

Supporting Information for

**Surface Modification by Assembling: A Modular Approach Based
on Match in Nanostructures**

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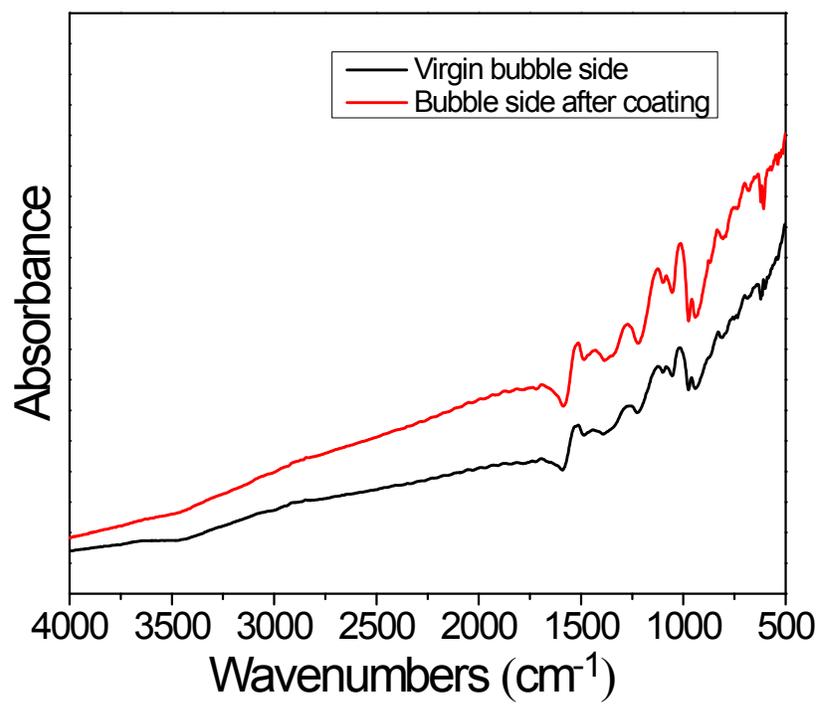


Figure S1. FTIR spectra of the bubble side of the membrane before and after (loaded with 1.07 mg cm⁻² particles) particle immobilization followed by washing.

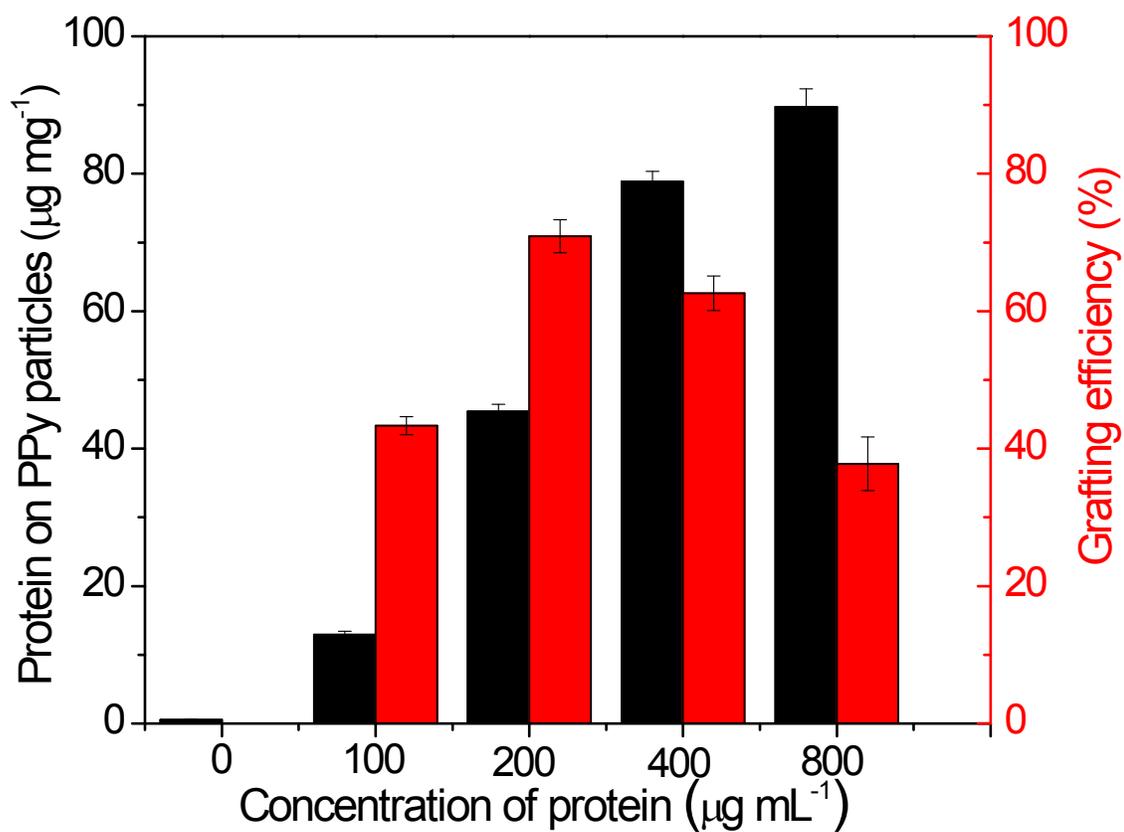


Figure S2. Effect of HSA feeding concentration on the quantity of the proteins grafted on particle surface and the grafting efficiency.

Movie 1:

Flexibility of pristine PPy membrane.

Movie 2:

Squeezing of the biofunctionalized PPy membrane.

Movie 3:

Flexibility of the biofunctionalized PPy membrane.

Movie 4:

Compression of a tube made of the biofunctionalized PPy membrane.