

Order of exposure:

A1-A5

B1-B5

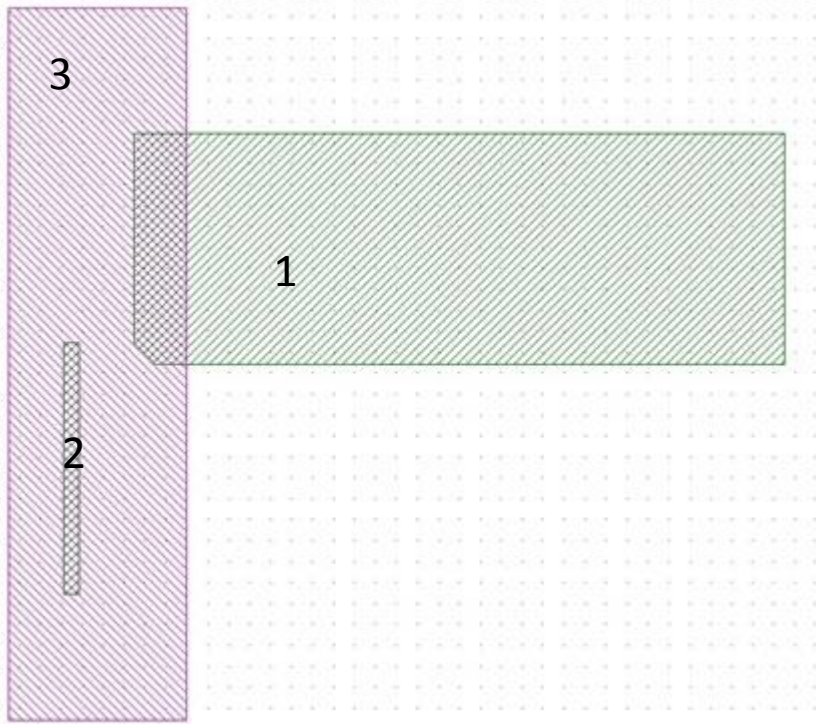
...

G1-G5

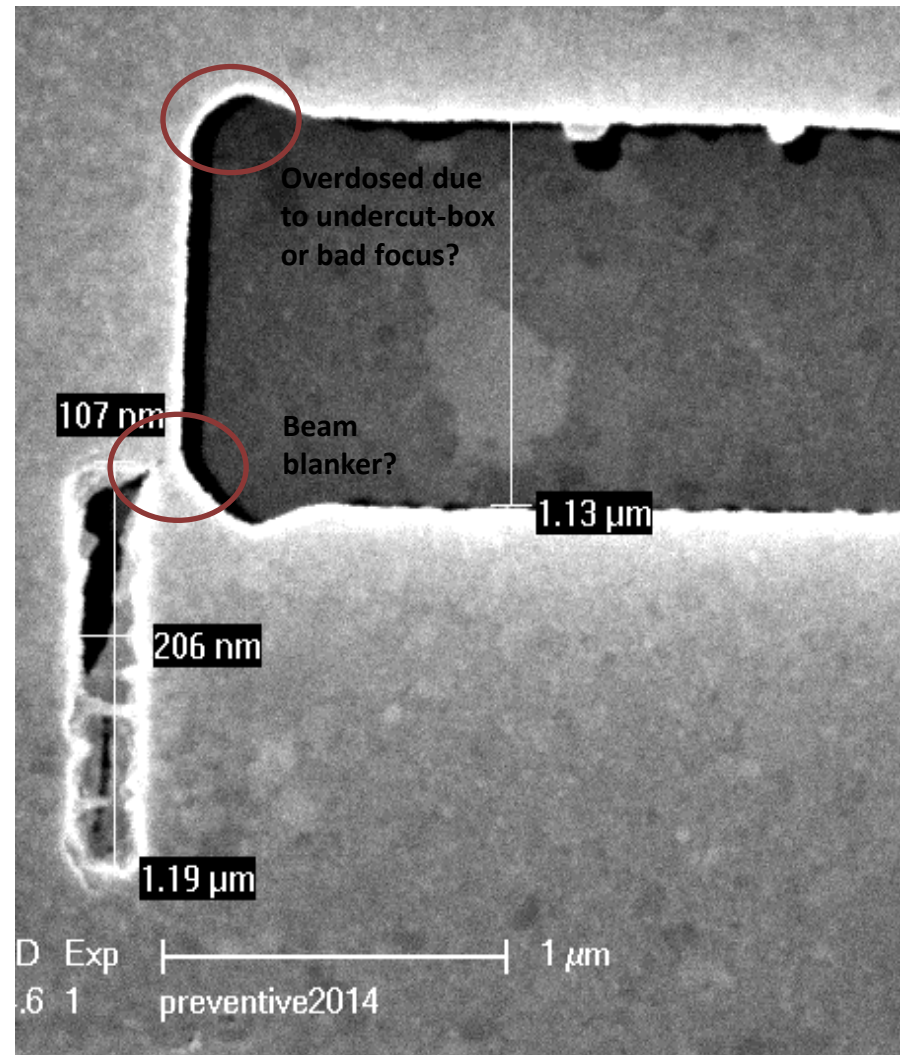
For each design the order of exposure is shown on the next slides.

Note: the green areas were all exposed first before writing the violet (undercut) shapes.

A1 on blanker position 2. Typical image.

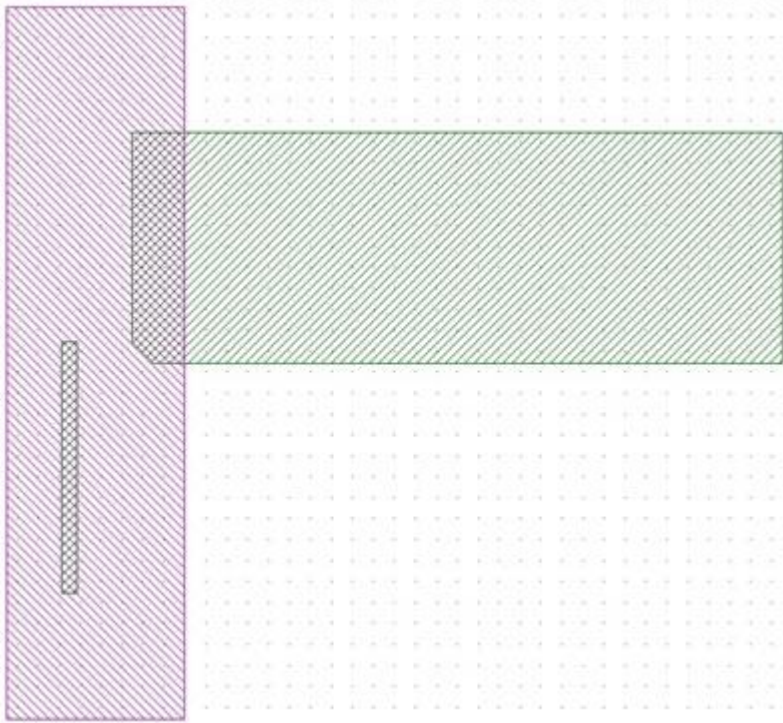


Grid distance is 100 nm.

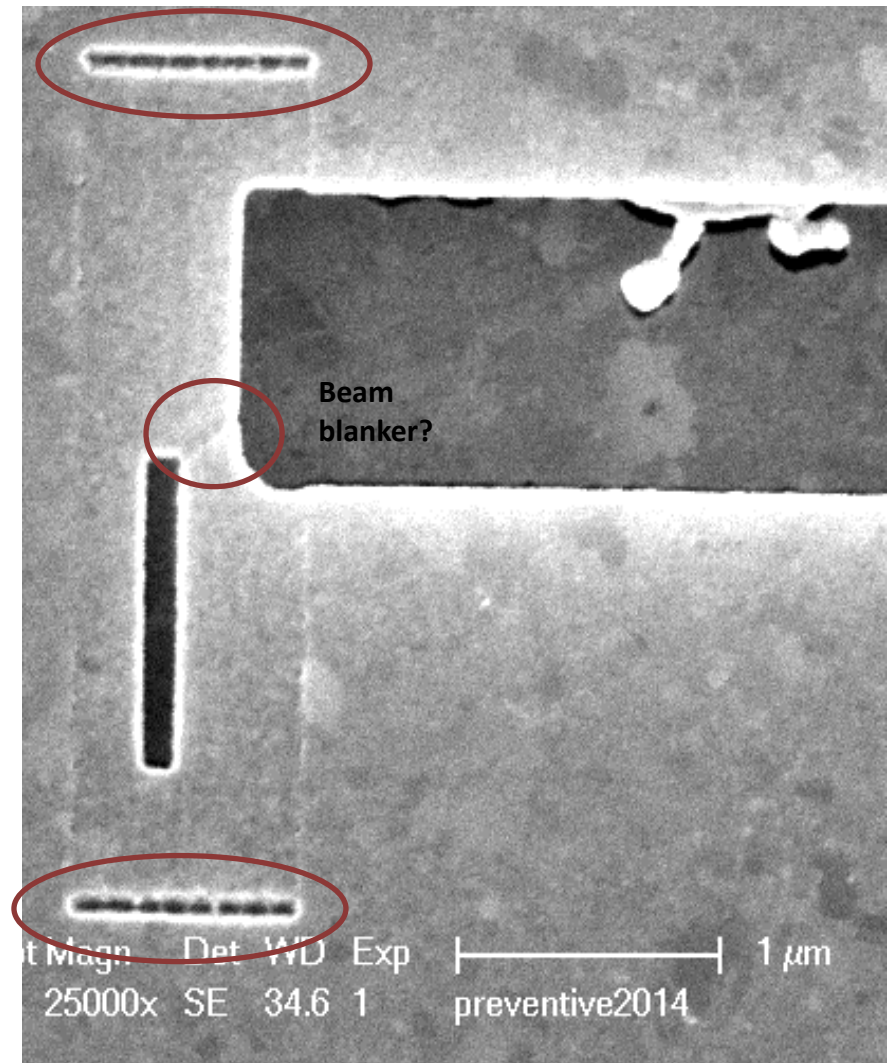


A1 on blanker position **3**. Typical image.

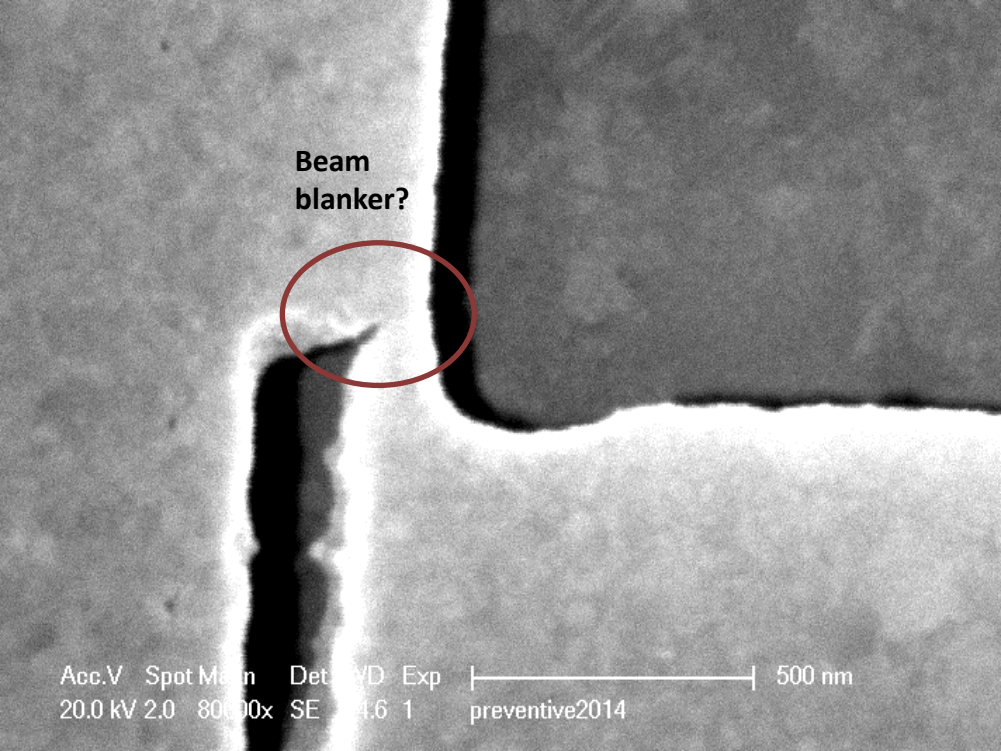
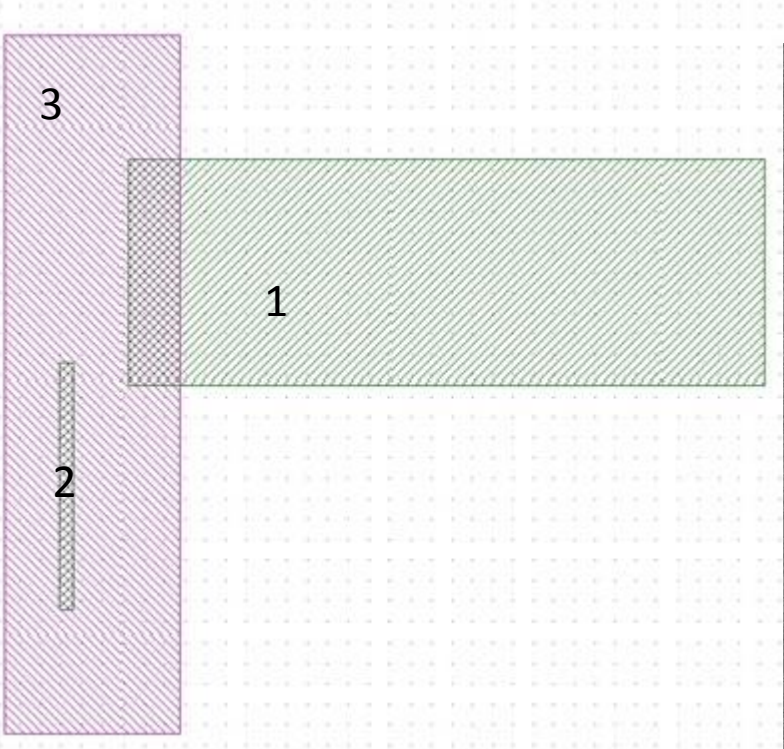
Meander mode decreases beam speed at the edges of the undercut-box and therefore increases the dose?



Grid distance is 100 nm.

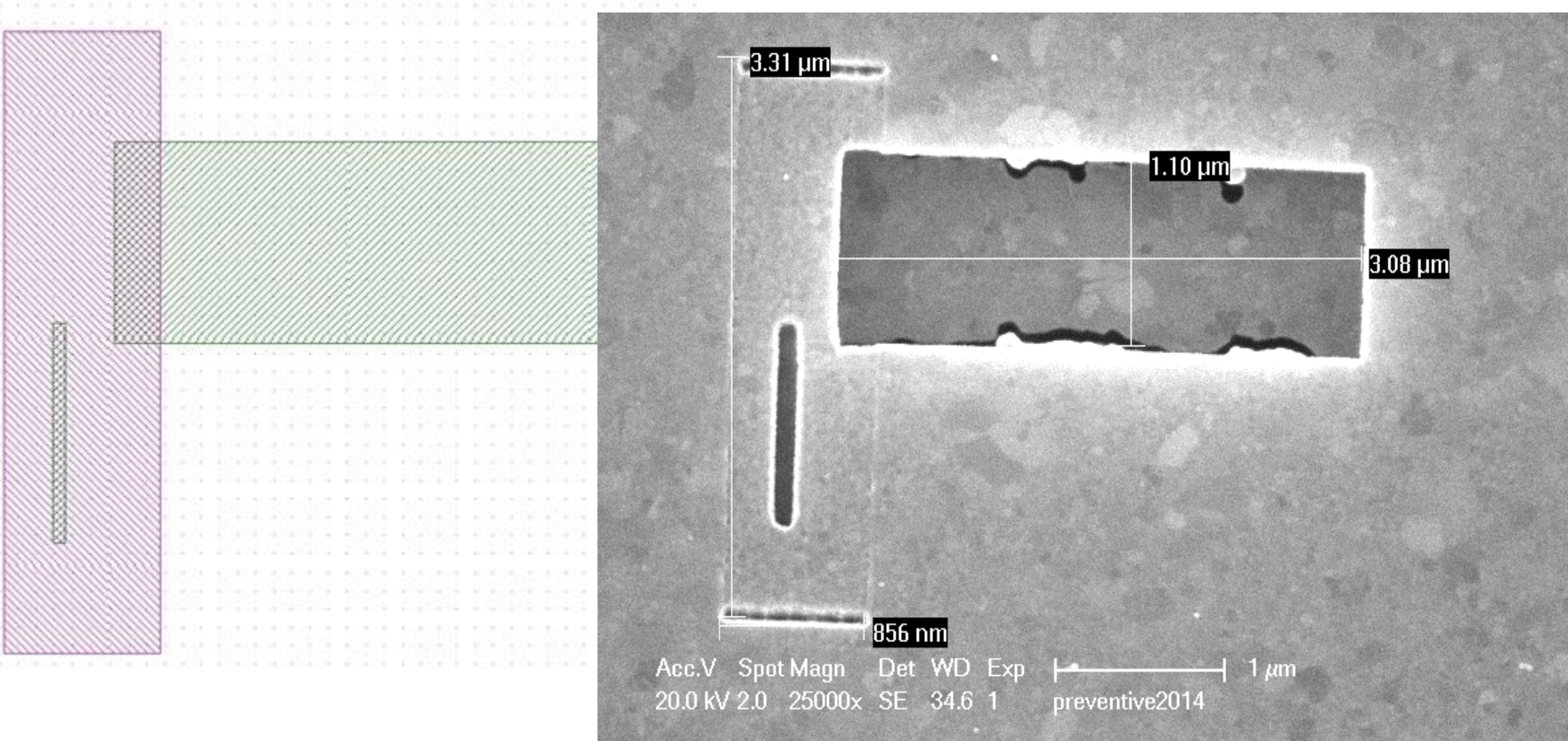


A2 on blanker position 2. Typical image.



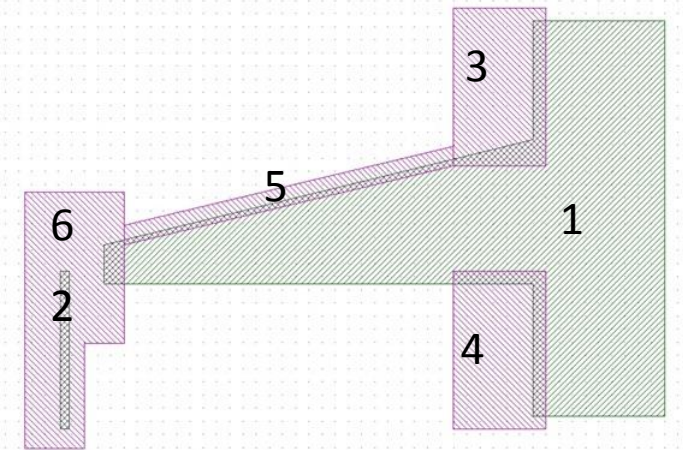
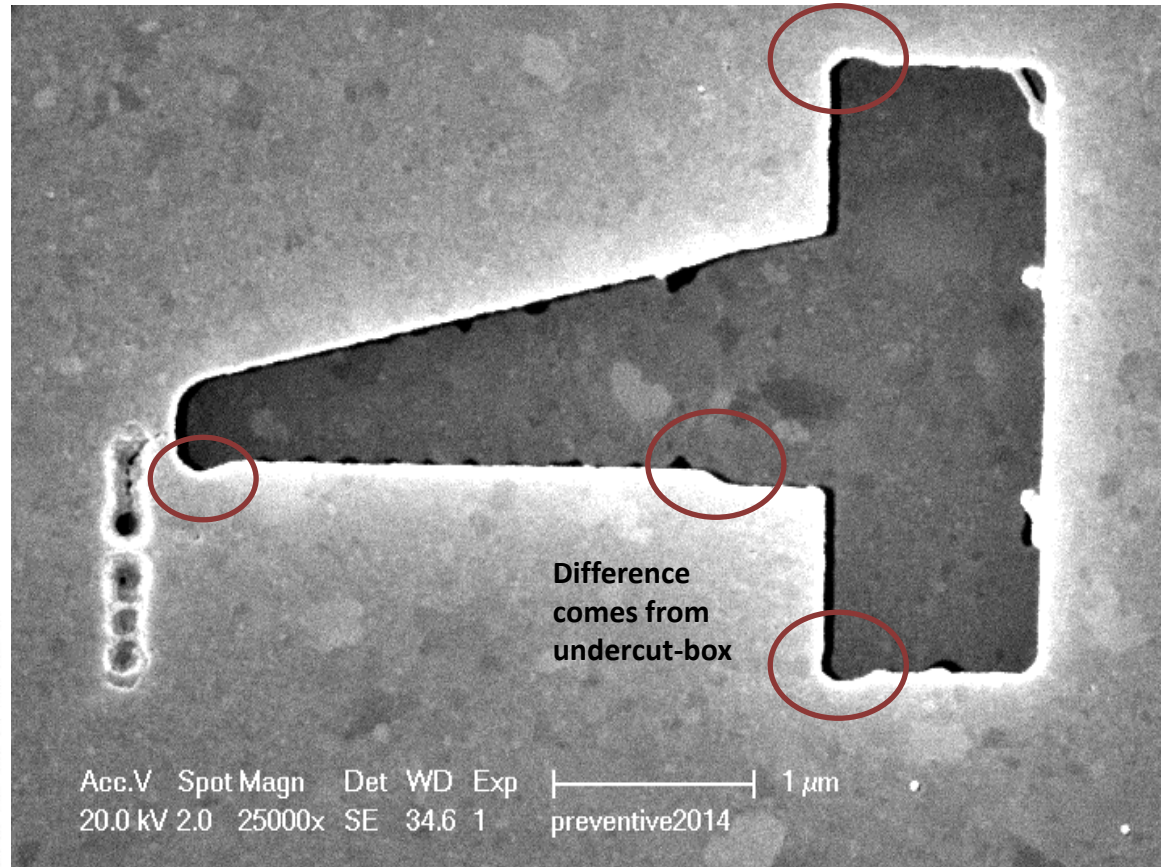
Grid distance is 100 nm.

A2 on blanker position 3. Typical image.



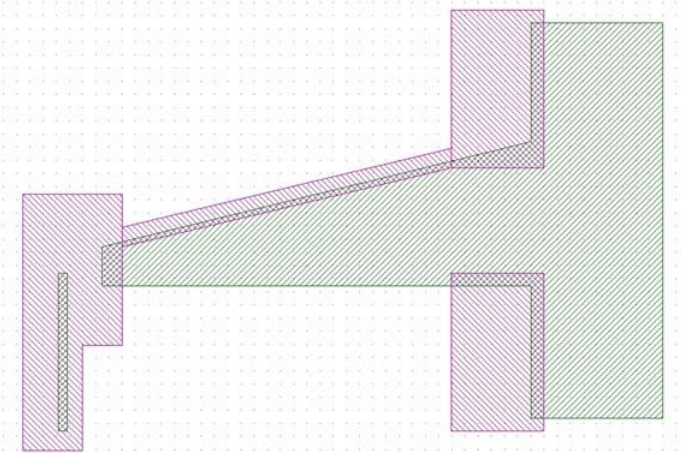
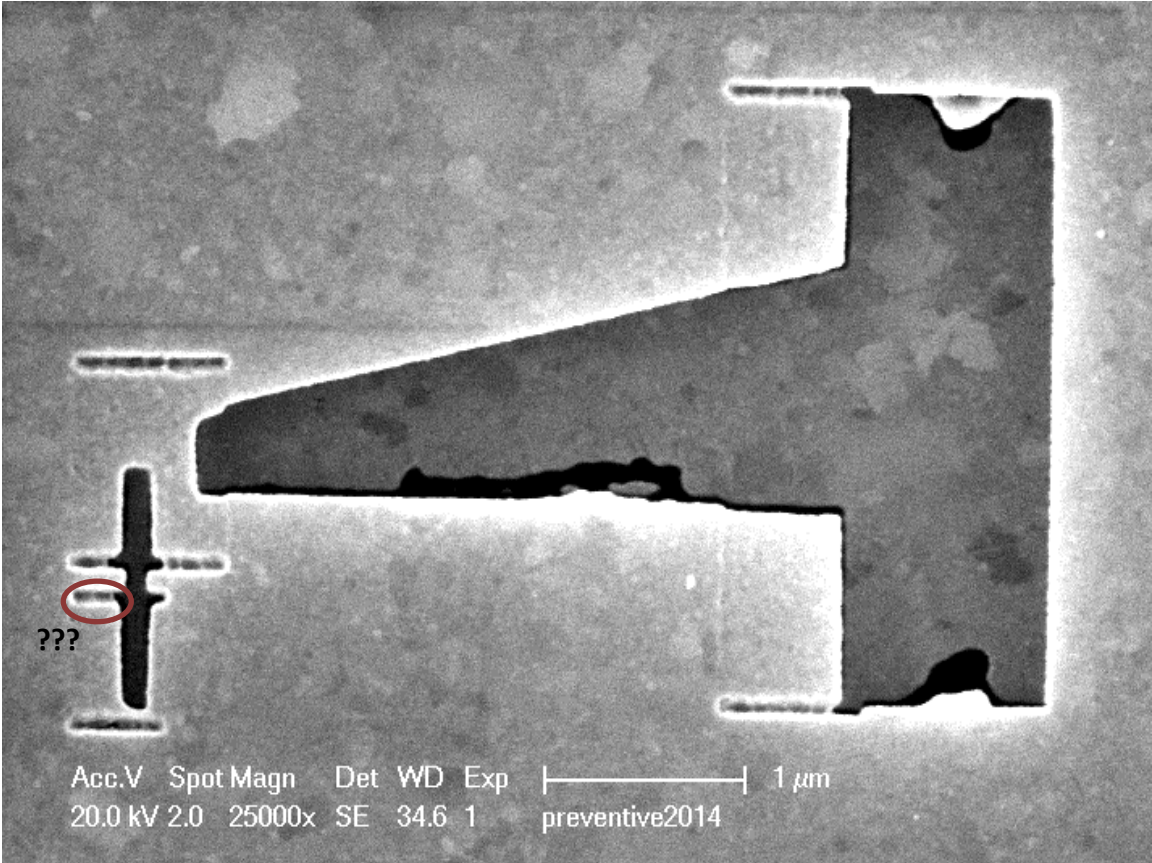
Grid distance is 100 nm.

A3 on blanker position **2**. Typical image.



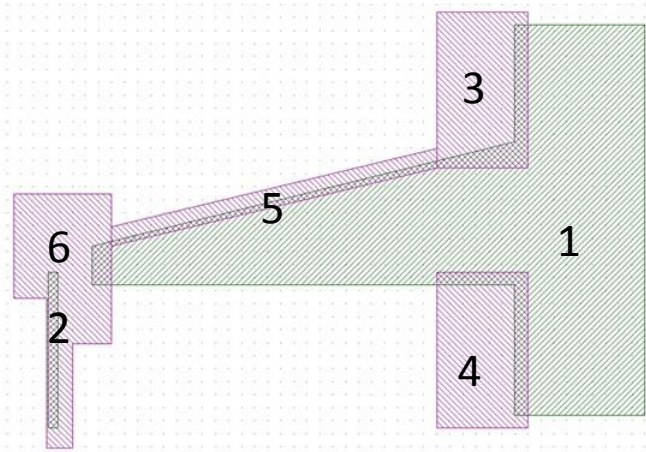
Grid distance is 100 nm.

A3 on blanker position 3. Typical image.

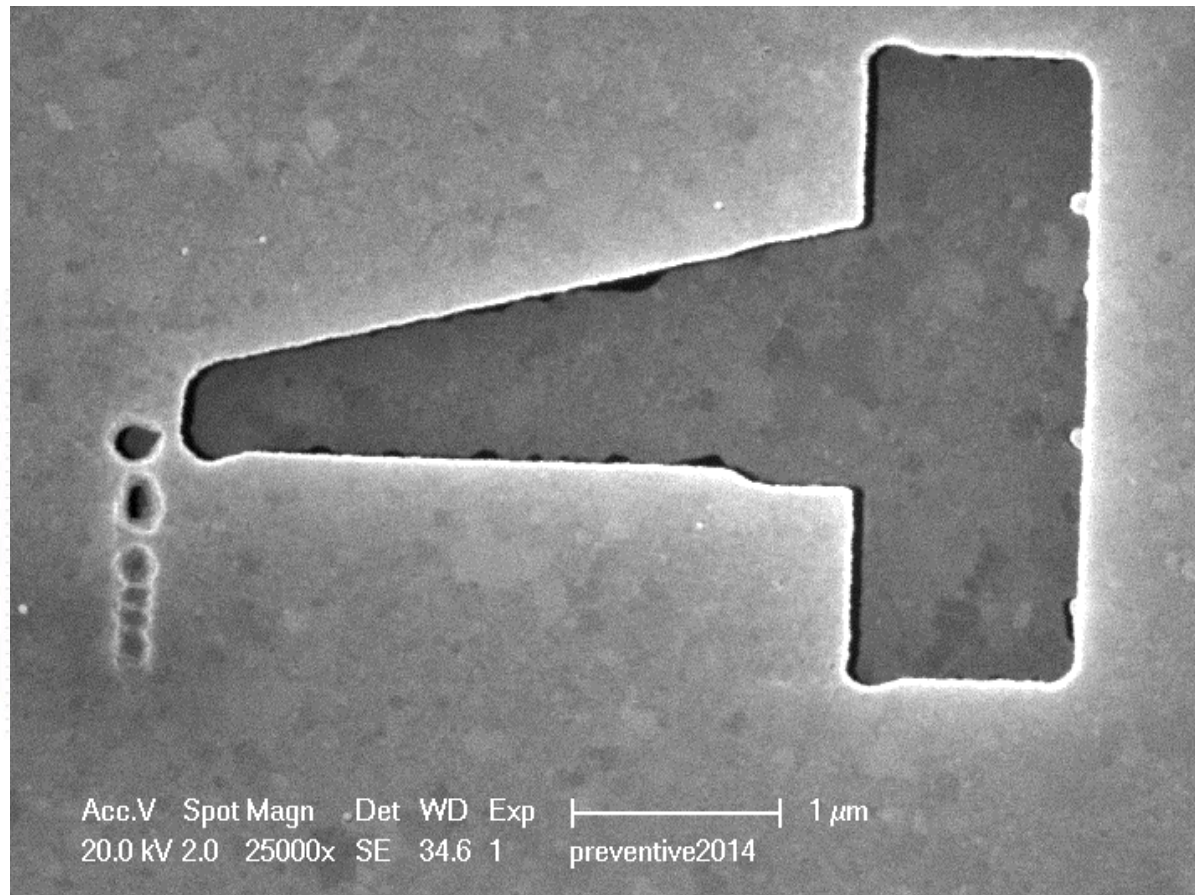


Grid distance is 100 nm.

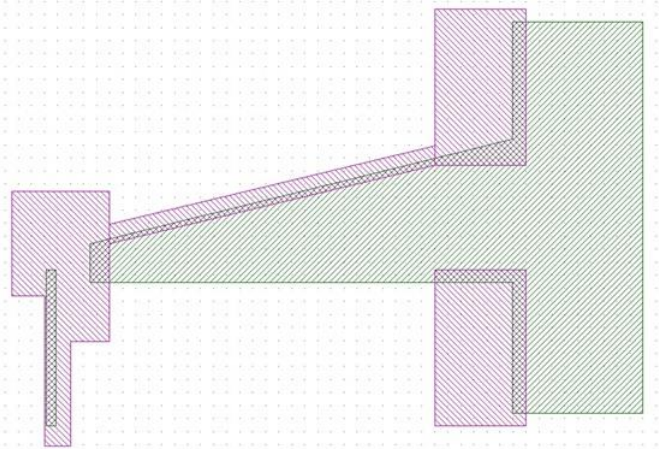
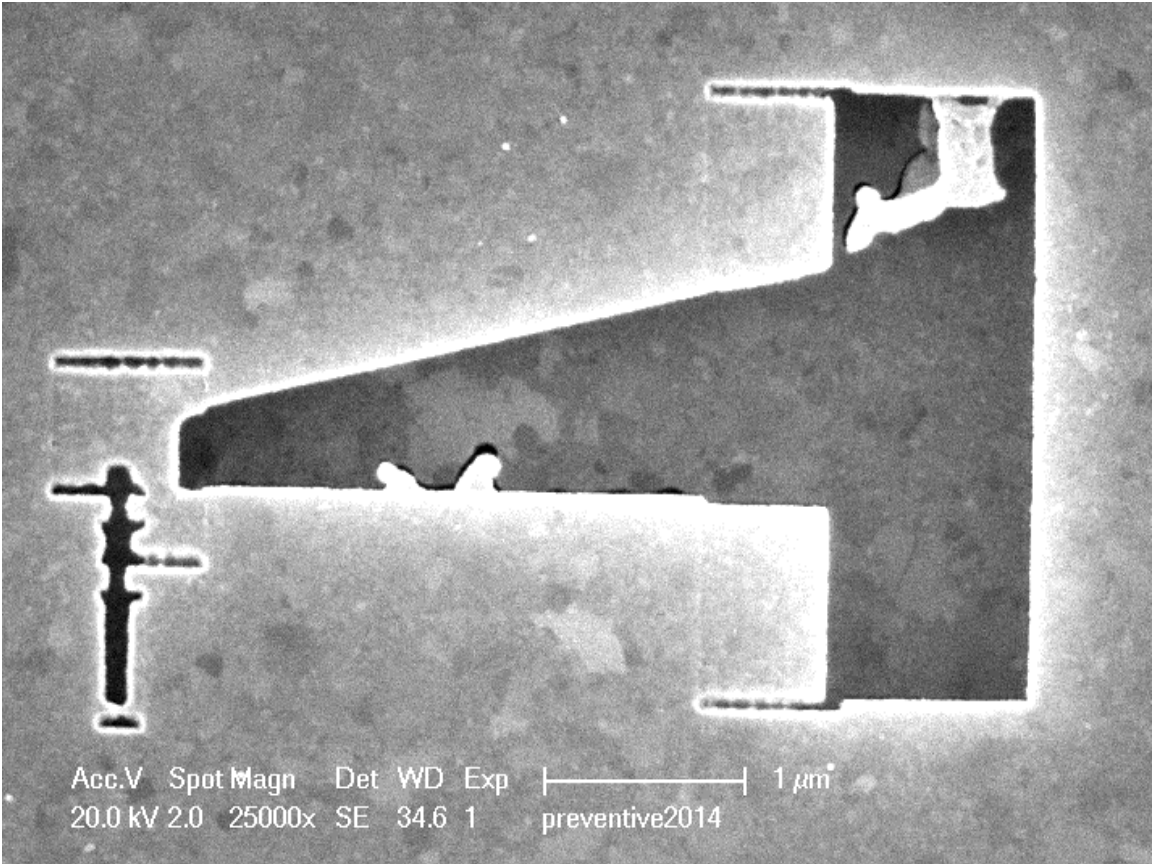
A4 on blanker position **2**. Typical image.



Grid distance is 100 nm.

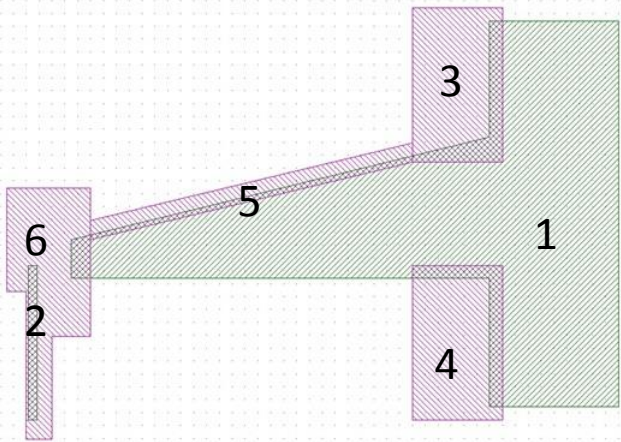


A4 on blanker position **3**. Typical image.

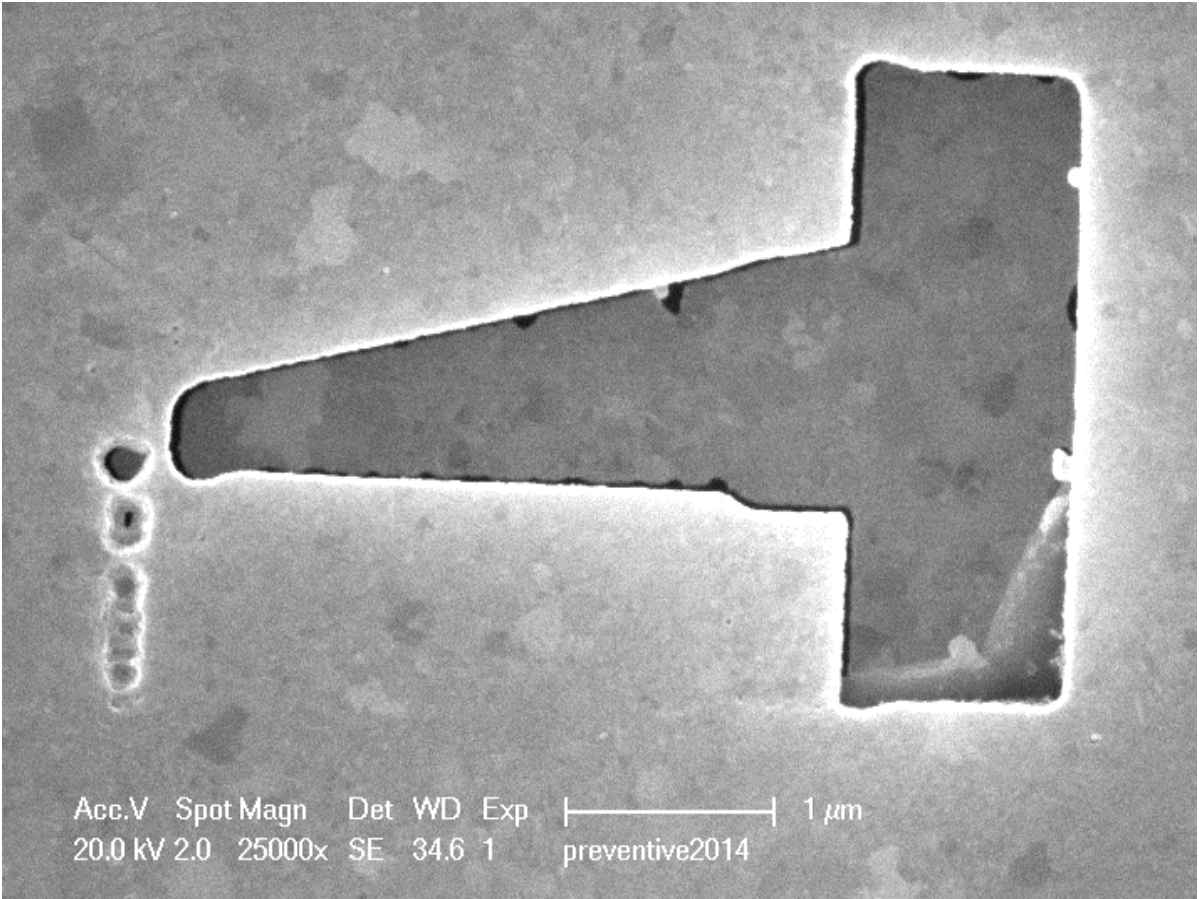


Grid distance is 100 nm.

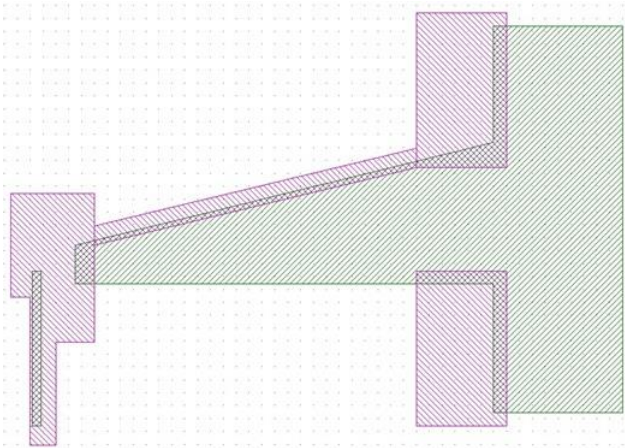
A5 on blanker position 2. Typical image.



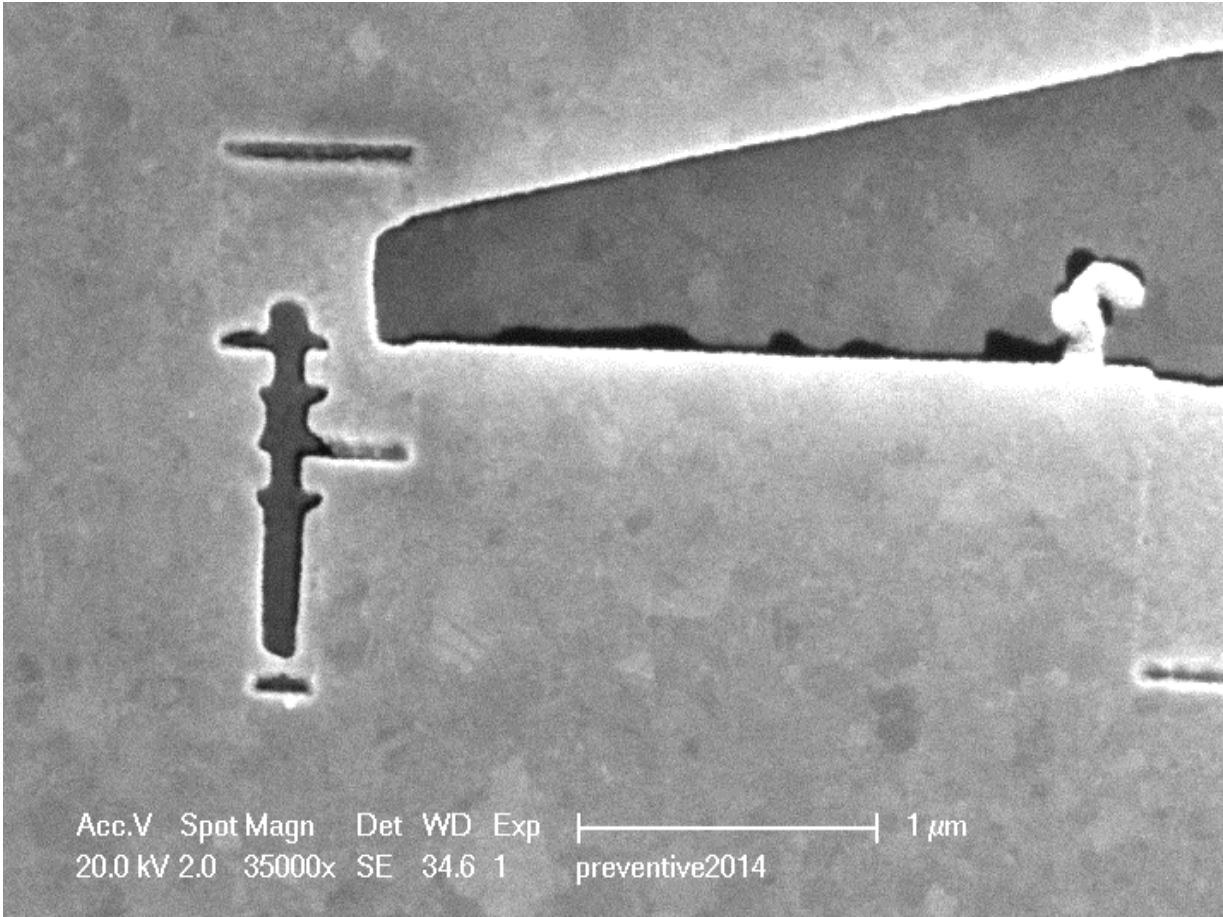
Grid distance is 100 nm.



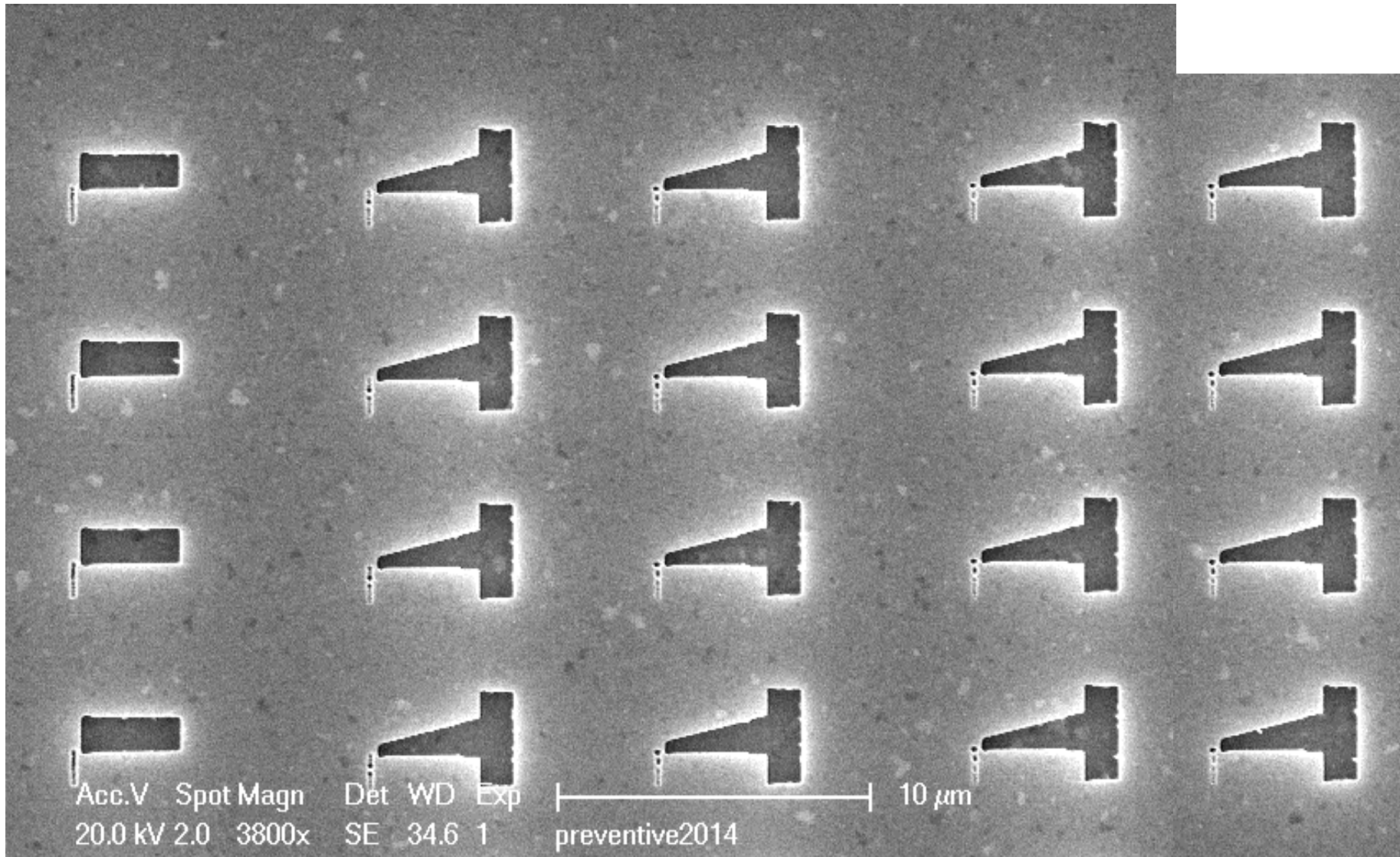
A5 on blanker position **3**. Typical image.



Grid distance is 100 nm.



Blanker position 2.

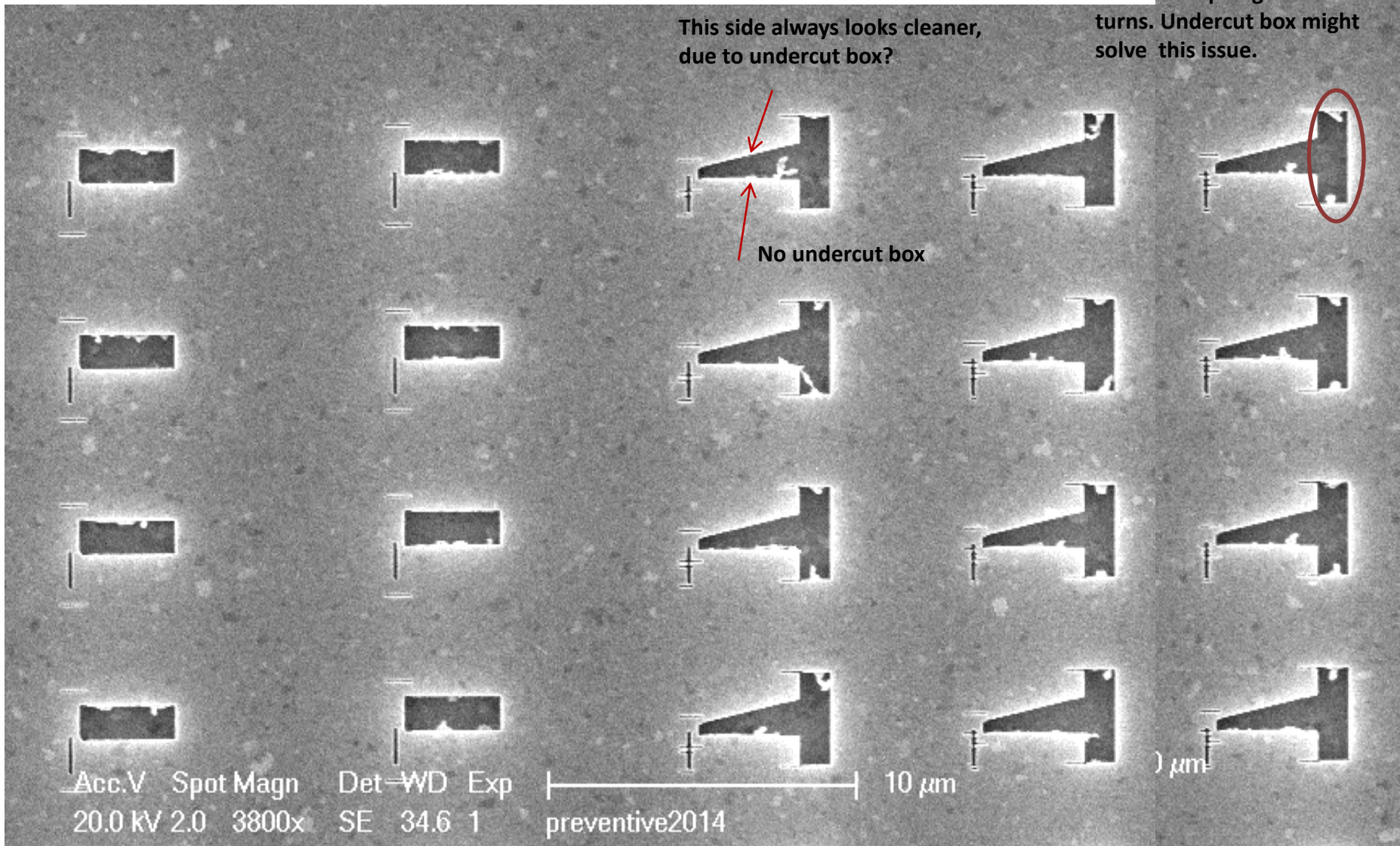


Blanker position 3.

Upper and lower edge have consistently leftovers.
Possible explanation:
Meander in vertical direction avoids sharp edges when it turns. Undercut box might solve this issue.

This side always looks cleaner, due to undercut box?

No undercut box



Acc.V Spot Magn Det WD Exp
20.0 KV 2.0 3800x SE 34.6 1

10 μm
preventive2014