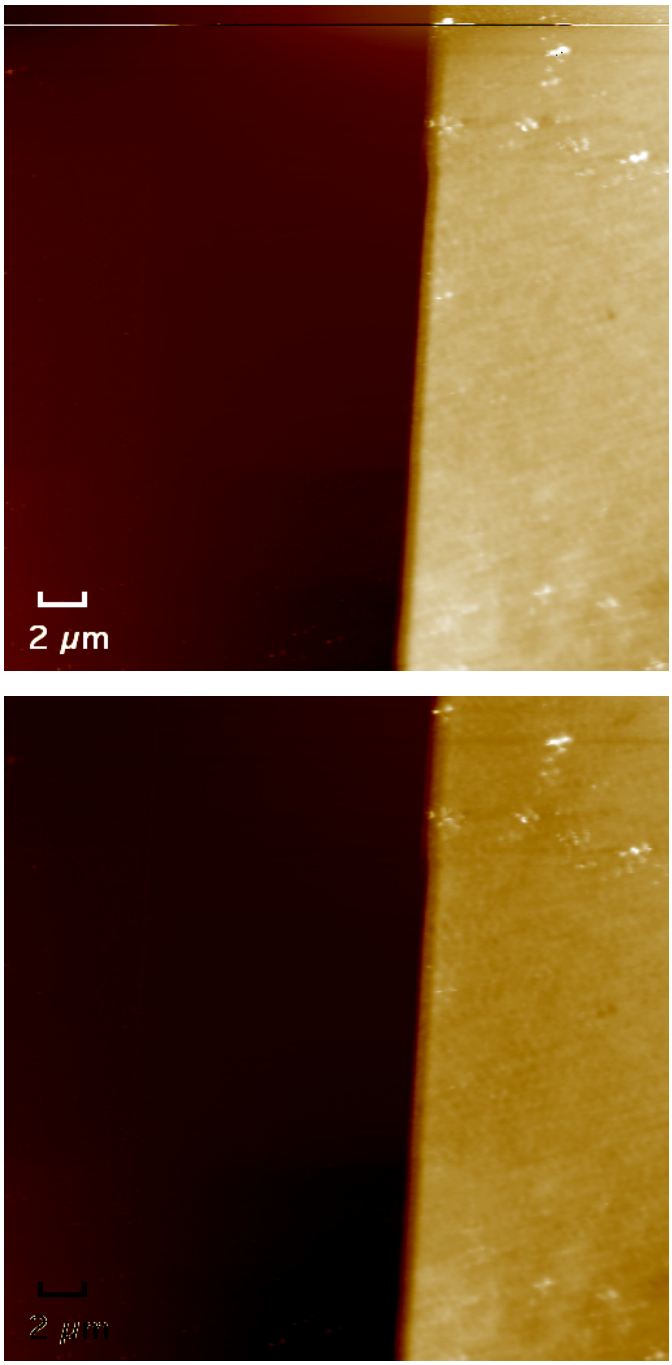
Supplementary Material (ESI) for Soft Matter

SUPPORTING INFORMATION

Further images of the pH mediated brush switching for the same area of brush imaged in figure 1.



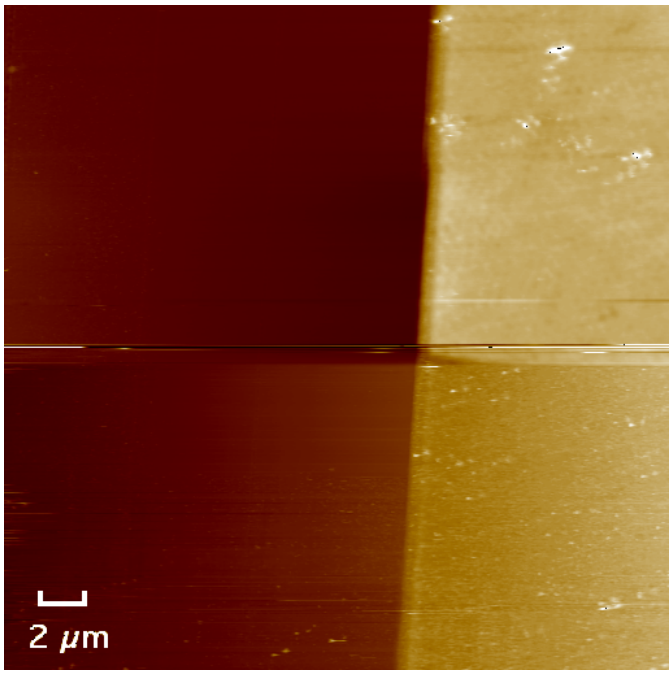


Figure S1. A series of three SFM images showing similar swelling and collapsing characteristics for the same area of brush from a collapsed state through to swollen in the article. The height scale is 200 nm.

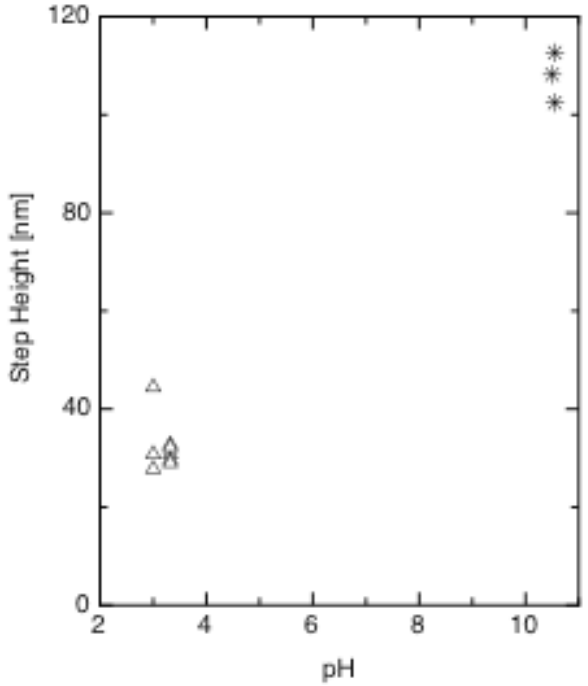


Figure S2. Step height of the poly(methacrylic acid) brush as the pH is switched repeatedly from pH 10.5 to pH 3.5 for a number of pH switches.

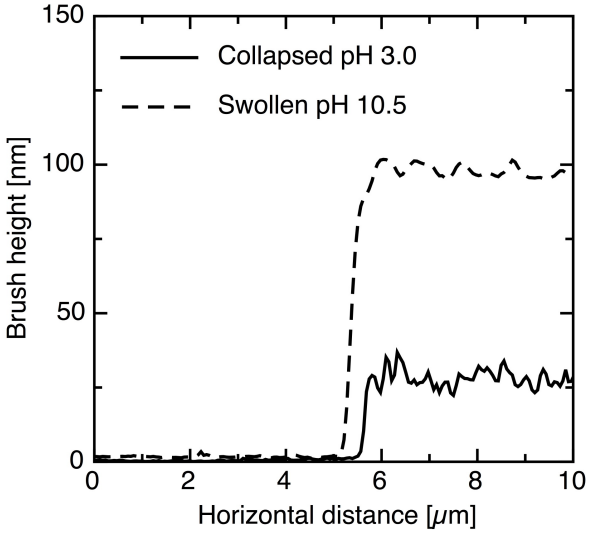


Figure S3. Sectional height analysis of the equilibrated poly(methacrylic acid) brush at pH 3 and pH 10.5.

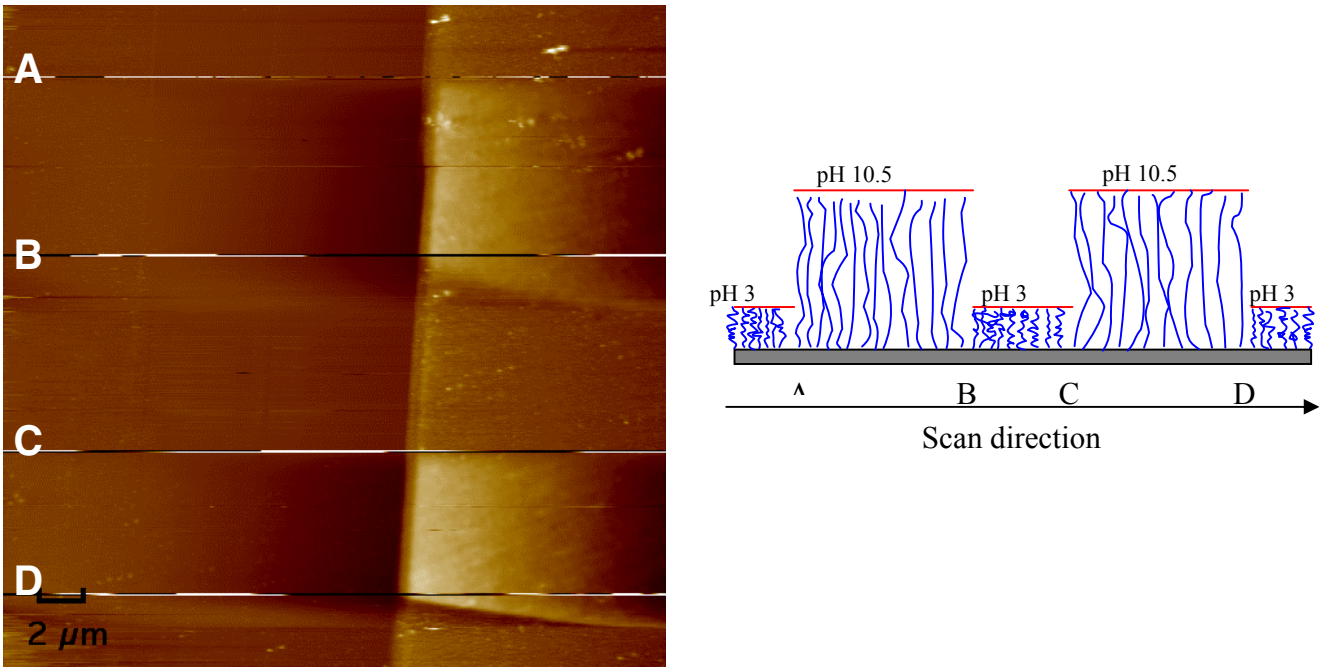


Figure S4. A 2 dimensional height image of the brush as it is switched in real time between pH10.5 (swollen) and pH 3 (collapsed). The cartoon is a crude representation of the brush height change in response to the change in the solution pH.

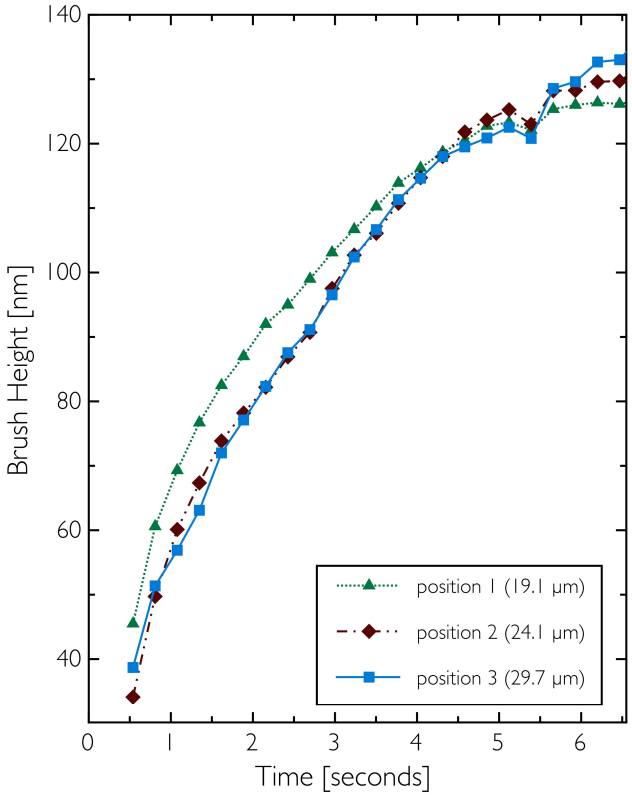


Figure S5. The swelling response for three positions at point C in figure 1 after the addition of pH 10.5 at (t=0).