BOLOGNA STATUS REPORT

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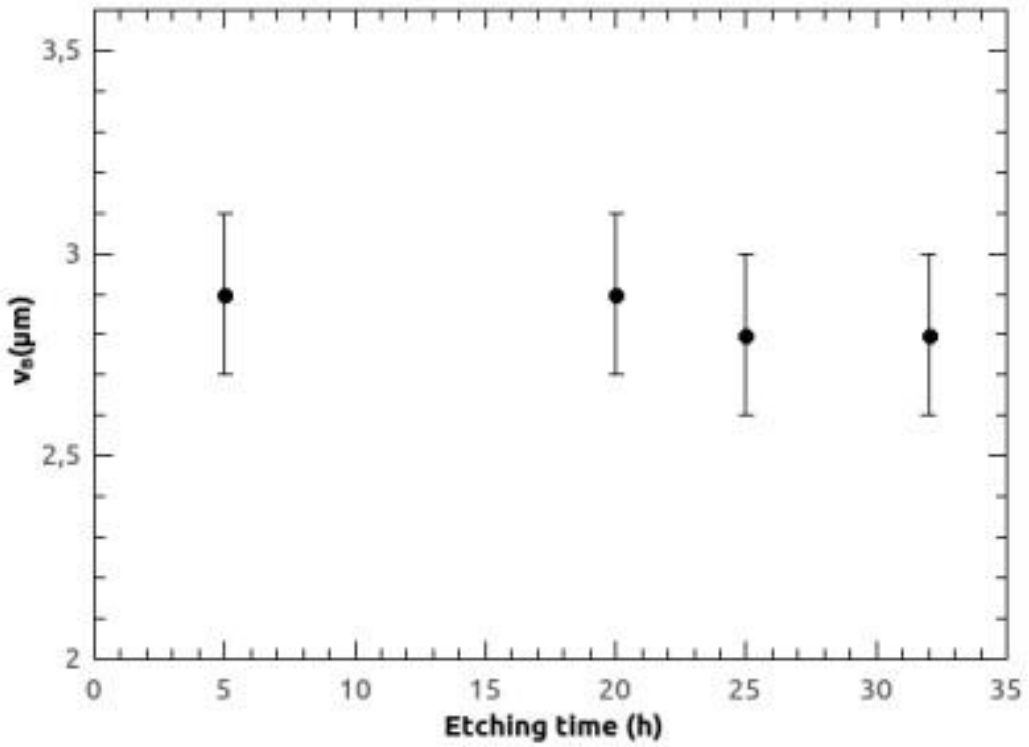
LHC RUN Moedal Exposure	EXPOSED AREA	ETCHED AREA	SCANNED AREA	ETCHNG Completion	SCANNING Completion
2009-2012	7.8 m^2	7.8 m^2	7.8 m^2	✔	✔
2014-2015	*Standard stacks*: 10.7 m^2 *HCC stacks*: 6.2 m^2	10.7 m^2 6.2 m^2	9.0 m^2 1.5 m^2	✔	
2016-2017	*Standard stacks*: 11.2 m^2 *HCC stacks*: 9.7 m^2	8.7 m^2 -	- -	end February, 2019	

- ***Standard stacks:*** **24 cm x 24 cm**
- ***HCC stacks:*** **180 cm x 45 cm**

ETCHANT + ETCHING CONDITIONS:

5.5N KOH + 20% denatured Ethanol at 45°C

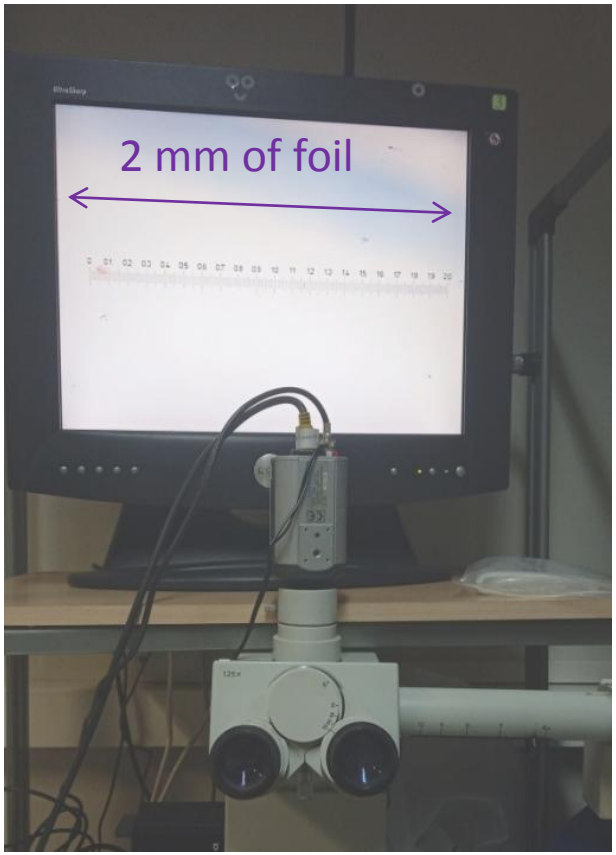
Bulk etching rate stability
0 – 5 h
5 – 20 h
20 - 25 h
25 - 32 h



- v_B fairly stable over > 30 h etching
- Improvement of the etch-pit quality (scope for “faster” scanning)

“Faster” scanning with Stereo Microscope

A) Quantitatively



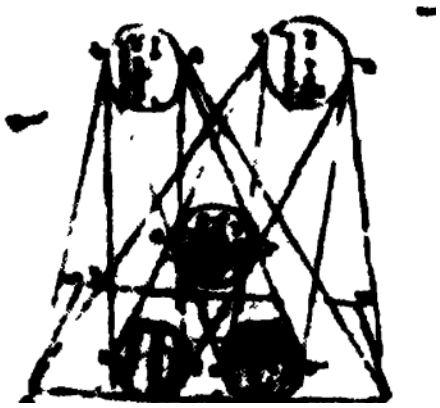
32x magnification:
FoV≈ 2 mm x 2 mm

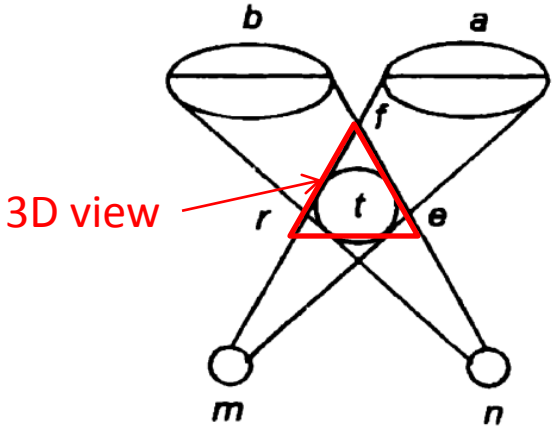
12.5x magnification:
FoV≈ 1 cm x 1 cm

Field of view: **25 times more**

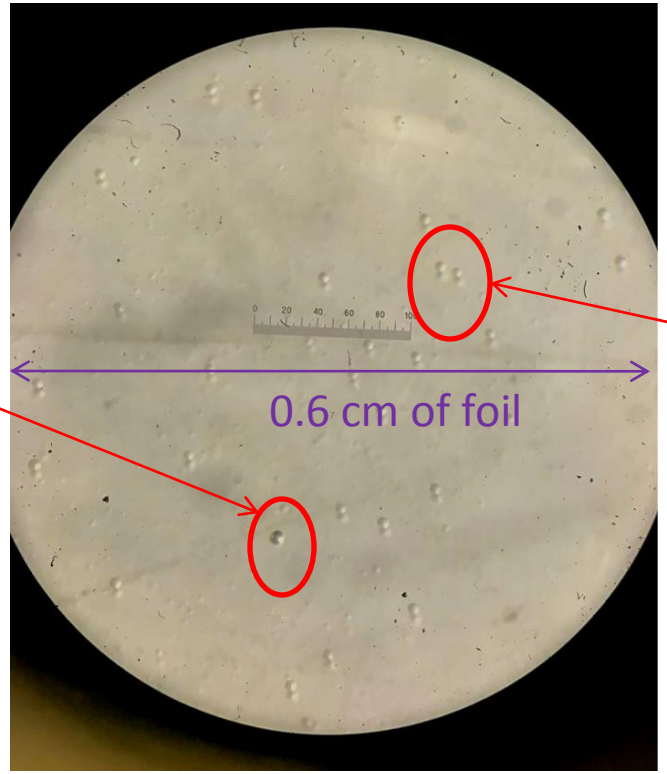
“Faster” scanning with Stereo Microscope

B) Qualitatively





Picture adapted from “Leonardo’s Notebook”



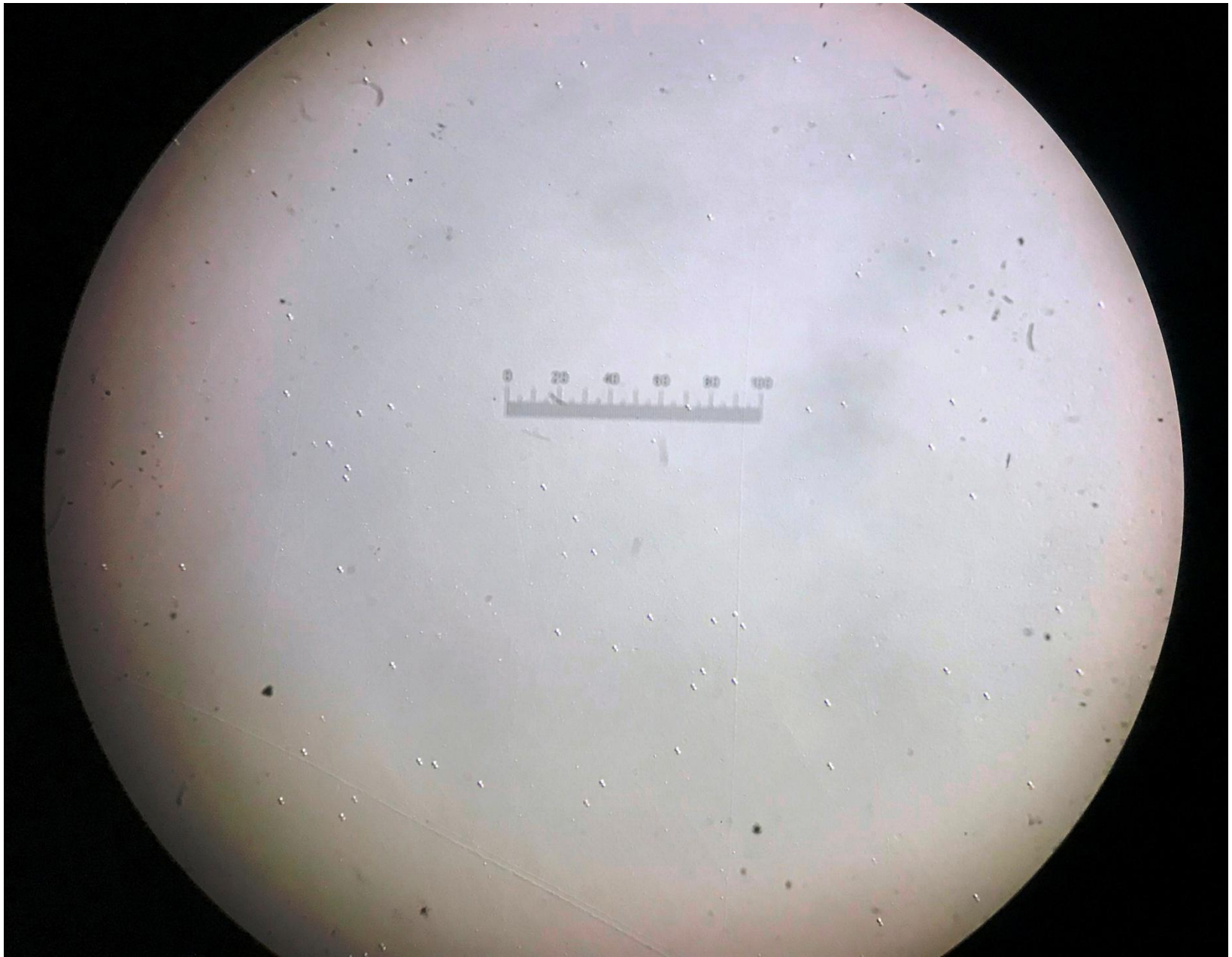
Xe tracks on Makrofol after 20 h of etching

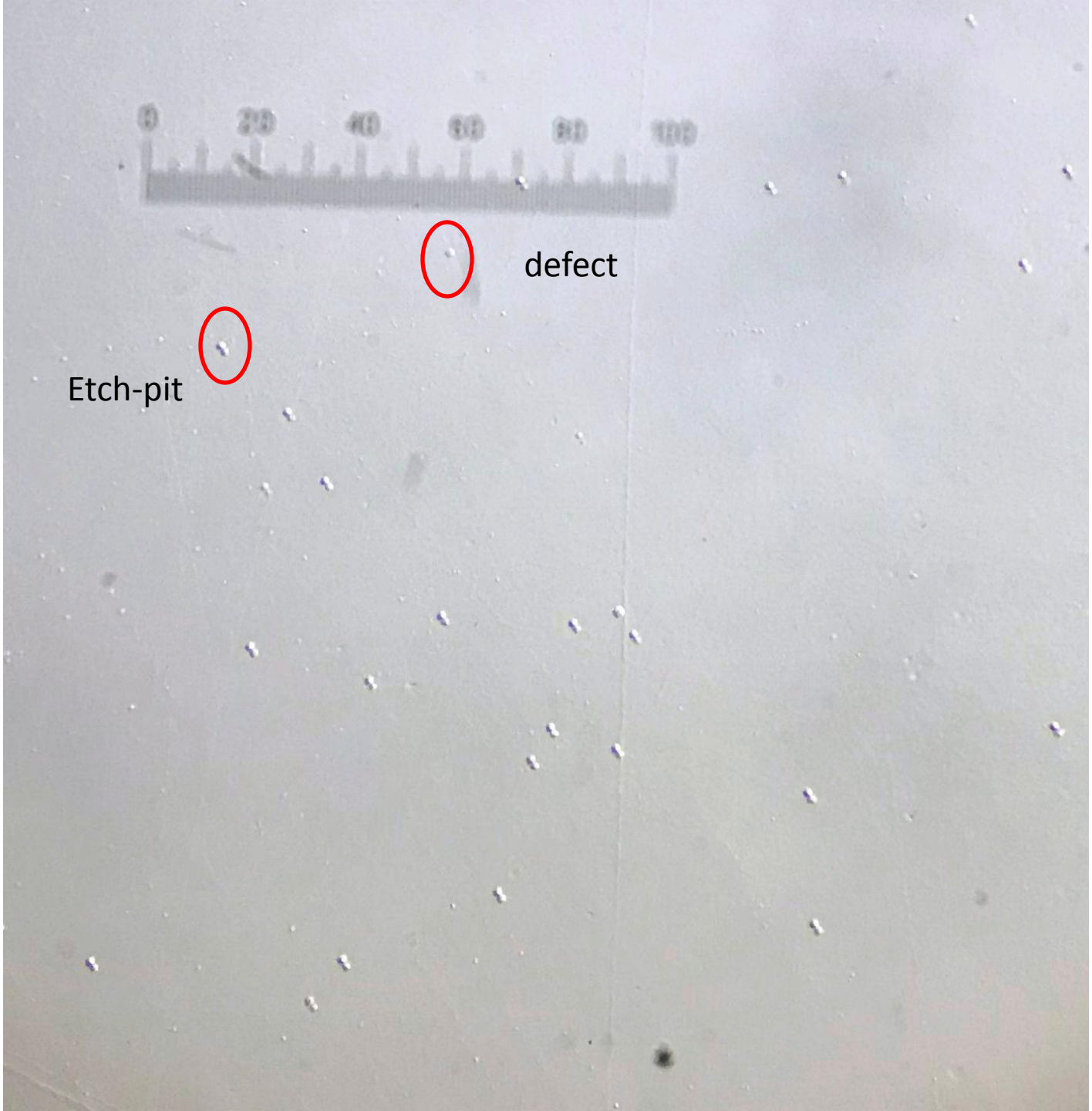
Magnification 20x

By observing both sides simultaneously, “true” tracks can be distinguished easily from defects


thank you!

Xe tracks on 15 h etched Makrofol at 12.5x magnification




defect
Etch-pit