Robustly Passivated, Gold Nanoaperture Arrays for Single-Molecule Fluorescence Microscopy

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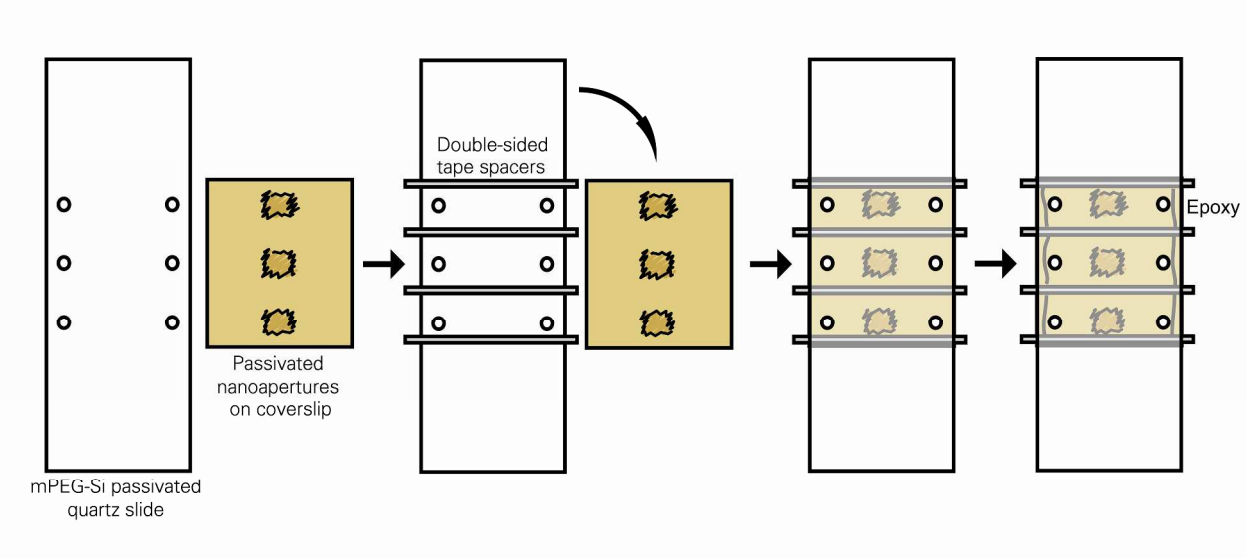

Figure S1. Schematic diagram of microfluidic device construction. Thin, adhesive spacers are carefully placed between the inlet/outlet ports of an mPEG-Si passivated, quartz microscope slide. The borosilicate coverslip substrate containing the passivated nanoaperture arrays is placed on the adhesive spacers, and aligned such that the nanoaperture arrays are positioned between the spacers, facing the interior of the soon-to-be flow cells. This alignment is facilitated by placing the slide on an illuminated surface, and then using the diffraction from the nanoaperture arrays as a guide. Once the coverslip is affixed to the slide, the flow cells are sealed with fast-drying epoxy. Superfluous spacer and epoxy can be removed from the sides of the microfluidic device with a razor blade once the epoxy is cured.