Supplementary data

Patterning of supported lipid bilayers and proteins using material selective nitrodopamine-mPEG

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Content

Supplementary figures

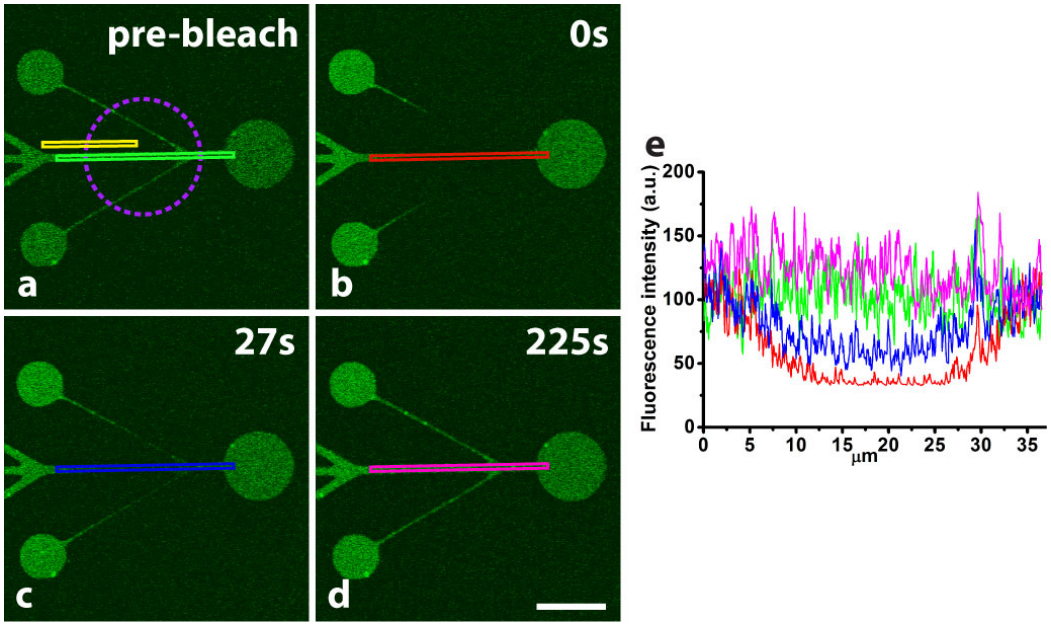

Fig. S1. Fluorescence recovery traces after photobleaching to estimate the lateral lipid mobility of the biotinylated SLB in the large channel structure (~2µm). After photobleaching (purple dotted circle in (a) corresponds to the bleached spot) the fluorescence recovered within a few minutes (e). From image analysis we estimated a 100% recovery, indicating the presence of a highly mobile lipid bilayer. This was calculated from the ratio of the averaged fluorescence intensity of the fully recovered image (indicated by the pink box in (d)) and of the pre-bleach image (indicated by the green box in (a)), after subtraction of the background. The bleached part of the yellow box in (a) was used for the calculation of the background. The corresponding averaged fluorescence intensities from the boxes in (a)-(d) are depicted in (e). Scale bar 15µm.

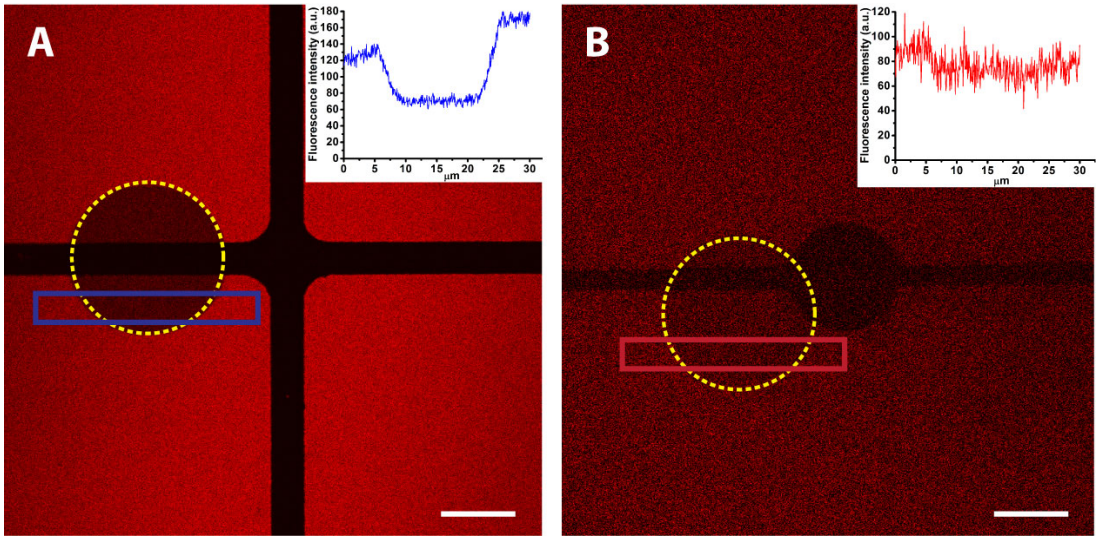

Fig. S2. Exposing BSA-Alexa546 to bare and PEGylated TiO_2/glass patterns. (A) BSA546 was exposed to bare non-passivated patterns. After photobleaching a clear spot can be seen showing that BSA546 adsorbed to the surface. (B) Following pattern passivation and photobleaching no bleached spot can be detected anymore showing that BSA546 is repelled by the PEG-brush. Yellow dotted circles in (A) and (B) correspond to the bleaching spot. The blue square in (A) and the red square in (B) were used for area averaging the fluorescence intensity shown in the corresponding insets. For bleaching 160 iterations were used. Scale bars 10µm.