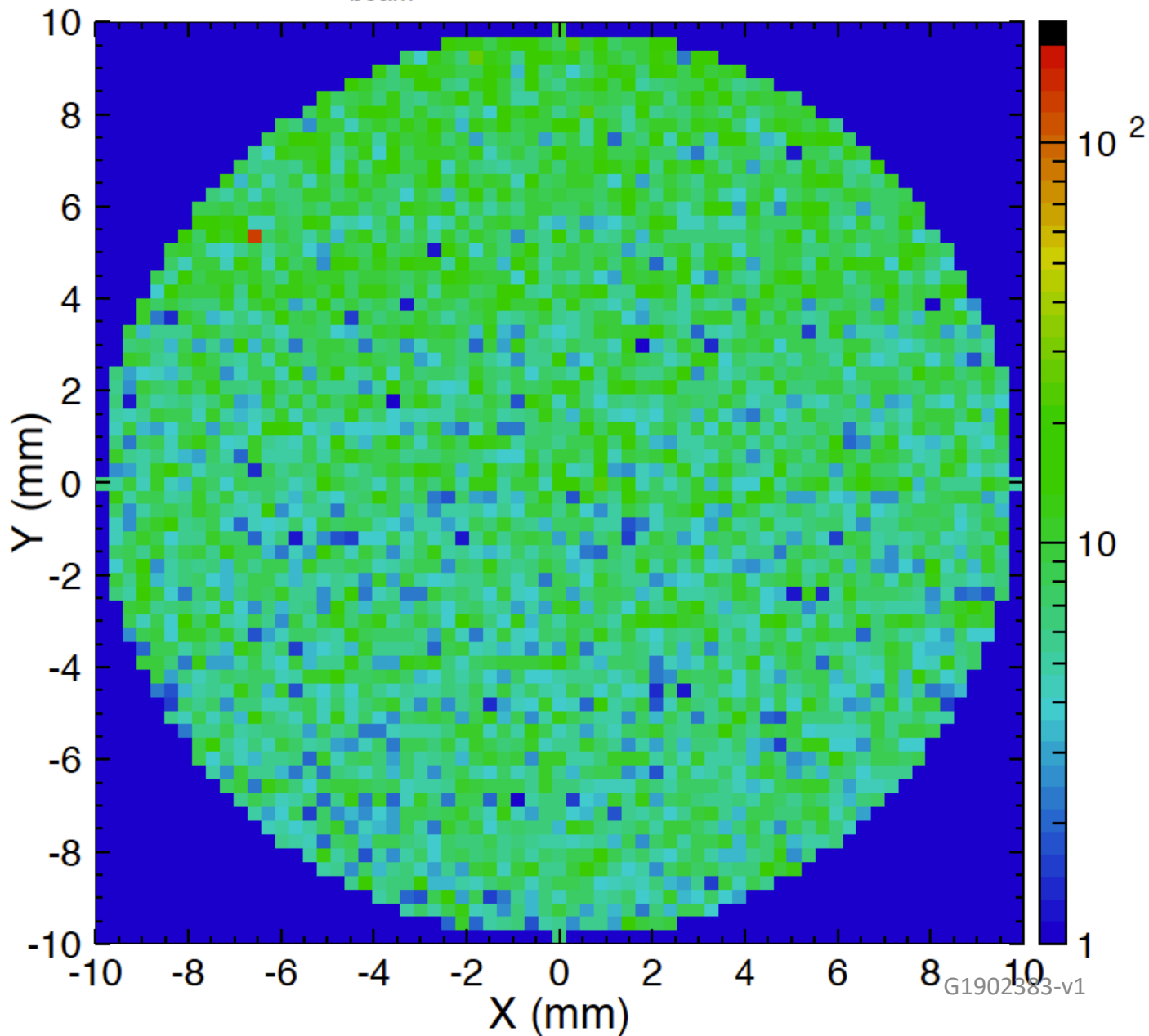
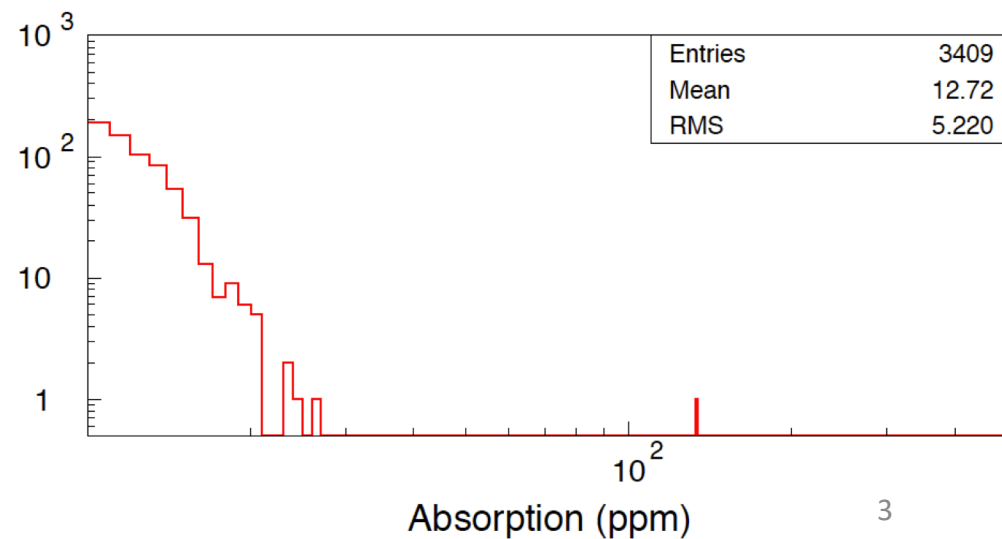
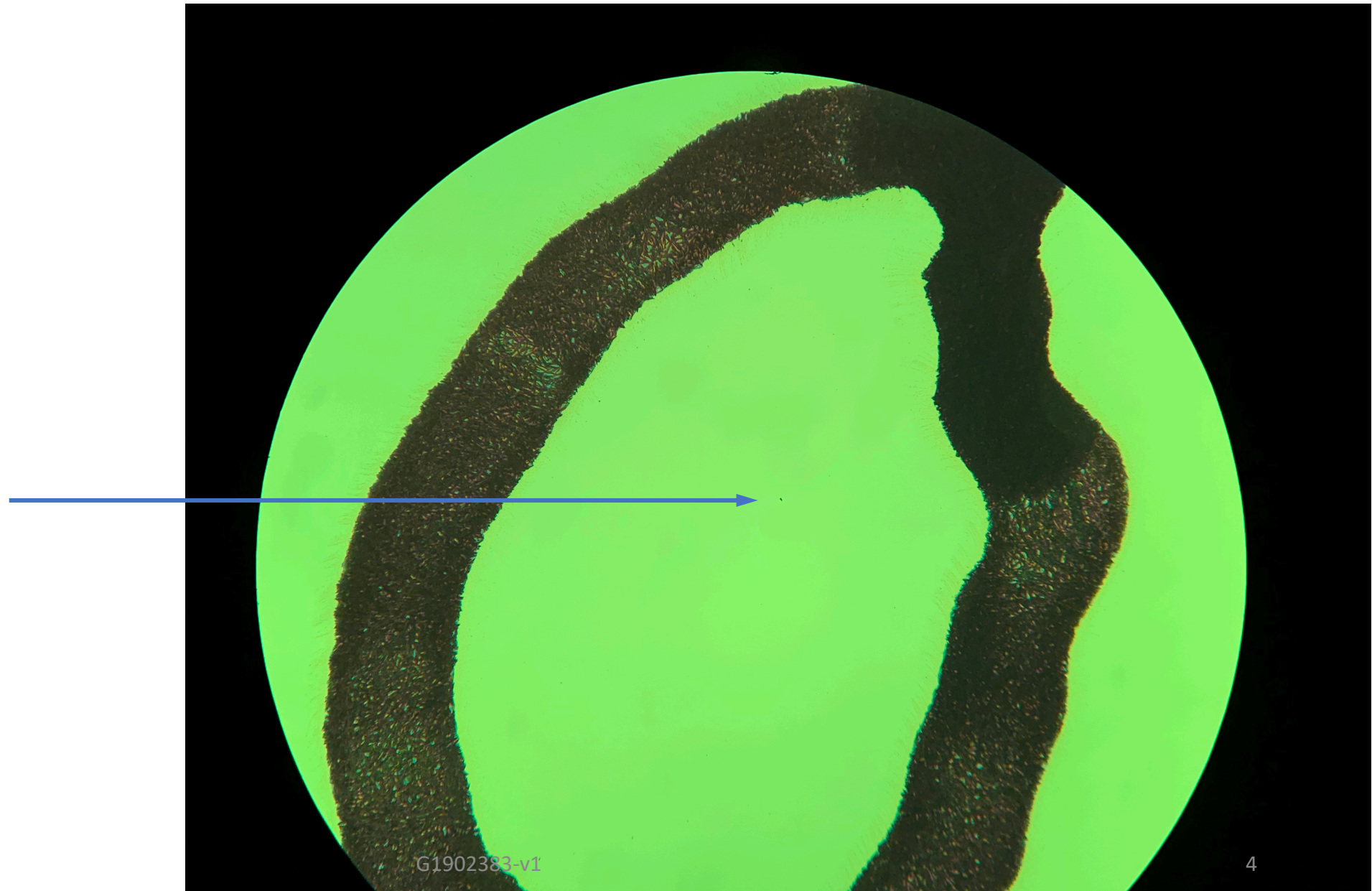


Image arrow at -Y



Close up of absorber circle/position

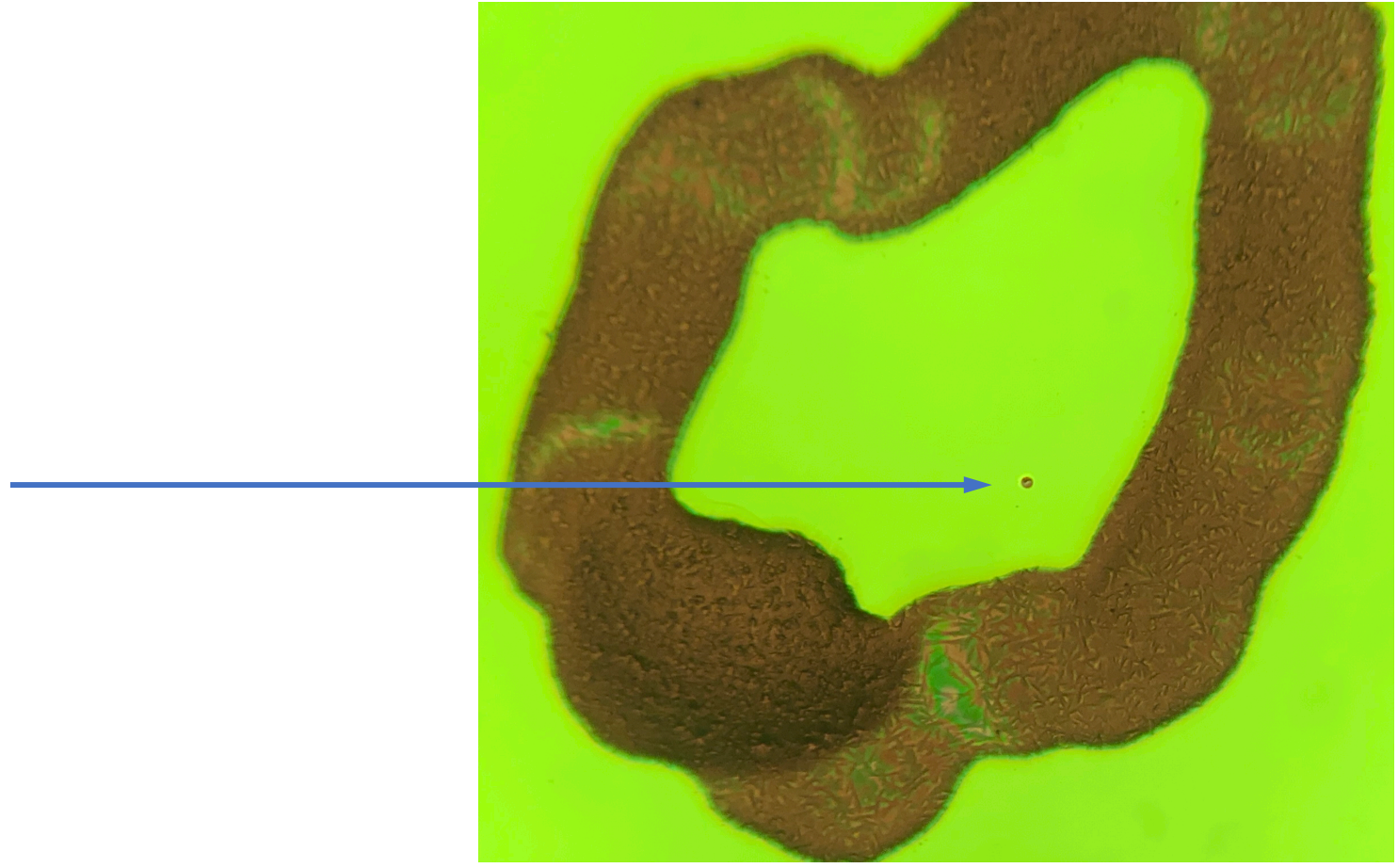


Absorber $\sim 13 \mu\text{m}$ long

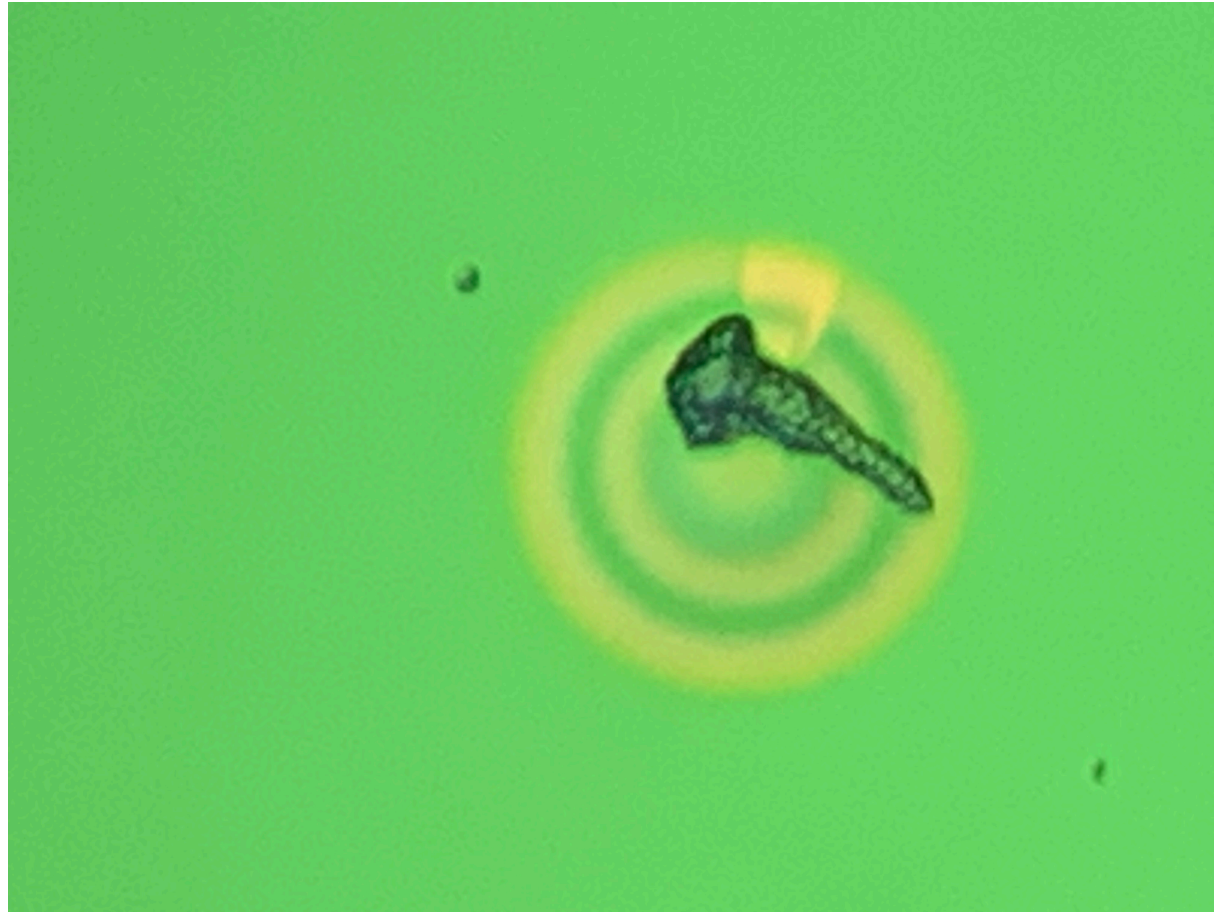


Many other things not absorbing
Following are images of things in the scan
area that did not register as absorbing.

Location of the “bubble” non-absorber inside the smaller circle



Non absorbing roughly 25 μm long no change in appearance before/after Abs. scan

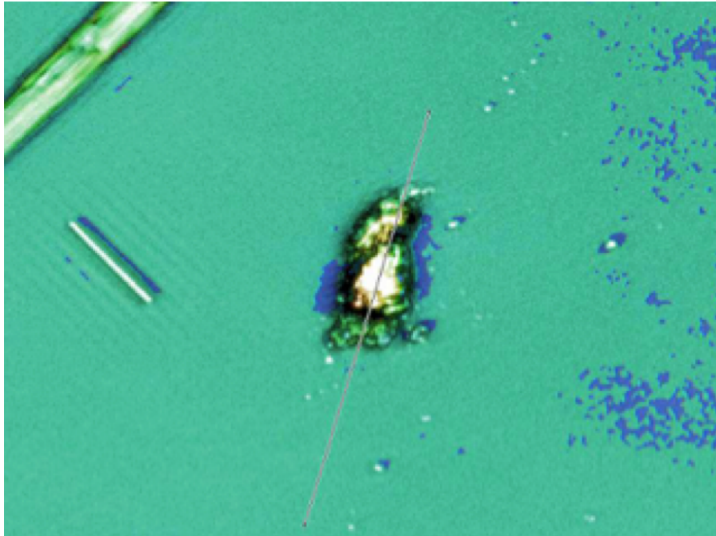


Non Absorbing. Roughly $10\mu\text{m}$ long

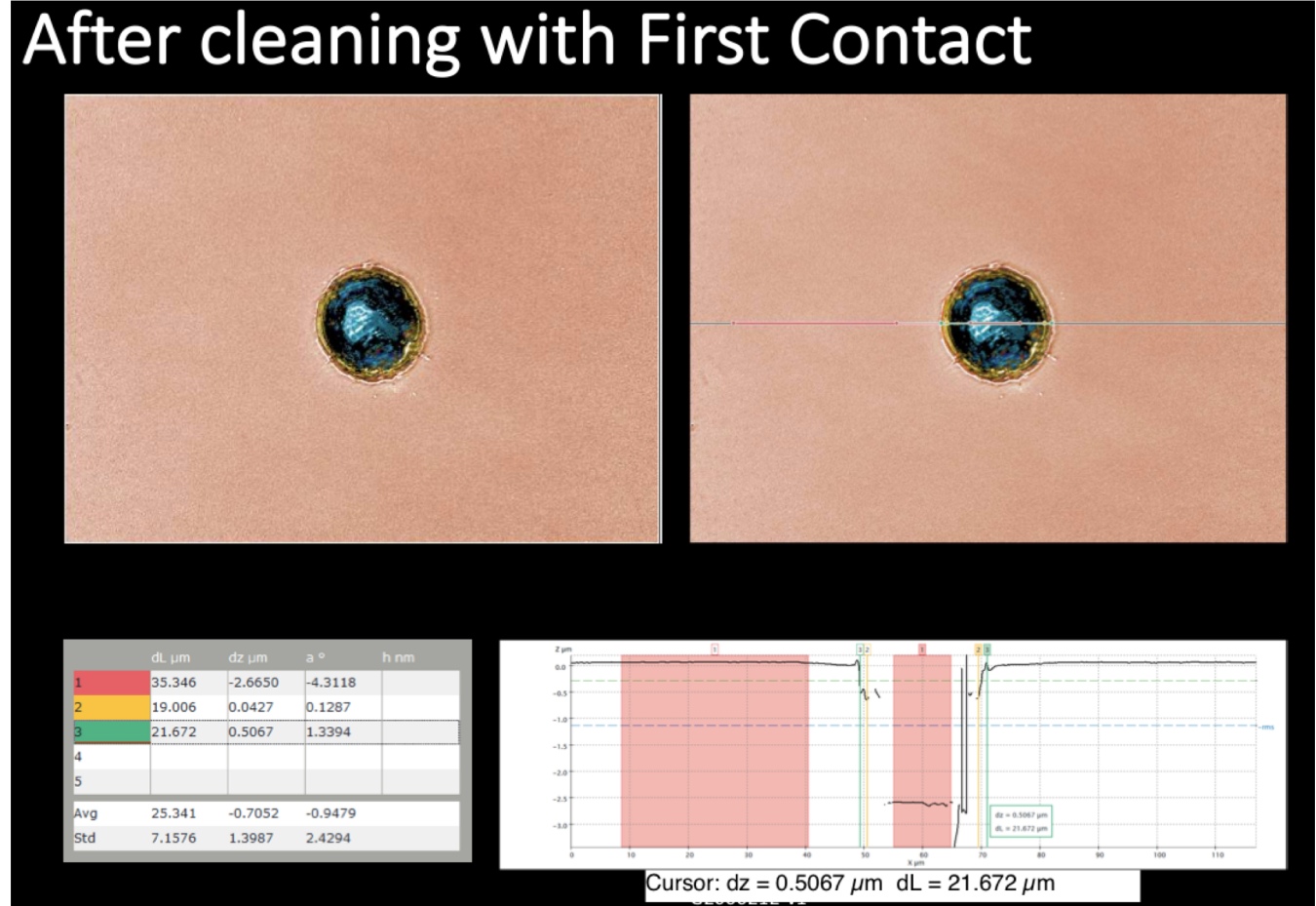


See G2000212 for micromachining tests.

- Absorber Before



- Absorber after →



Keyence images post ablation on the next slides

For comparison – do we need a Leica confocal microscope to determine success?

6:33:55 PM
2020/02/21



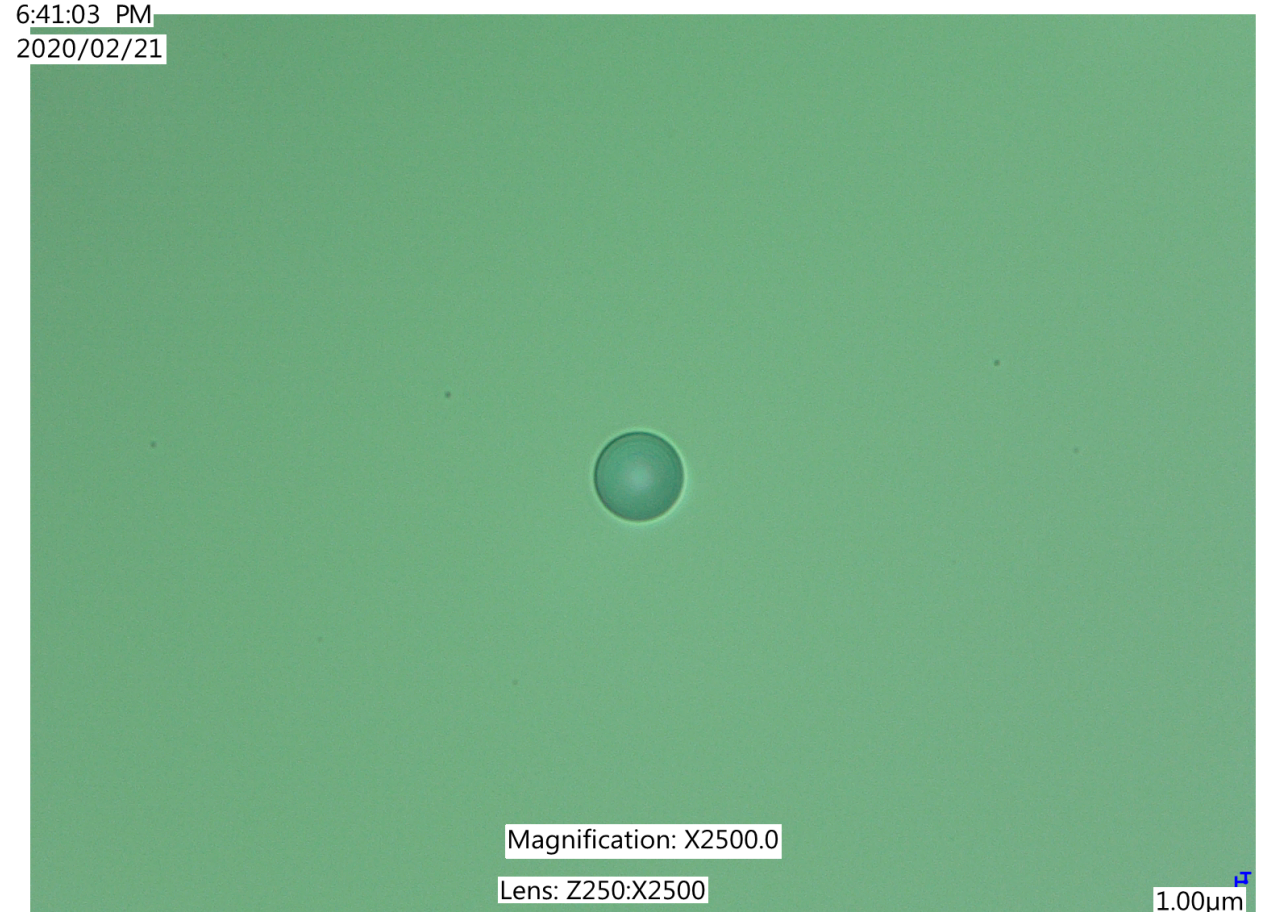
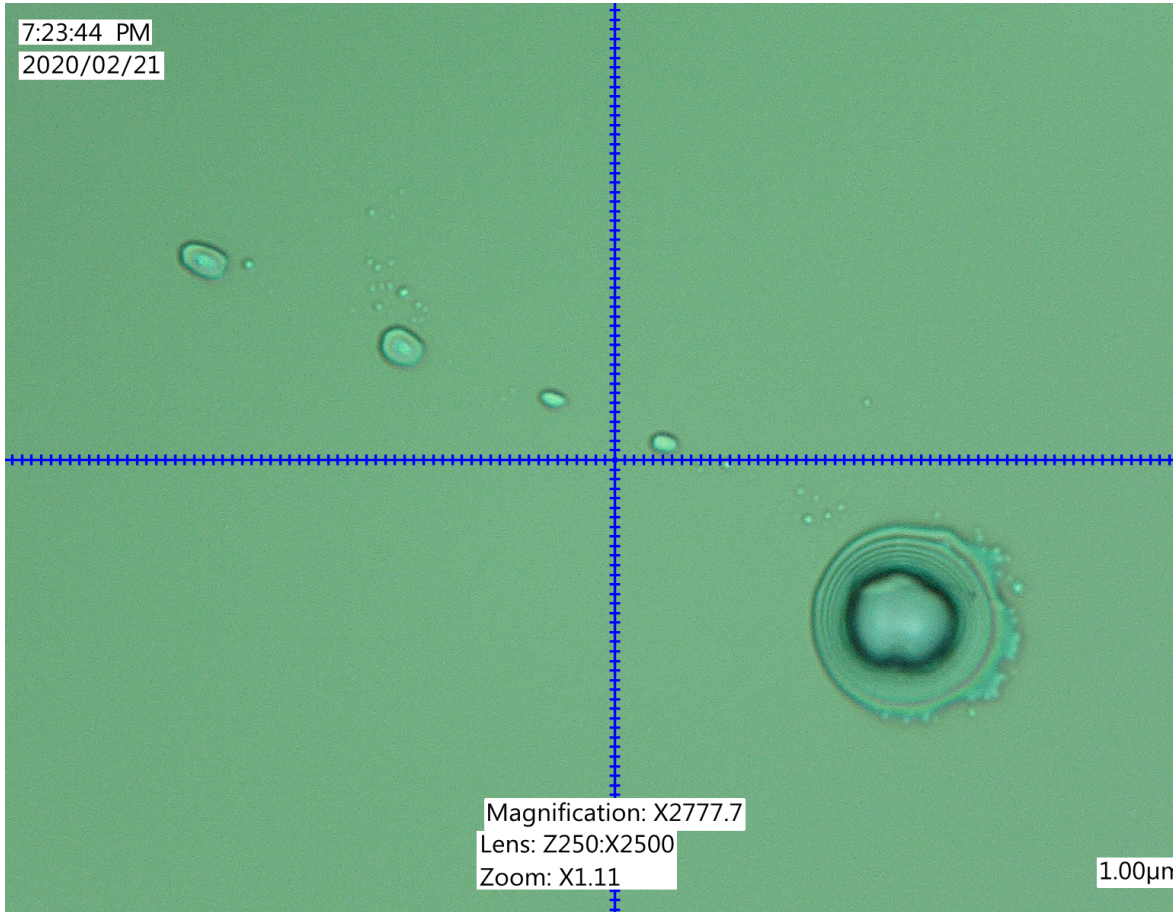
Magnification: X300.0

Lens: Z250:X300

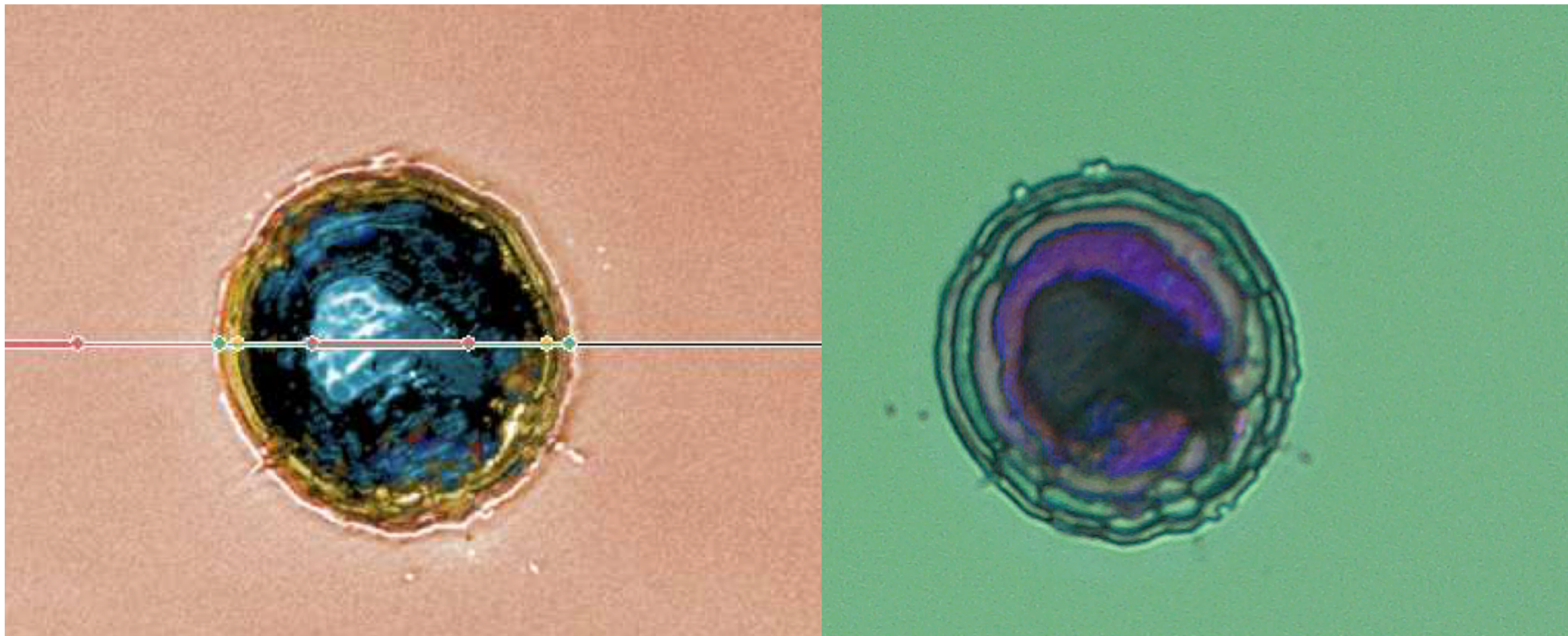
G1902383-v1

10.00μm

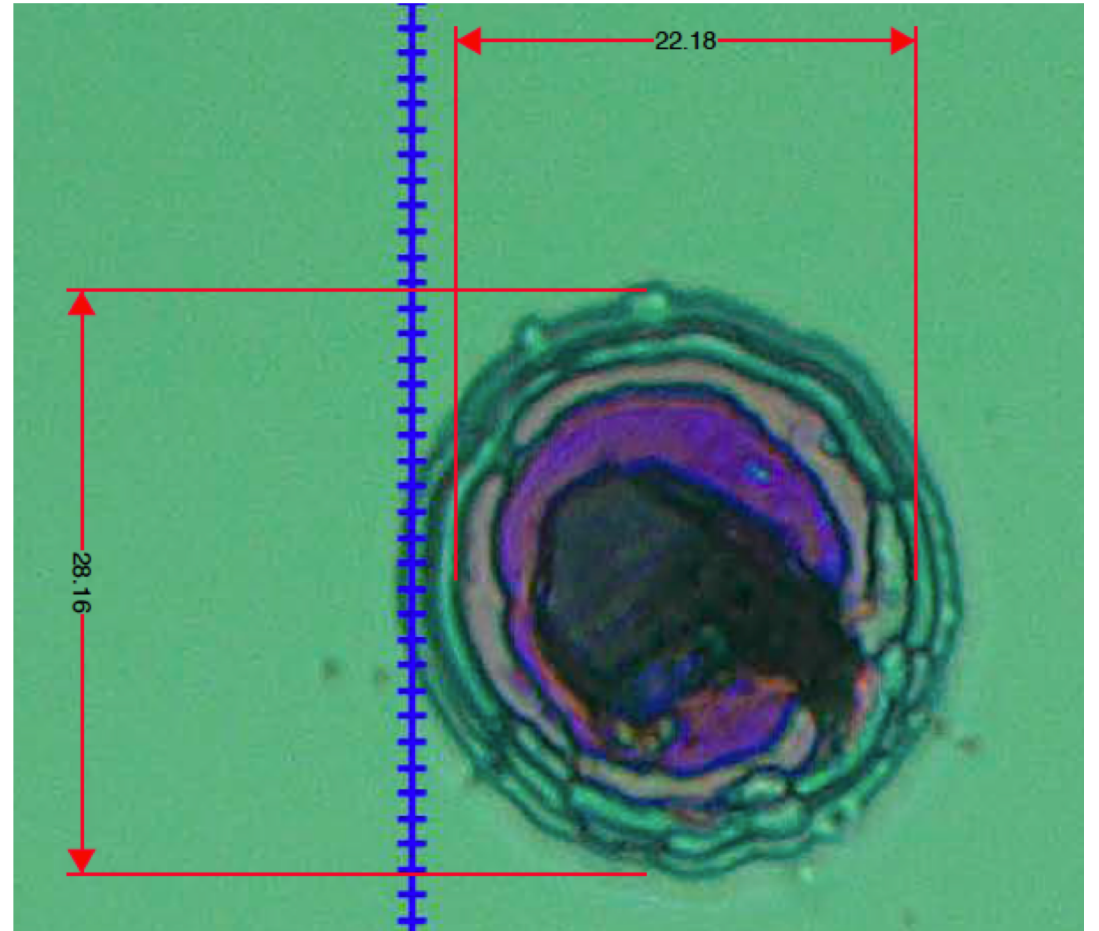
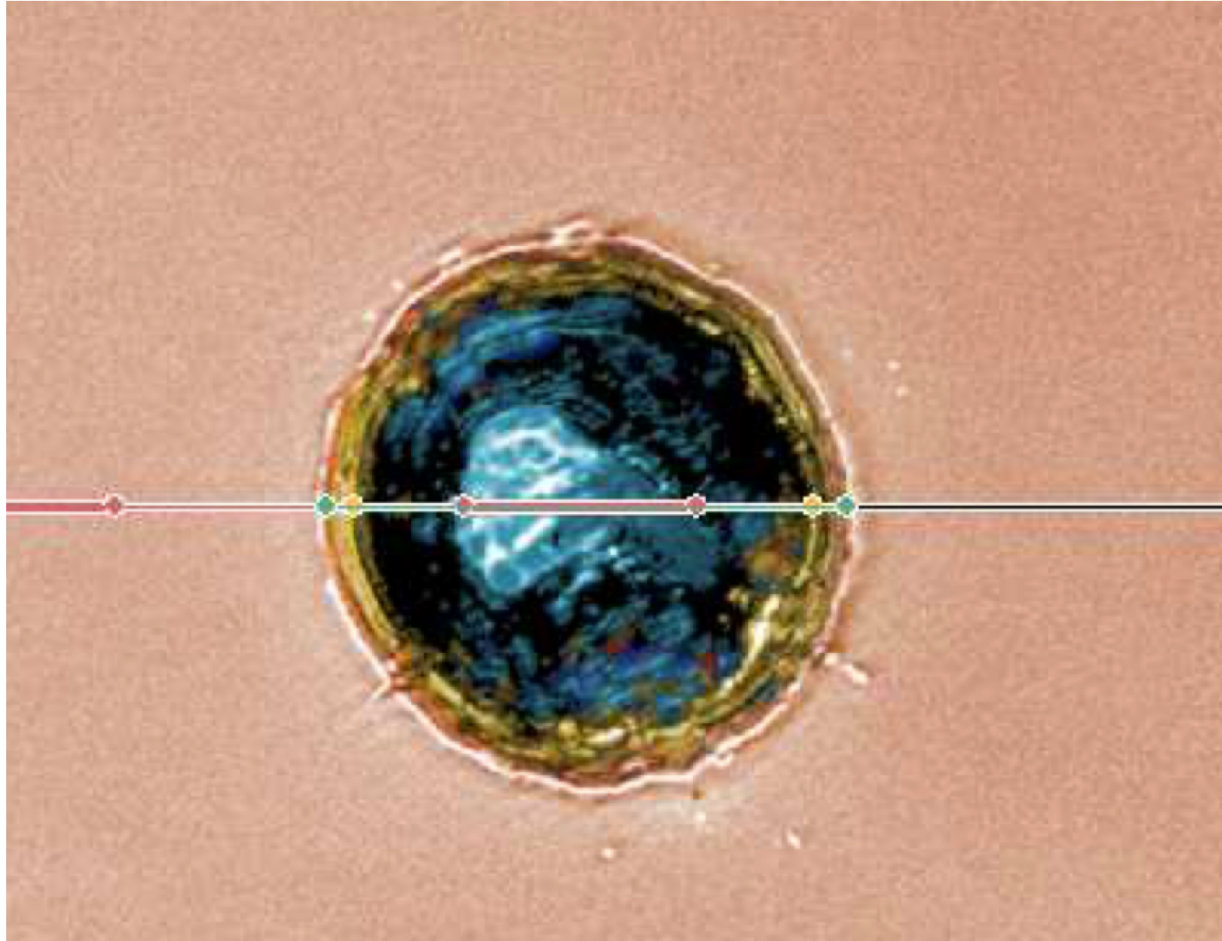
Also found near the arrow



Large spot found in the zone where the absorber was.



21.67 μm green dots, 22.16 μm horizontal on Keyence



No surrounding scatter appears in dark field view

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2020/02/21

