

Supplementary Information

FluidFM as lithography tool in liquid:

Spatially controlled deposition of fluorescent nanoparticles

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Fig. S11 SEM image of psNP deposited on a glass slide. The glass slide was covered with PEI and immersed for 30 min into a psNP solution with a salt concentration of 10 mM.

To experimentally determine Θ_{\max} a glass slide covered with PEI was dipped into a nanoparticle solution with the same salt concentration as the buffer solution (10 mM) for 30 min until saturation. The corresponding nanoparticle layer was subsequently analysed under SEM determining $\Theta_{\max} = 16 \pm 1\%$ by means of a statistical analysis of the SEM grey-scale

image like for the similar SEM images in the main text (Fig. 3). The SEM image is shown in Figure SI1.

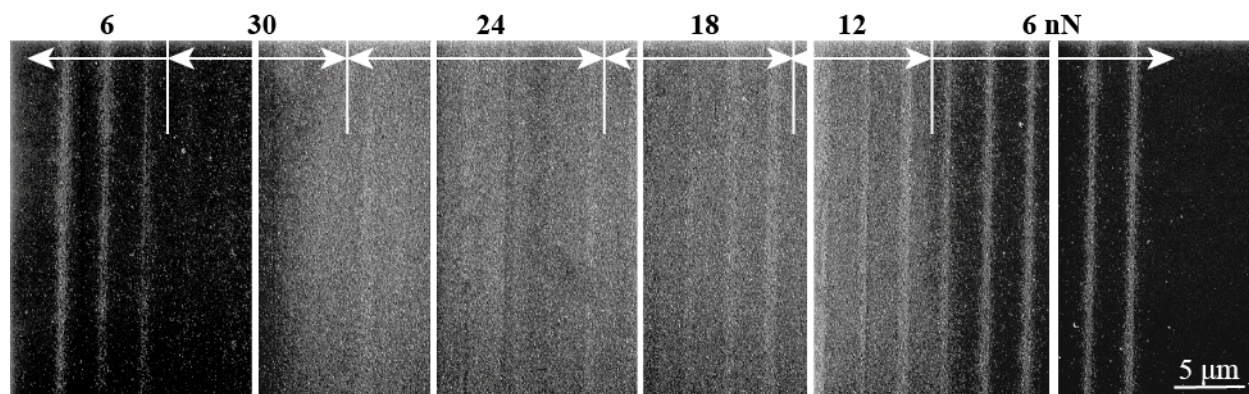


Fig. SI2 SEM images of the nanoparticle lines deposited with 5 mbar, 20 $\mu\text{m}/\text{sec}$ and different force setpoints from 6 to 30 nN. The lines were deposited from right to left increasing the setpoint. At a force setpoint of 30 nN the psNP deposition is strongly constricted. A return to the initial setpoint of 6 nN (left side) results in a similar deposition pattern as initially (right side).

The deposition pattern in Figure 5 was subsequently analyzed under SEM. The corresponding SEM images are shown in Figure SI2.