## **Supporting Info**

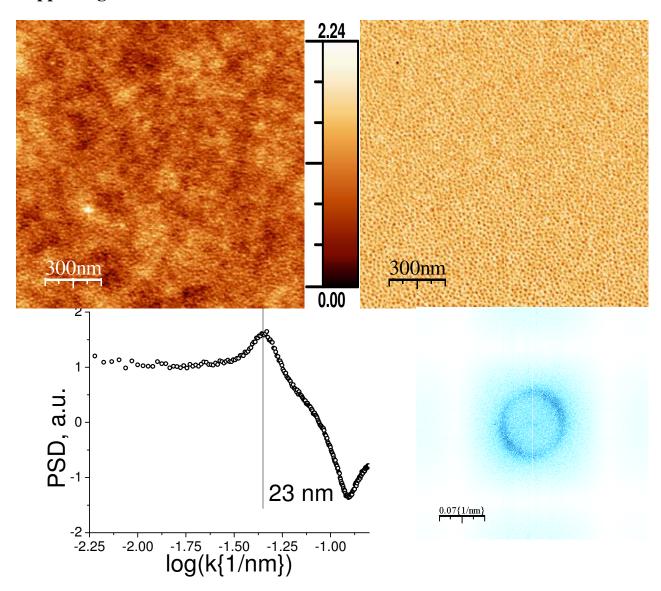


Figure S1. AFM images of 70 nm thick film of parent BCP of PS-P4VP: topography (left) and phase (right):  $1.5 \times 1.5 \mu m^2$  scan size. Bottom: Power spectrum density and FFT image of the phase signal. Periodicity 22.8 nm.

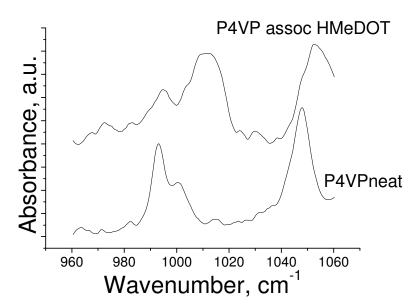


Figure S2. FTIR spectra of neat P4VP and P4VP in associate with HMeDOT. The shift of P4VP peak at 993cm<sup>-1</sup> to 1009 cm<sup>-1</sup> upon formation of hydrogen bond with HMeDOT observed. The FTIR spectrum "P4VP assoc HMeDOT" is the result of subtraction of neat HMeDOT spectrum from HMeDOT-P4VP associate.

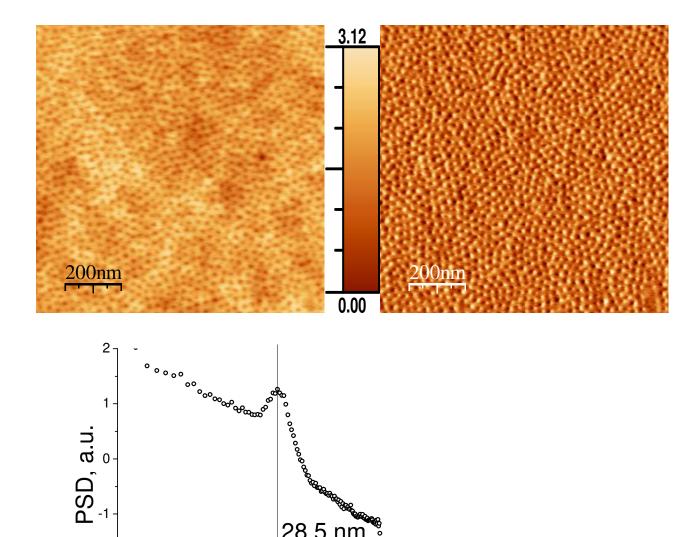


Figure S3. AFM image of 70 nm thick film of HMeDOT BSA as deposited without extraction: topography (left) and phase (right):  $1.0 \times 1.0 \mu m^2$  scan size. Bottom: Power spectrum density plot. Periodicity 28.5 nm.

-1.00

28.5 nm

-1.75 -1.50 -1.25 log(k{1/nm})

-2.25

-2.00