Electronic Supplementary Material (ESI) for Polymer Chemistry


# Tilted Fiber Bragg Gratings as new sensing device for in situ and real time monitoring of surface-initiated polymerization

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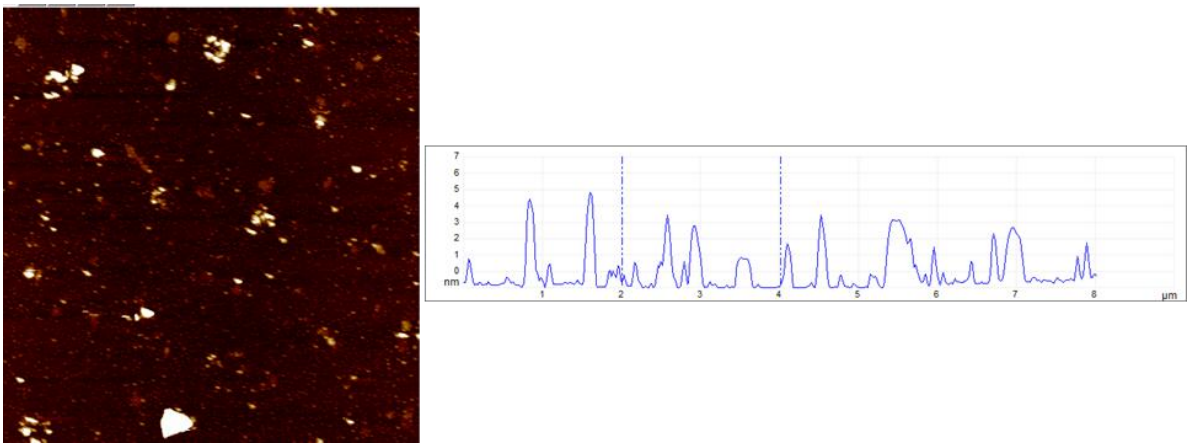
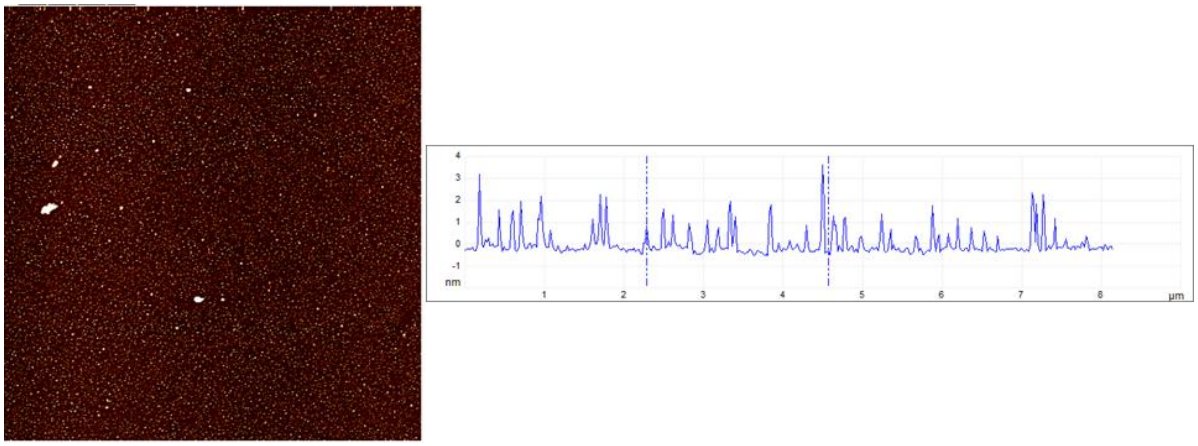


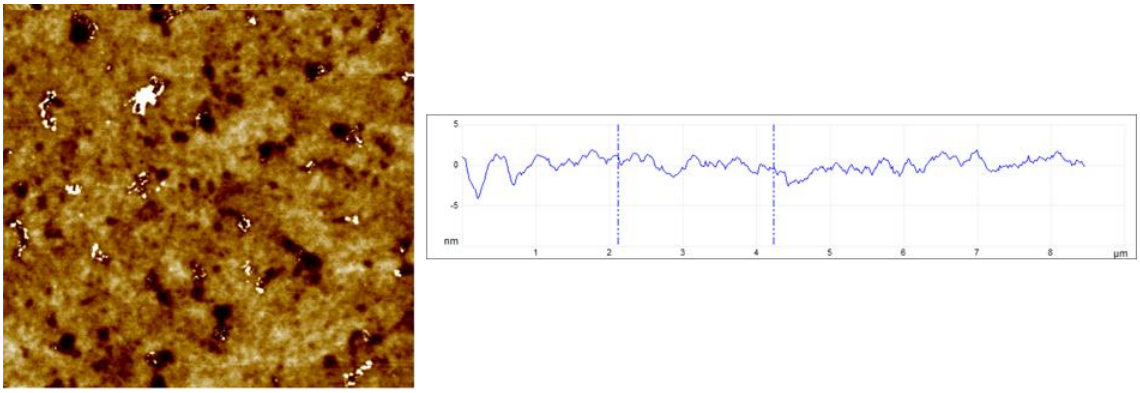

**A** **B**

**Figure S1** TM-AFM (10 x 10 µm$^2$) of SAM prepared in dry $CH_2Cl_2$ a) Height images and b) section of silicon substrate covered with a SAM built in dry $CH_2Cl_2$ for 16 hours. Vertical scale bar is 3 nm.



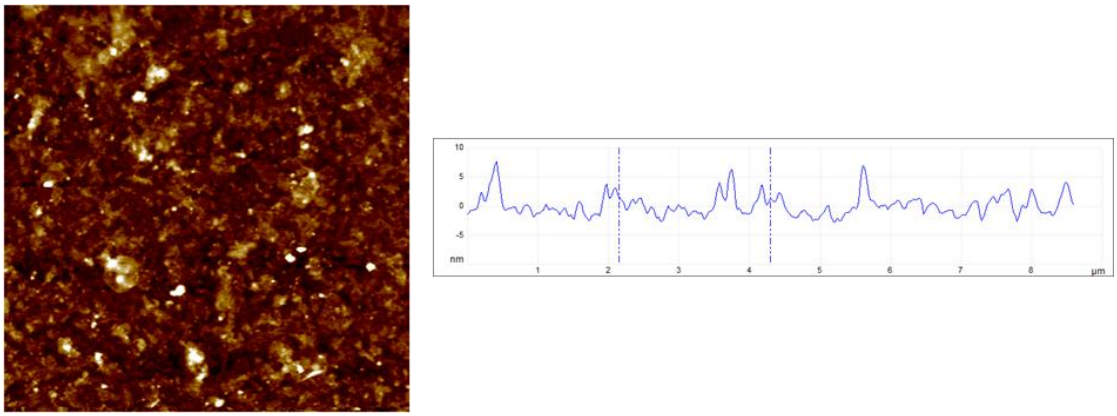

**A** **B**

**Figure S2** TM-AFM (10 x 10 µm$^2$) of SAM prepared in dry toluene a) Height images and b) section of silicon substrate covered with a SAM built in dry toluene for 16 hours. Vertical scale bar is 4nm




**A** **B**

**Figure S3** TM-AFM (10 x 10 µm$^2$) of SAM prepared by vapor phase deposition a) height and b) section of silicon substrate covered with a SAM. Vertical scale bar is 4 nm




**A** **B**

**Figure S4** a) TM-AFM height image ( 10 x 10 µm$^2$) of PDMAEMA brushes obtained by "grafting from" on silicon substrate. b) The height section is added. Vertical scale bar is 10nm.

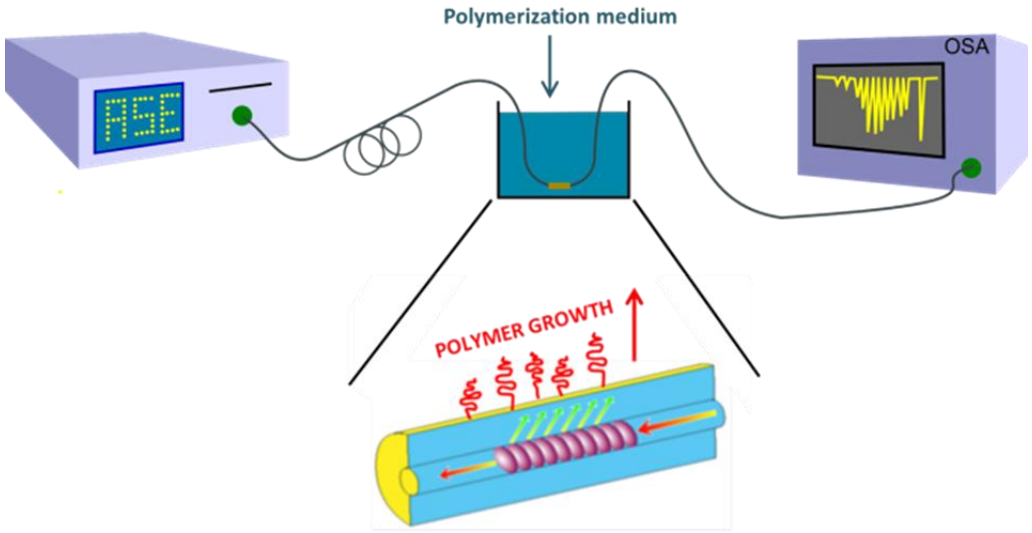



**Figure S5** Scheme of an optical fiber used for these tests