Reagentless Glucose Biosensor Based on Combination of Platinum Nanostructures and Polypyrrole Layer

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Supplementary data

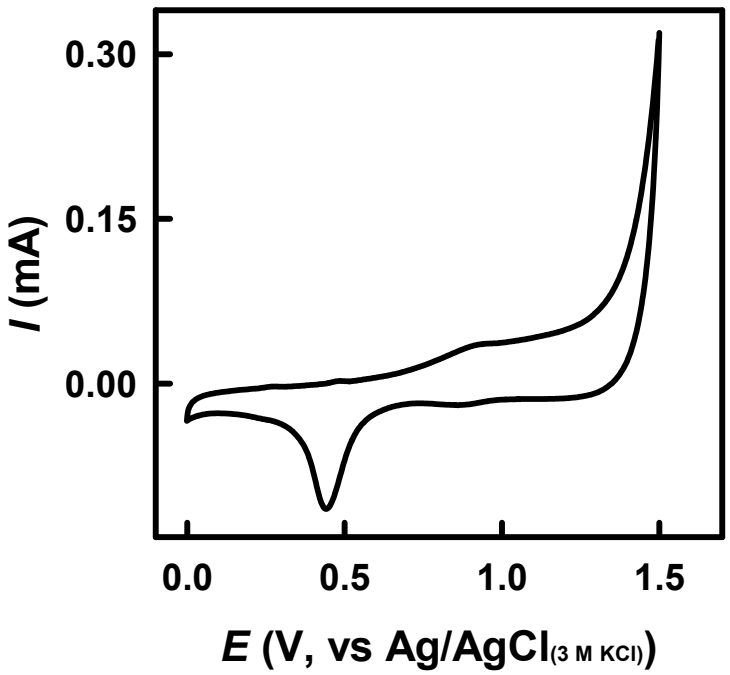

Figure S1. Cyclic voltammogram registered using GR/PtNS electrode in 0.5 M H_2SO_4 solution.

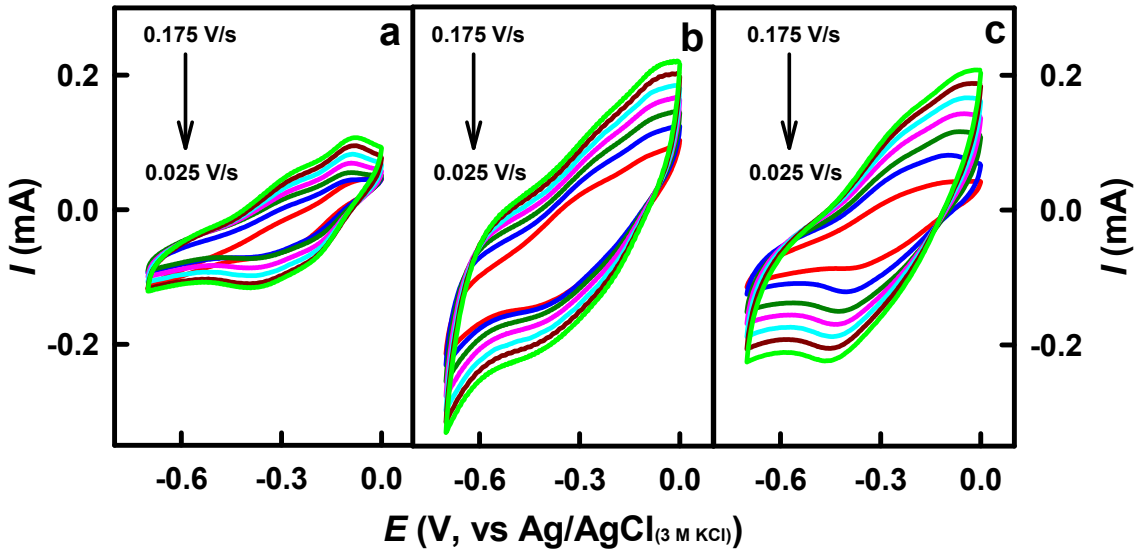

Figure S2. Cyclic voltammograms of GR/PD/GOx (**a**), GR/PtNS/PD/GOx (**b**), and GR/PtNS/PD/GOx/Ppy (**c**) electrodes recorded at scan rates from 0.025 to 0.175 V/s in the solution of 1 mM $Ru(NH_3)_6Cl_3$ with 0.1 M KCl.

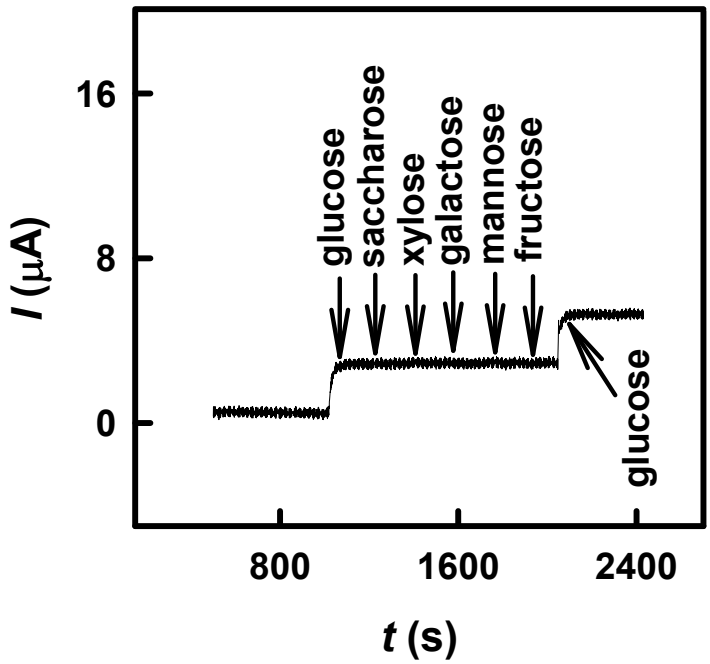

Figure S3. The impact of sugars on the current response of glucose biosensors based on the GR/PtNS/PD/GOx/Ppy electrode. An amperogram was registered in a 10-times diluted sample of blood serum after the addition of 10.0 mM glucose and 1.0 mM of various sugars at +0.30 V vs. $Ag/AgCl_{(3M\ KCl)}$.

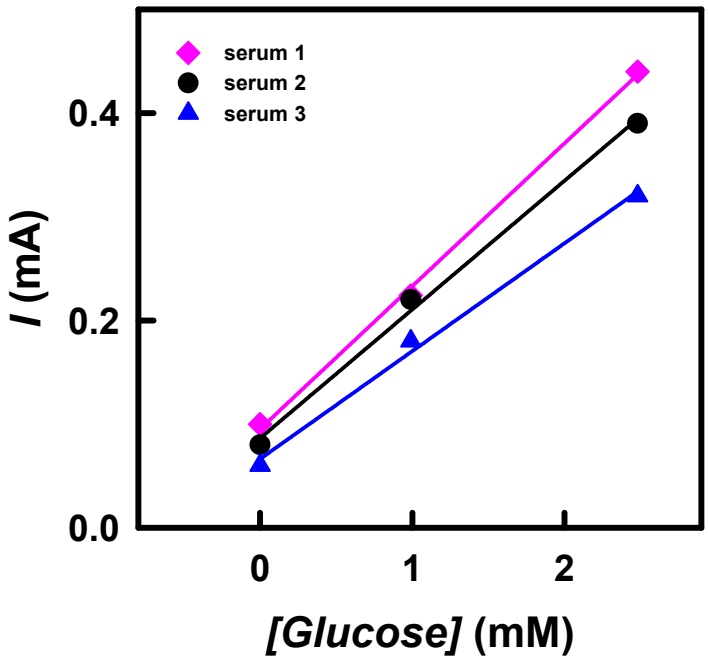

Figure S4. The determination of glucose in blood serum. Measurements were performed at +0.30 V vs. $Ag/AgCl_{(3M\ KCl)}$ in a 10-times diluted sample of blood serum with 0.708 mM of glucose using the addition method.