

Supporting Information

Making strong polyelectrolyte brushes pH-sensitive by incorporation of gold nanoparticles

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AFM and SEM images of PNIPAM brush/AuNP composite materials

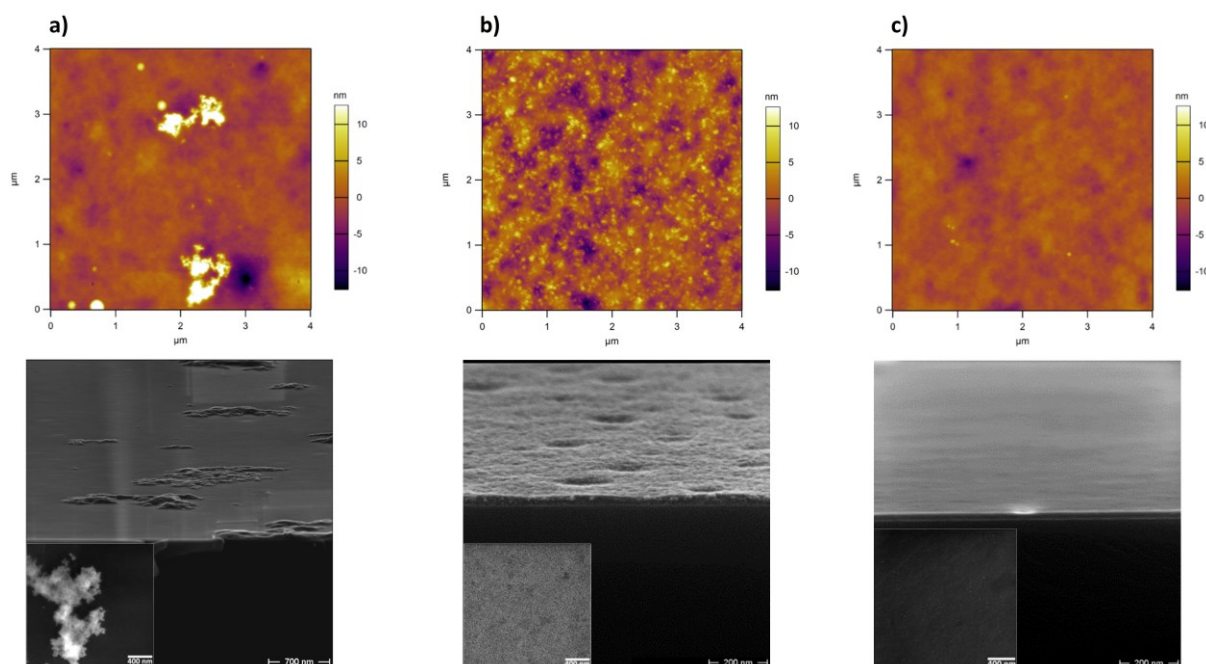


Fig. S1: AFM height images (upper images) and SEM cross sections (lower images) of composite materials after incubation of PNIPAM brush in AuNP suspension at a) pH 4, b) pH 6, and c) pH 8. The inset of each cross section shows a top-view of the composite materials. AFM height images were performed under water and at room temperature while SEM images were recorded in dry state at high vacuum.

UV/Vis spectra and AFM images of PMETAC brush/AuNP composite materials

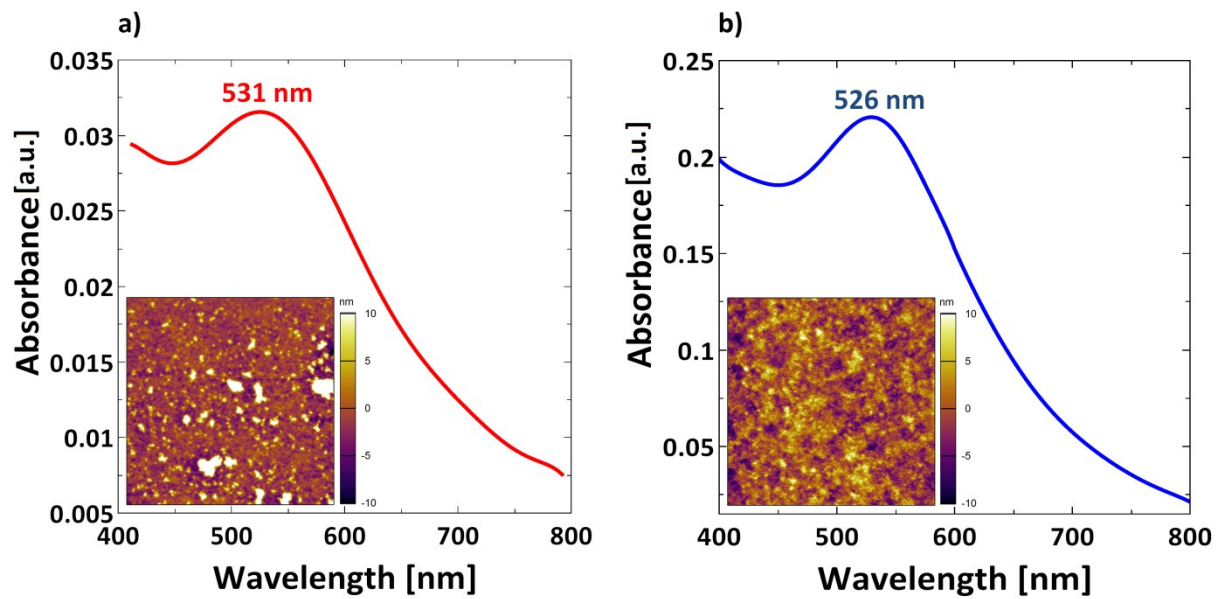


Figure S2: UV/Vis spectra of PMETAC/AuNP composites after incubation a) at pH 4 and b) at pH 8. The measurements were carried out in water at room temperature. The maximum intensity as well as the wavelength at maximum intensity is highlighted for each SPR band. The inset shows the surface topography of the composite materials by AFM, respectively.

SEM images of PMETAC brush/AuNP composite materials at pH 4

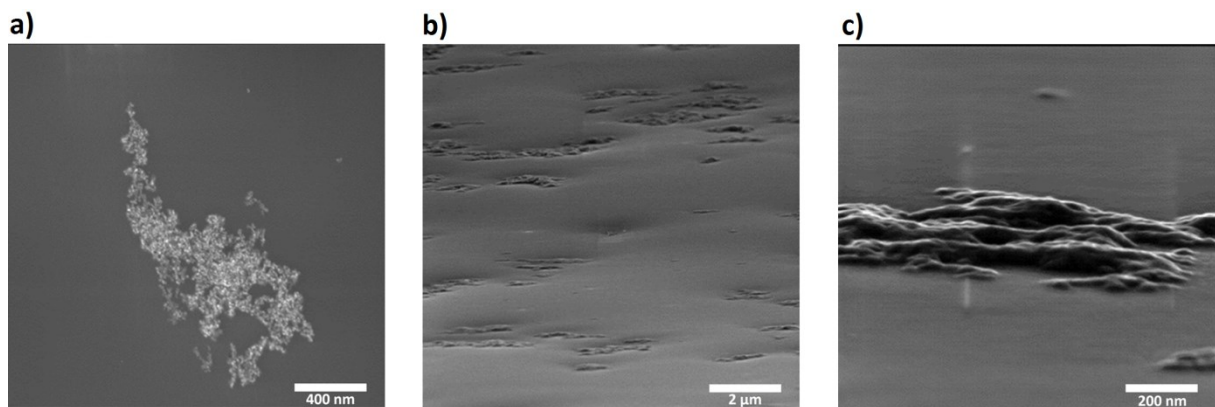


Figure S3: SEM images of PMETAC brushes after incubation in AuNP suspension at pH 4. Images as the top-view a) and the side-view b) and c).

SEM images of PMETAC brush/AuNP composite materials at pH 8

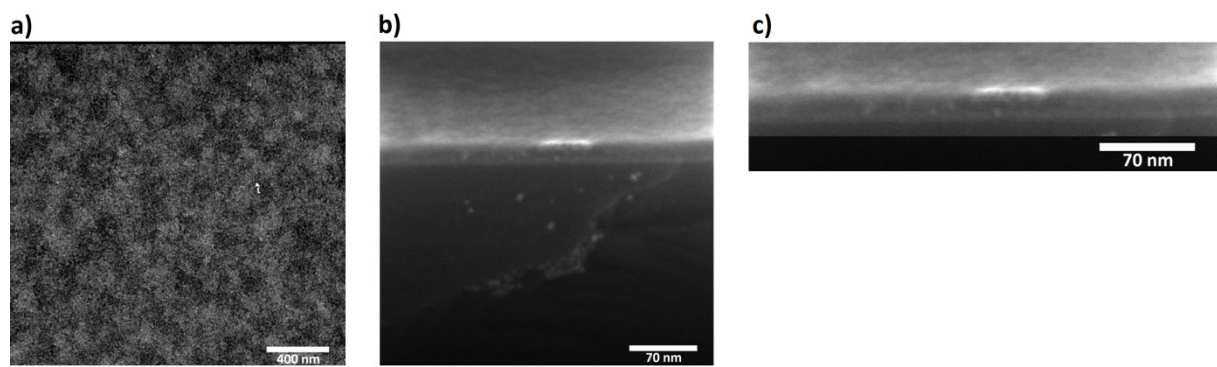


Figure S4: SEM images of PMETAC brushes after incubation in AuNP suspension at pH 8. Images as the top-view a) and the side-view b) and c).