materials

MDPI

*Supplementary*

# Surface Antifouling Modification on Polyethylene Filtration Membranes by Plasma Polymerization

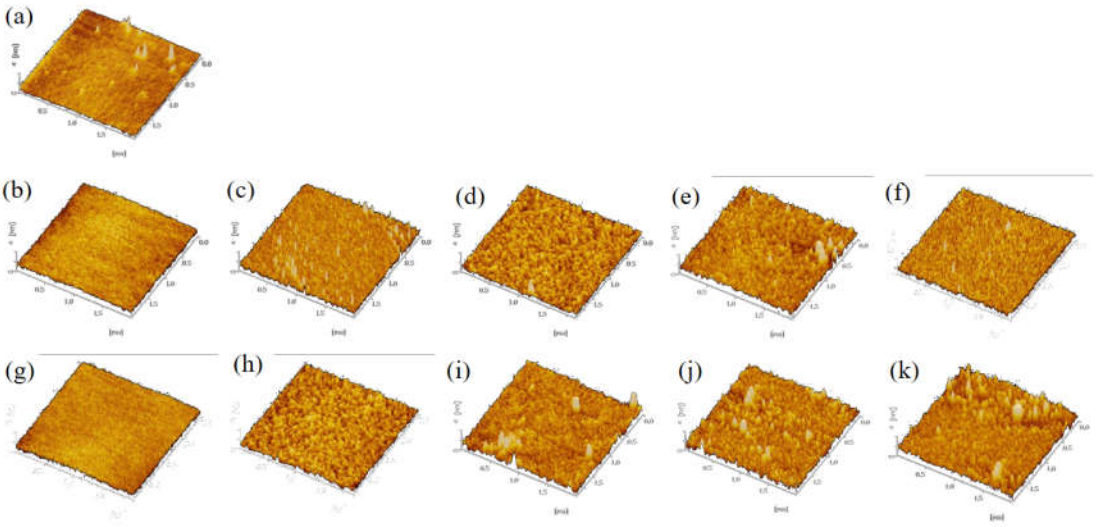


**Figure S1.** The AFM images on pristine PE (**a**), on pp-EO1V/Si at different applied plasma power: (**b**) 10 W, (**c**) 20W, (**d**) 30 W, (**e**) 40 W, (**f**) 50 W; and on pp-EO2V/Si at different applied plasma power: (**g**) 10 W, (**h**) 20W, (**i**) 30 W, (**j**) 40 W, (**k**) 50 W. (Plasma deposition pressure: 100 mtorr, flow rate of precursors: 15 sccm, deposition time: 0.5 h).

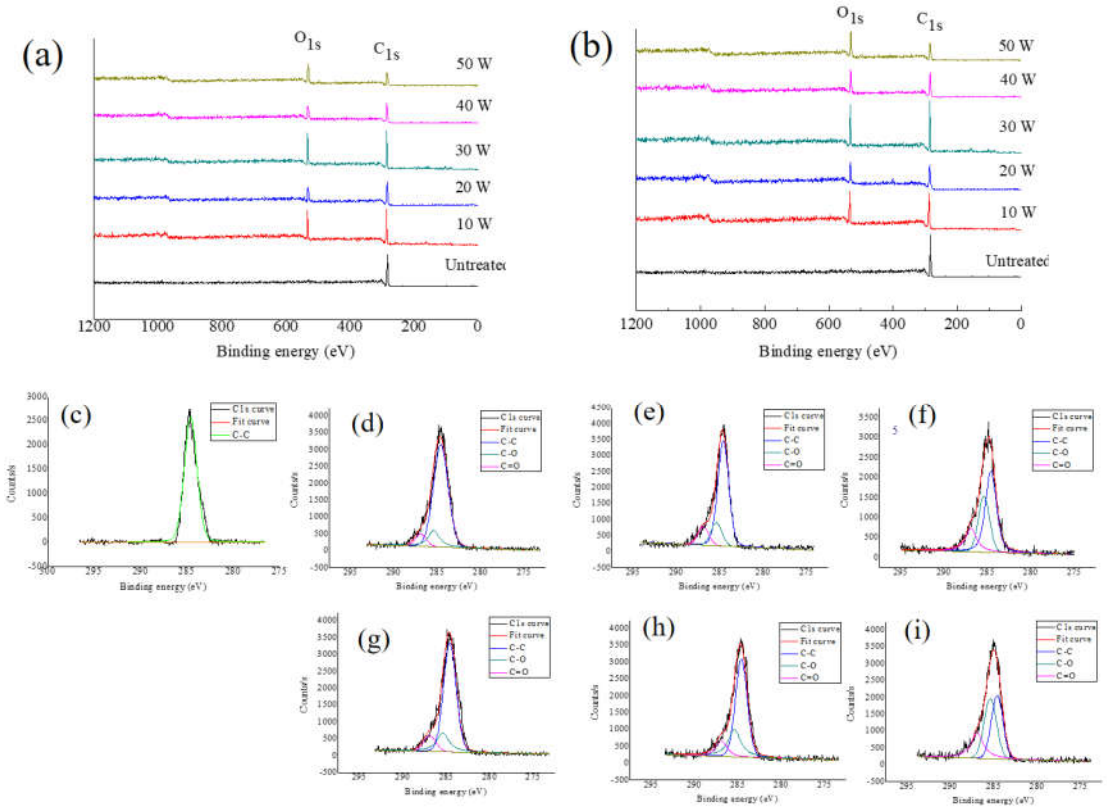


**Figure S2.** Wide scan ESCA spectra for the surface chemical composition as a function of the applied plasma power on (**a**) pp-EO1V/PE, and (**b**) pp-EO2V/PE. The high resolution C1s spectra on (**c**) pristine PE, (**d**) 10- pp-EO1V/PE, (**e**) 30-pp-EO1V/PE, (**f**) 50-pp-EO1V/PE, (**g**) 10-pp-EO2V/PE, (**h**) 30-pp-EO2V/PE, and (**i**) 50-pp-EO2V/PE. (Plasma deposition pressure: 100 mtorr, flow rate of precursors: 15 sccm, deposition time: 0.5 h).

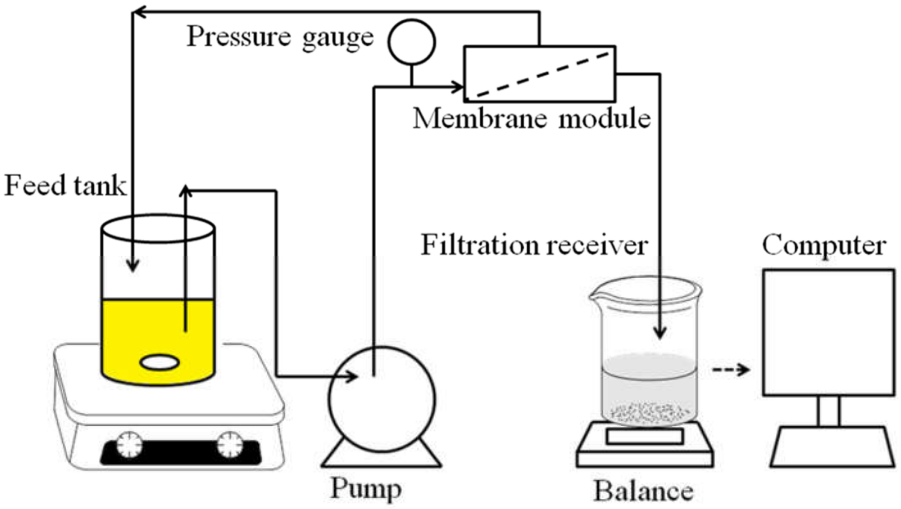


**Figure S3.** The set-up for measurement for filtration performance. The feed tank is used to reserve cell solutions; the tested PE membranes were incorporated into the membrane module. The filtrate performance was evaluated by weighting the cumulative weight of the filtrate cakes.

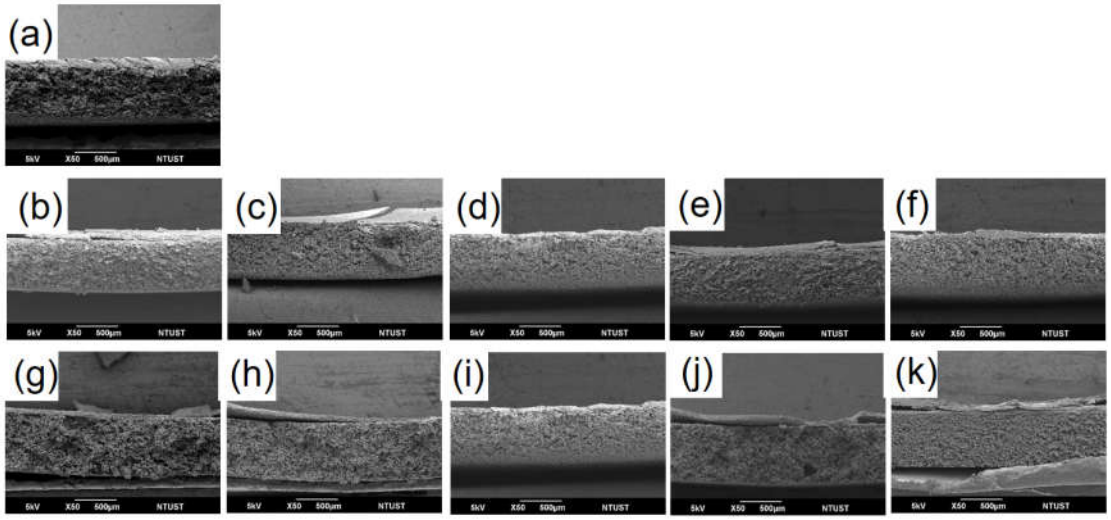


**Figure S4.** The thickness of filtrate cake after filtration of CHO cells on (**a**) pristine PE, (**b**) 10-pp-EO1V/PE, (**c**) 20-pp-EO1V/PE, (**d**) 30-pp-EO1V/PE, (**e**) 40-pp-EO1V/PE, (**f**) 50-pp-EO1V/PE, and (**g**) 10-pp-EO2V/PE, (**h**) 20-pp-EO2V/PE, (**i**) 30-pp-EO2V/PE, (**j**) 40-pp-EO2V/PE, (**k**) 50-pp-EO2V/PE.