Supporting Information

Polyaniline-polystyrene membrane for simple and efficient retrieval of double-stranded DNA from aqueous media

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Polymerization process

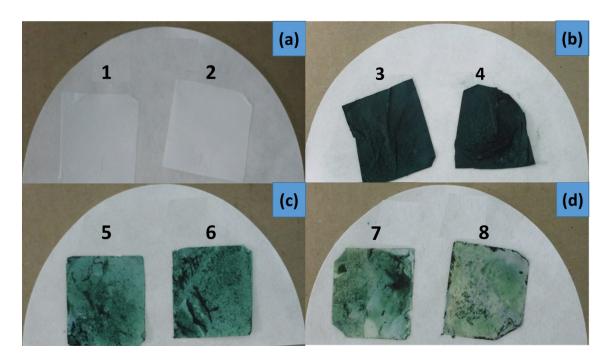


Figure SI.1. Visual aspect of the PANI/PS membranes prepared by exposing the PS films to aniline solutions of different monomer concentrations: (a) 0.05, (b) 0.52, (c) 5 and (d) 20 mmol.

Adsorption isotherms

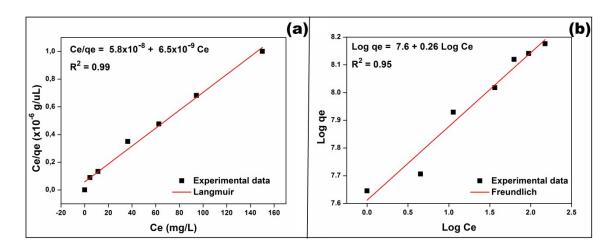


Figure SI.2. Linear fitting of the experimental isotherms for DNA adsorption on PANI/PS membranes using (a) Langmuir and (b) Freundlich isotherm models.

Adsorption kinetics

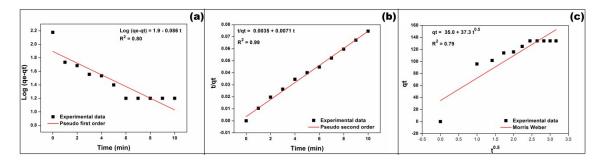


Figure SI.3. Linear fitting of the experimental data for kinetics of DNA adsorption on PANI/PS membranes using (a) Pseudo First order, (b) Pseudo Second order and (c) Morris-Weber models.

Adsorption-Desorption experiments

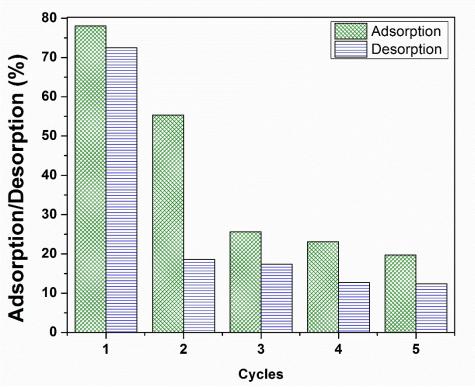


Figure SI.4. Degree of DNA adsorption/desorption of a PANI/PS membrane submitted to five consecutive recycling steps.

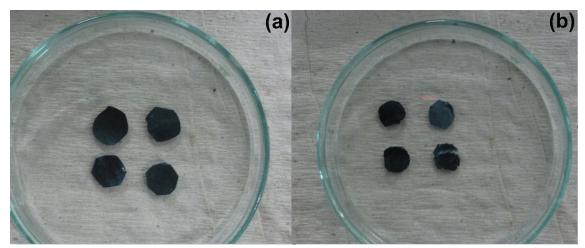


Figure SI.5. Visual aspect of PANI/PS membranes: (a) in pristine form and (b) after being submitted to five adsorption/desorption cycles.