

Polysaccharide multilayer films in sensors for detecting prostate tumor cells based on hyaluronan-CD44 interactions

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Supporting information

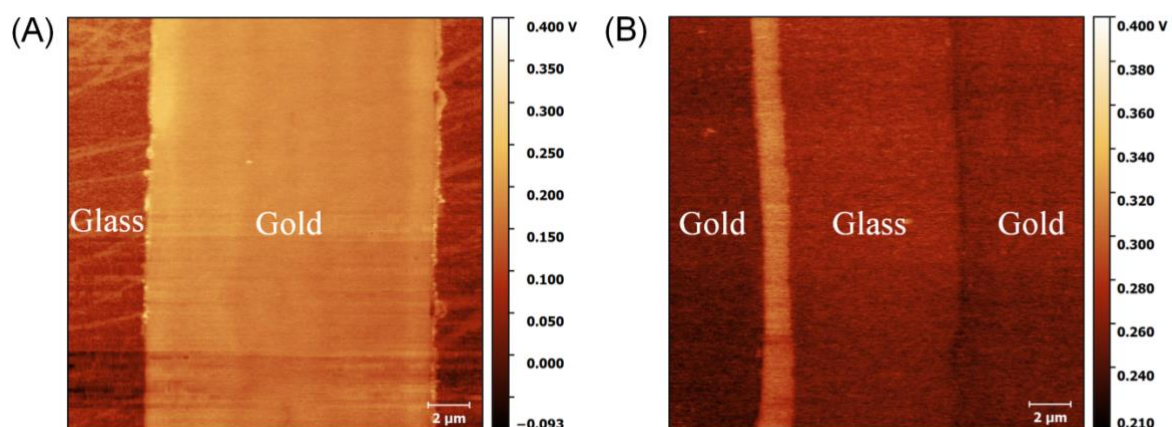


Figure S1. KPFM images for interdigitated electrodes (A) before and (B) after deposition of 3.5 bilayers of CHI/HA bilayers. The surface potentials for gold and gold coated with the LbL film are (62 ± 32) mV and (10 ± 2) mV, respectively. The roughness values were (31 ± 11) nm and (9 ± 4) nm for glass and glass coated with the LbL film, respectively.

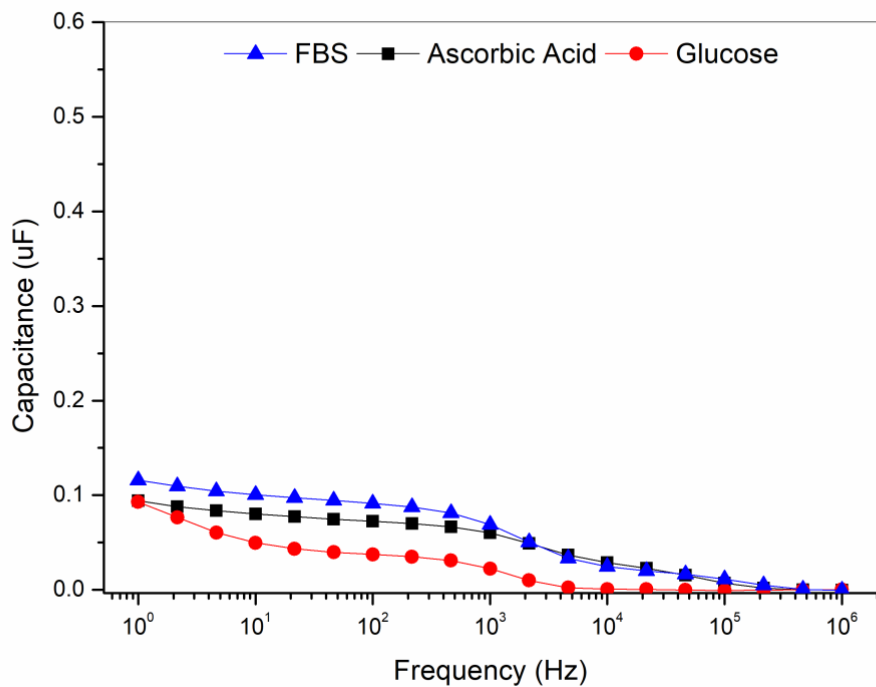


Figure S2. Capacitance spectra for electrodes functionalized with 3.5 CHI/HA bilayers exposed to non-specific analytes (glucose (100 mg/dL), ascorbic acid (4.8 mg/mL) and fetal bovine serum (FBS)).

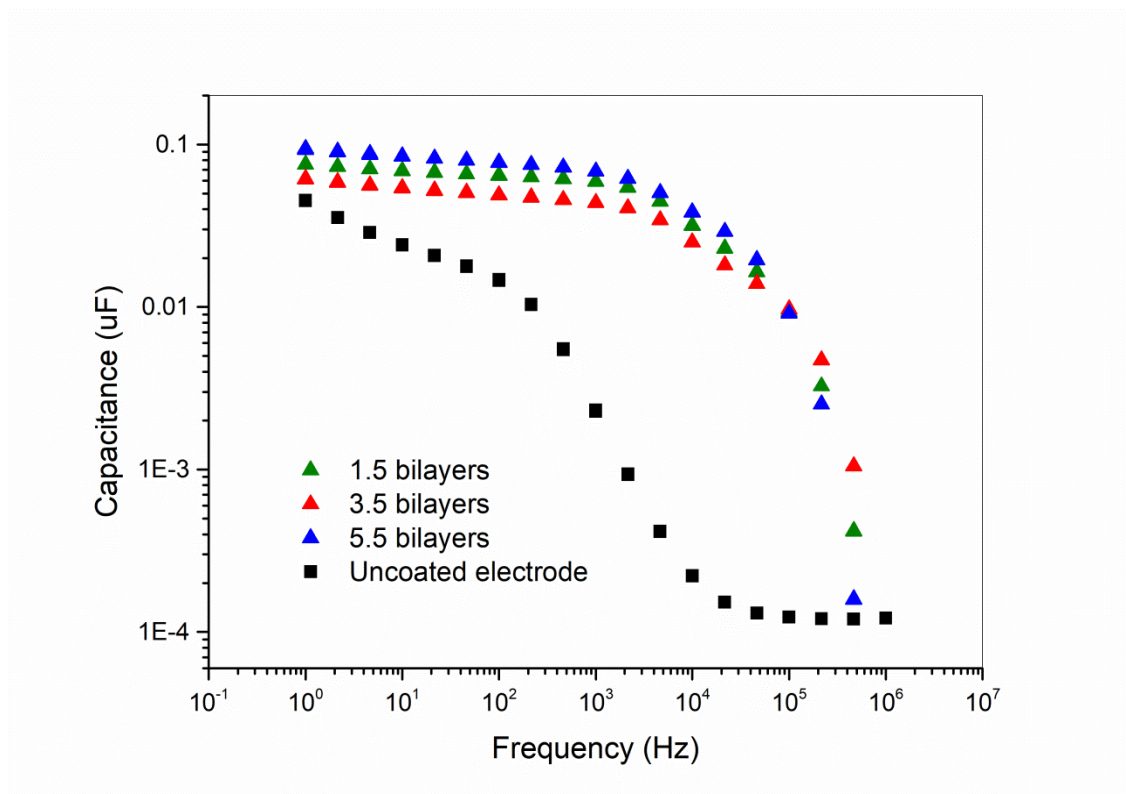


Figure S3. Capacitance spectra for an uncoated interdigitated electrode and electrodes functionalized with 1.5, 3.5 and 5.5 CHI/HA bilayers.

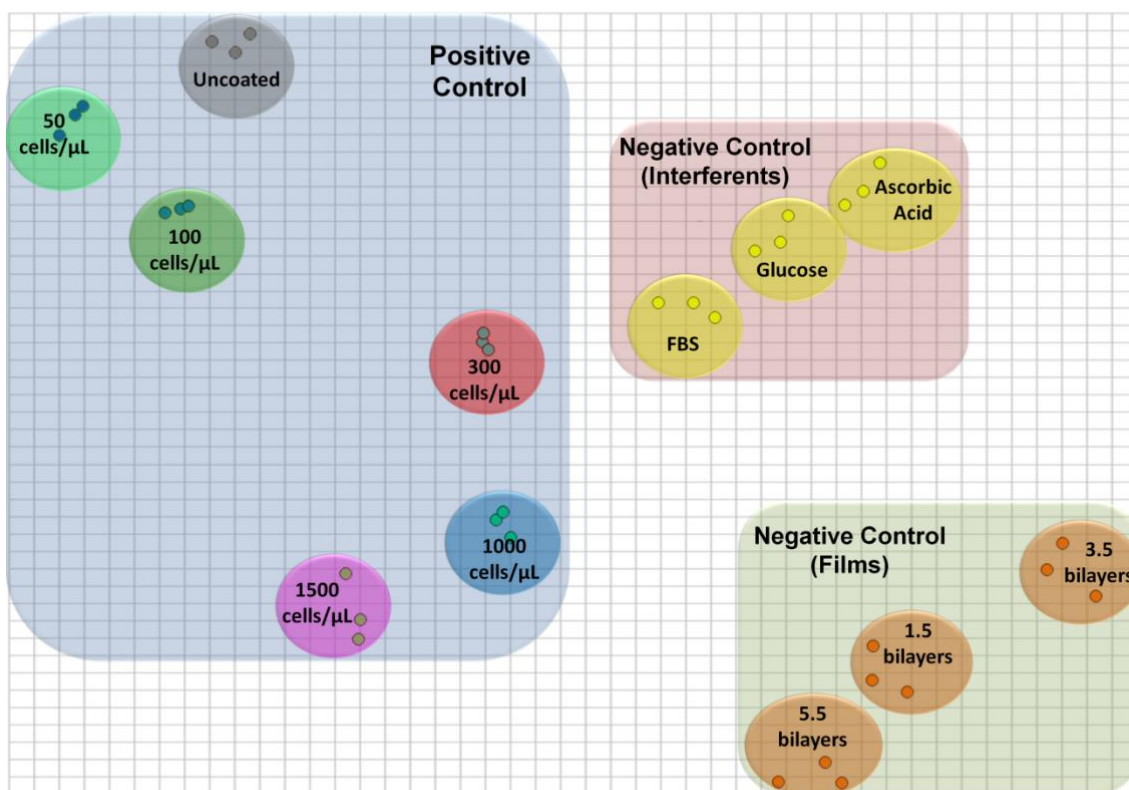


Figure S4. 2D DMAP plot for the capacitance spectra for uncoated electrodes and 3.5 CHI/HA multilayers functionalized electrodes exposed to different tumor cell concentrations (50-1500 cells/ μL) and non-specific analytes (glucose (100 mg/dL), ascorbic acid (4.8 mg/mL) and fetal bovine serum (FBS)). Here, a second control experiment was performed in PBS solution with electrodes covered with different number of HA/CHI bilayers (1.5, 3.5 and 5.5).

