biosensors

MDPI

Supplementary Material

The Impact of Glucose Oxidase Immobilization on Dendritic Gold Nanostructures on the Performance of Glucose Biosensors

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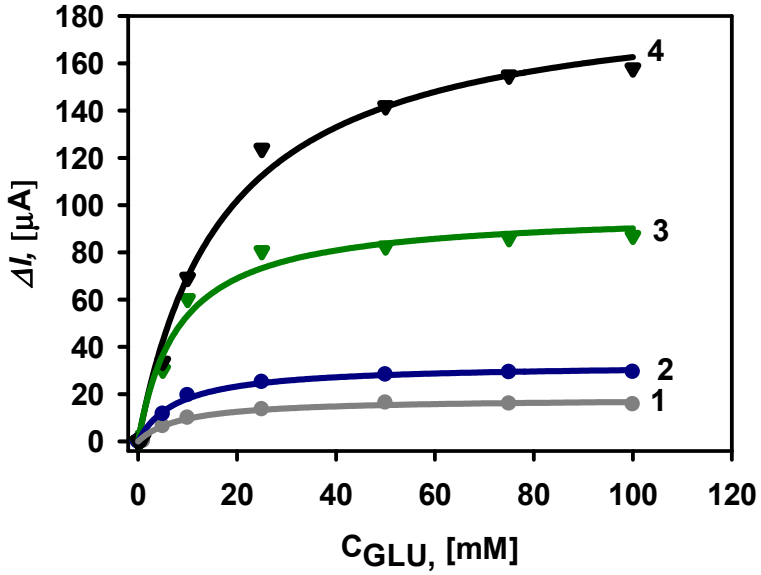

Figure S1. Calibration plots of glucose biosensors based on GA-GOx-SAM/DGNs/GR electrode without additional cross-linking with 25% glutaraldehyde vapour (curve 1), and after cross-linking for 3 min (curve 2), 10 min (curve 3) and 15 min (curve 4). The amperometric response at +0.3 V was registered in 0.05 M SA buffer with 0.1 M KCl (pH 6.0) in the presence of 2.0 mM PMS.

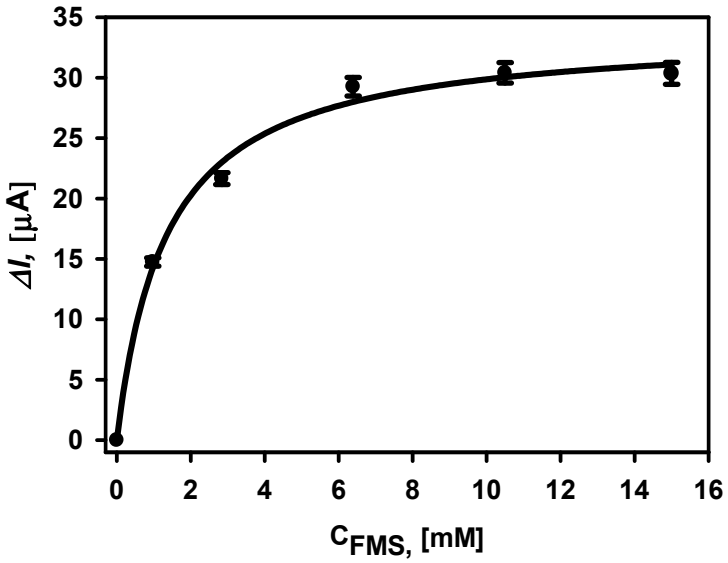

Figure S2. Selection of the optimal concentration of redox mediator PMS. Experiments were performed using GA-GOx-SAM/DGNs/GR electrode. The amperometric response at +0.3 V was registered in 0.05 M SA buffer with 0.1 M KCl (pH 6.0).

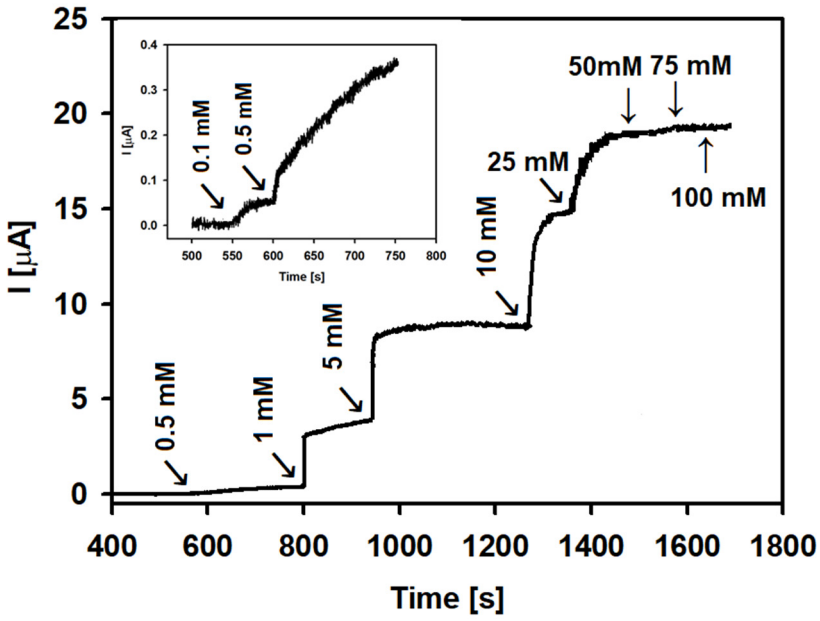

Figure S3. The amperogram of biosensor based on GOx/SAM/DGNs/GR electrode after addition of glucose. The current response was registered at +0.3 V in 0.05 M SA buffer with 0.1 M KCl (pH 6.0) in the presence of 6.0 mM PMS.

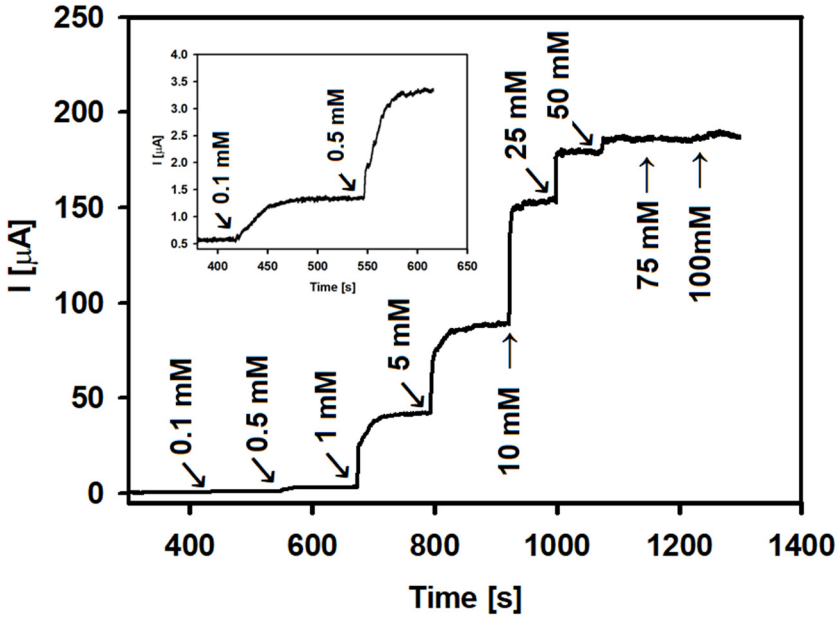

Figure S4. The amperogram of biosensor based on GA-GOx/DGNs/GR electrode after addition of glucose. The current response was registered at +0.3 V in 0.05 M SA buffer with 0.1 M KCl (pH 6.0) in the presence of 6.0 mM PMS.

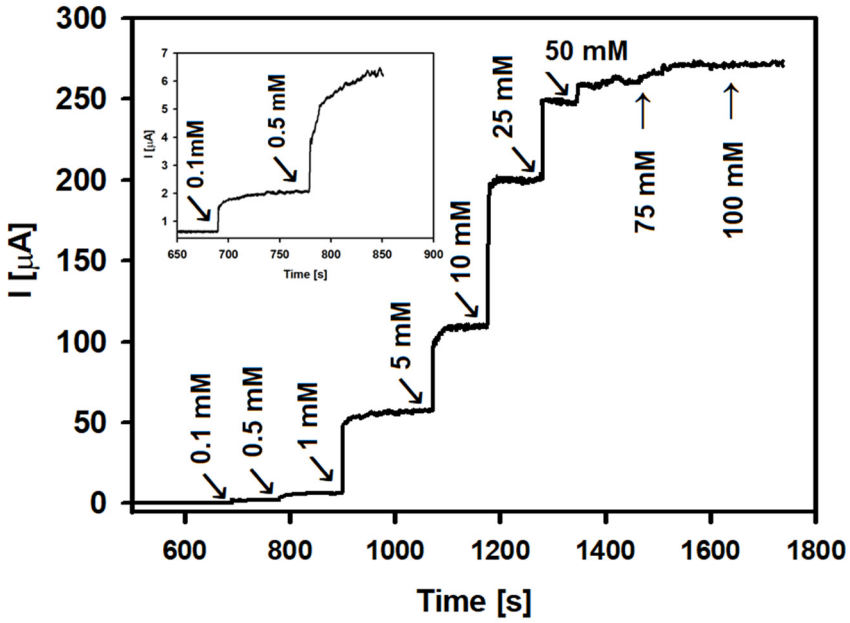

Figure S5. The amperogram of biosensor based on GA-GOx/SAM/DGNs/GR electrode after addition of glucose. The current response was registered at +0.3 V in 0.05 M SA buffer with 0.1 M KCl (pH 6.0) in the presence of 6.0 mM PMS.