

## Spatioselective functionalization of gold nanopillar arrays

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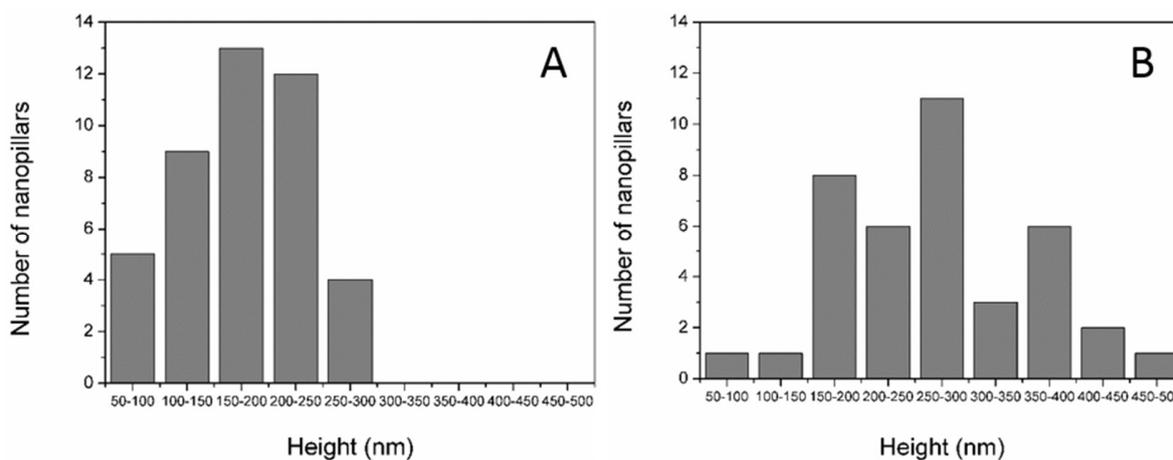
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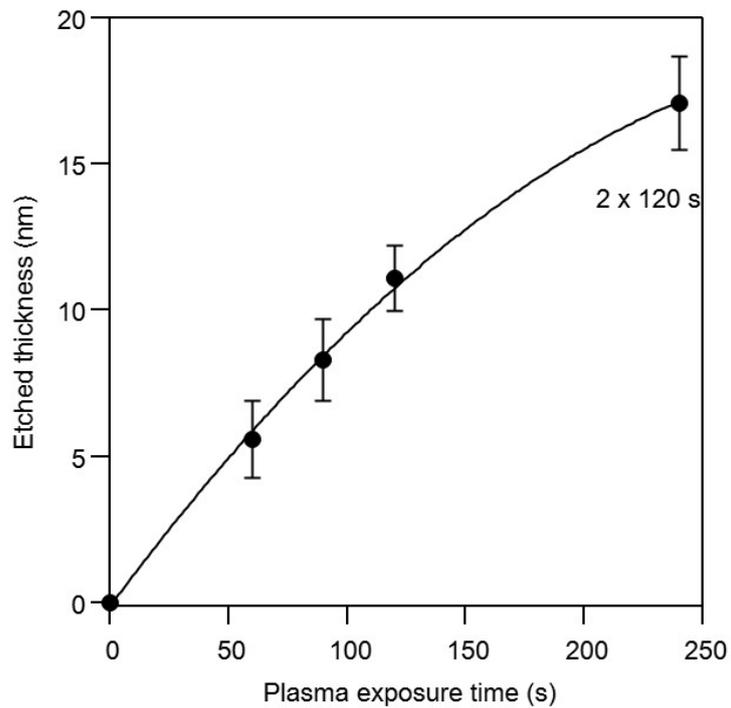
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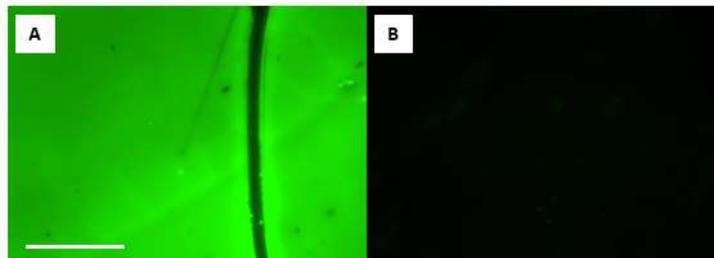
### Supplementary Information



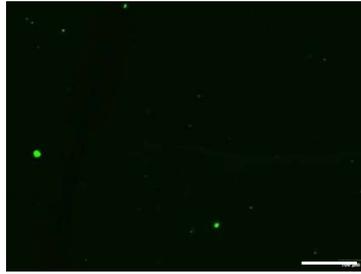
**Figure S1.** Histograms showing the height distribution of the protruding parts of nanopillars out of the PAA layer evaluated by AFM before (A) and after (B) a 2x120 sec air-plasma etching (B). The height of the gold nanopillars is  $477 \pm 105$  nm.



**Figure S2.** Variation of the PAA layer thickness etched as a function of exposure time to air plasma. The initial thickness of the PAA layer, before exposure, is 260 nm.



**Figure S3.** Epifluorescence microscopy images of flat gold surfaces covered with a MUA layer activated (B) or not (A) by EDC/sulfo-NHS then incubated with RGD-FITC peptide. The black line seen in image (B) is a deliberate scratch done to show the fluorescence intensity of the grafted layer. The scale bar represents 200  $\mu\text{m}$ .



**Figure S4.** Epifluorescence microscopy image of a gold nanopillar surface entirely covered with a thiolactone copolymer layer grafted with maleimide gold nanoparticles, incubated with EDC/sulfo-NHS then RGD-FITC. The scale bar represents 200  $\mu\text{m}$ .