



Supporting Information

for

Advanced scanning probe lithography using anatase-to-rutile transition to create localized TiO_2 nanorods

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Beilstein J. Nanotechnol. **2019**, *10*, 412–418. doi:10.3762/bjnano.10.40

Effect of the writing process on the tip

The effect of the writing process on the tip was investigated with SEM. Figure S1 shows the tip before the writing process and after writing 5 lines with a length of 10 μm for 256 times, respectively. The tip radius increased significantly. The worn probe is not spherical anymore and the diameter of the contact area is roughly 400 nm. However, it was not observed that the line width increased to 400 nm. Even after intensive writing processes, the average line width is less than 200 nm (Figure 2 of the manuscript) which indicates that only a minor part of the worn tip is in contact with the sample surface.

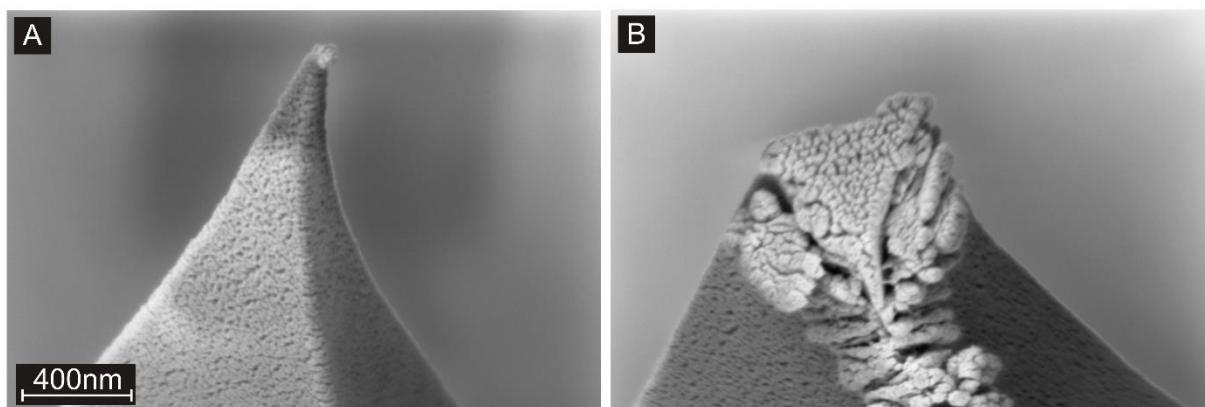


Figure S1: SEM images of a new (A) and used (B) AFM tip. The fine structure on the surface is caused by a thin gold layer which was sputtered on the tips to increase their conductivity and hence, to obtain sharper SEM images.