

SUPPORTING INFORMATION

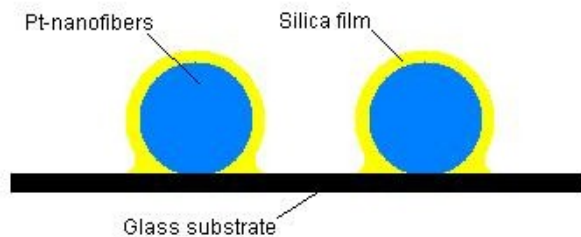


Figure S1. Illustration of the platinum nanofiber deposited on the glass substrate

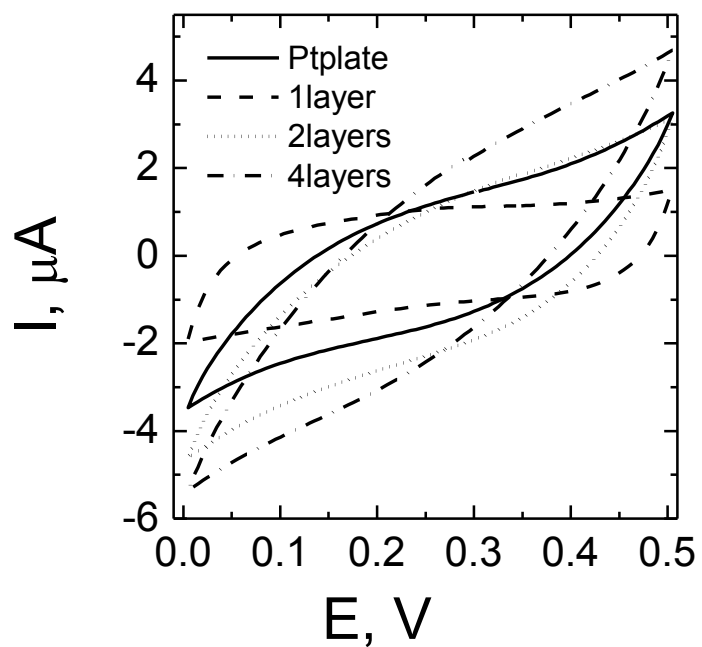


Figure S2. Background cyclic voltammograms in 1 mM KCl recorded with different number of layers of Pt-nanofibers and Pt-bare electrode of the same geometric area. Potential scan rate was $100 \text{ mV}\cdot\text{s}^{-1}$.

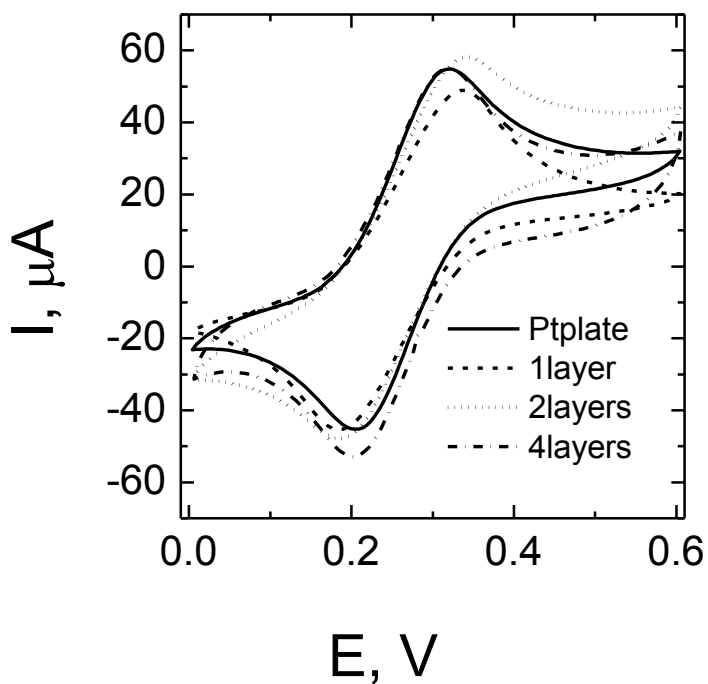


Figure S3. Cyclic voltammograms of 1 mM ferrocene-dimethanol on the platinum nanofibers with different number of layers and Pt-bare electrode. The supporting electrolyte was 0.1 M KCl. Potential scan rate was $100 \text{ mV}\cdot\text{s}^{-1}$.

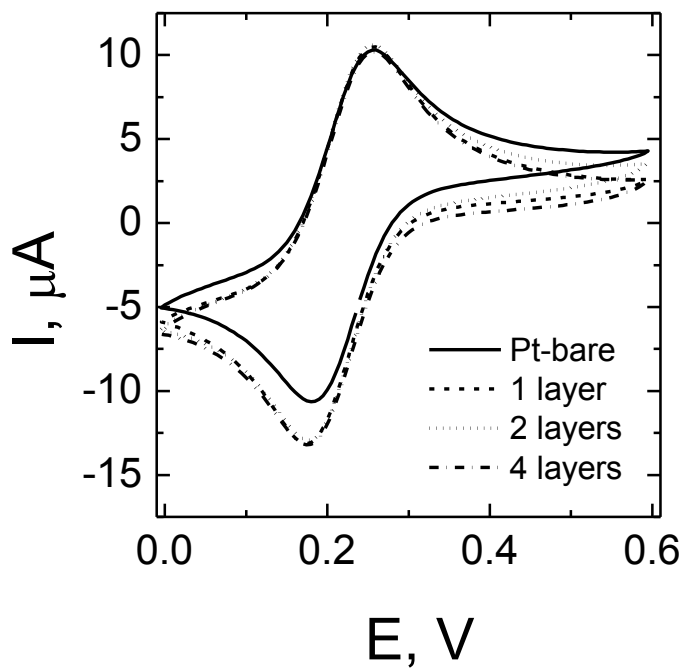


Figure S4. Cyclic voltammograms of 1 mM $\text{K}_3[\text{Fe}(\text{CN})_6]$ on the platinum nanofibers with different number of layers and Pt-bare electrode. The supporting electrolyte was 0.1 M KCl. Potential scan rate was $5 \text{ mV}\cdot\text{s}^{-1}$.

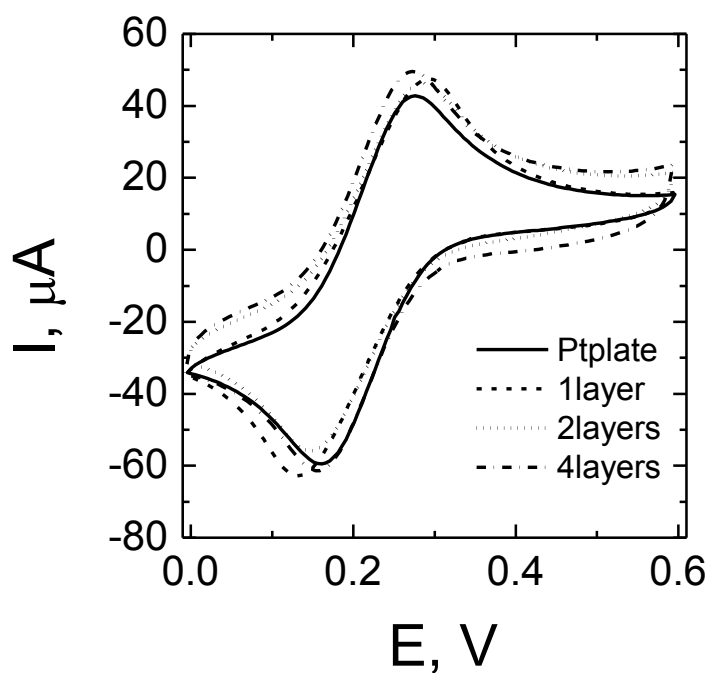


Figure S5. Cyclic voltammograms of 1 mM $K_3[Fe(CN)_6]$ on the platinum nanofibers with different number of layers and Pt-bare electrode. The supporting electrolyte was 0.1 M KCl. Potential scan rate was $100 \text{ mV}\cdot\text{s}^{-1}$.

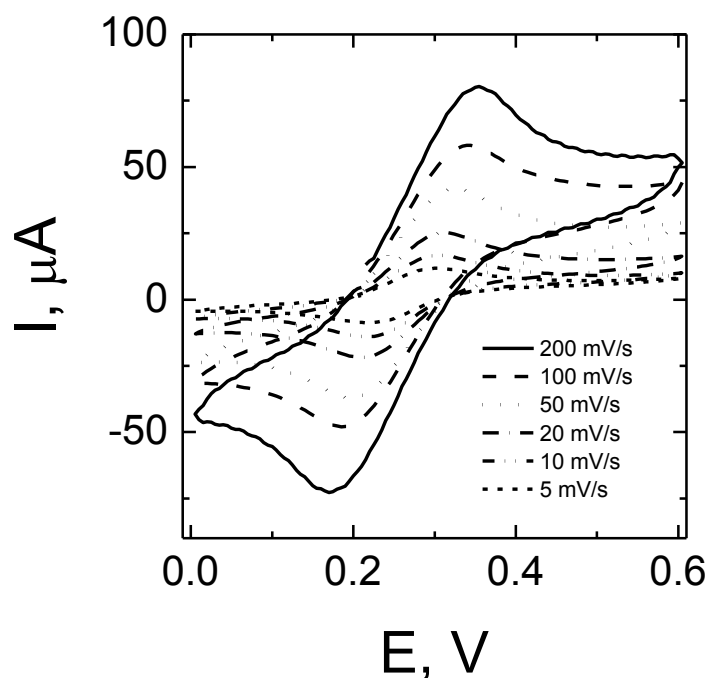


Figure S6. Cyclic voltammograms of 1 mM Fc-dimethanol on the platinum nanofibers (2 layers) with different scan rates. The supporting electrolyte was 0.1 M KCl.

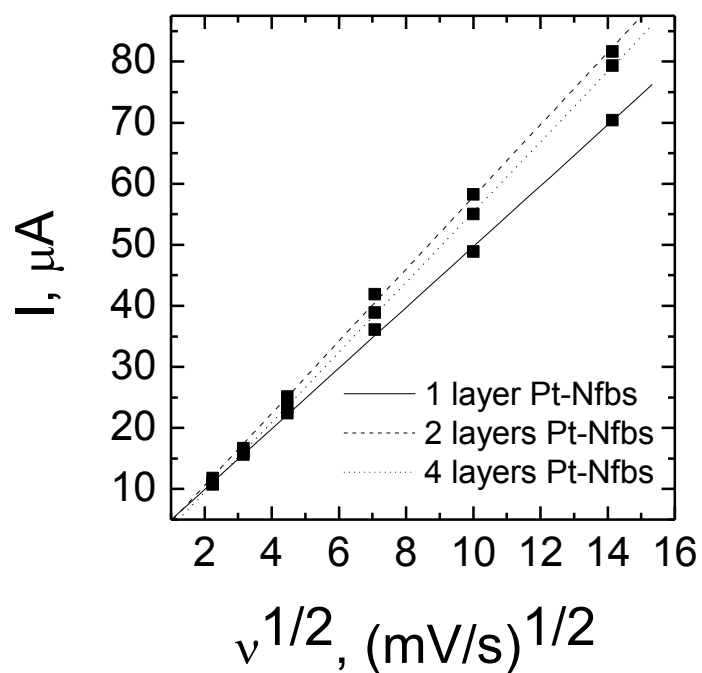


Figure S7. Dependence of the anodic peak height of 1 mM Ferrocene-dimethanol from the square root of the potential scan rate. Measurements have been done with Pt-Nfbs assembly made of 1, 2 and 4 layers.

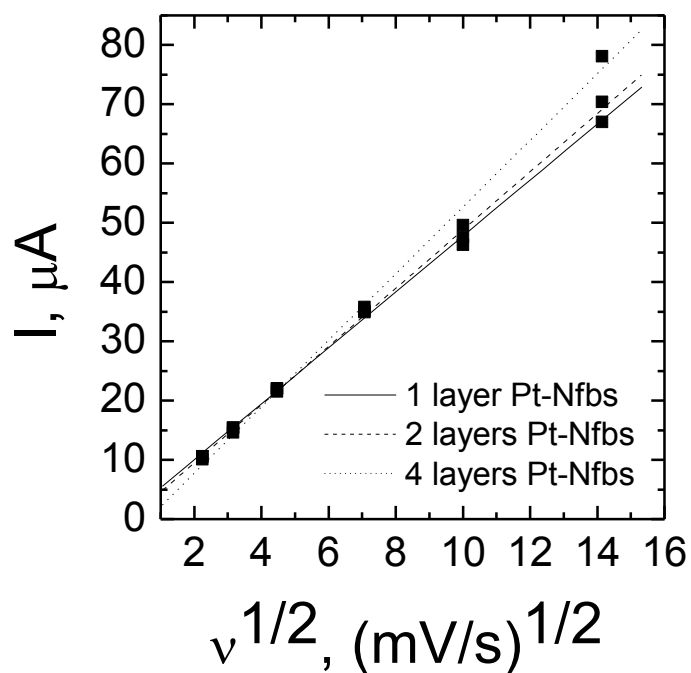


Figure S8. Dependence of the anodic peak height of 1 mM $K_3[Fe(CN)_6]$ from the square root of the potential scan rate. Measurements have been done with Pt-Nfbs assembly made of 1, 2 and 4 layers.

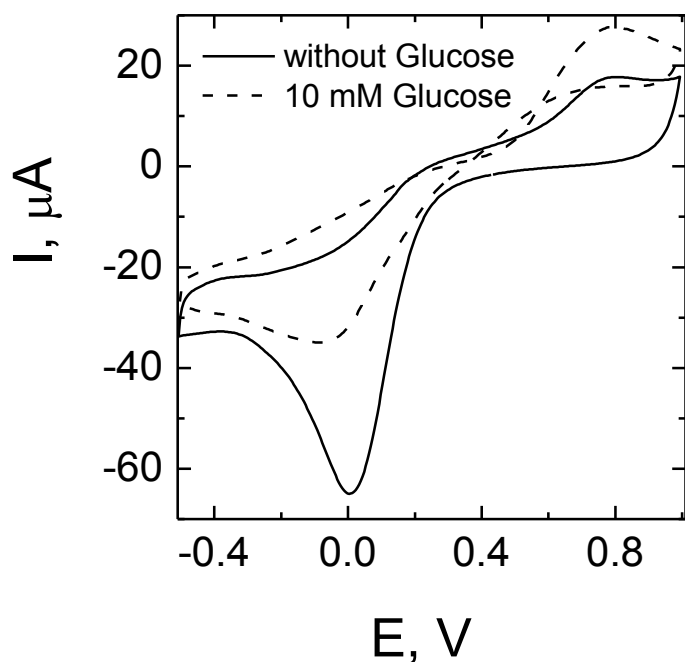


Figure S9. Cyclic voltammograms of the Pt-nanofibers modified with silica film containing glucose oxidase in the absence and presence of glucose. Potential scan rate was $100 \text{ mV}\cdot\text{s}^{-1}$.

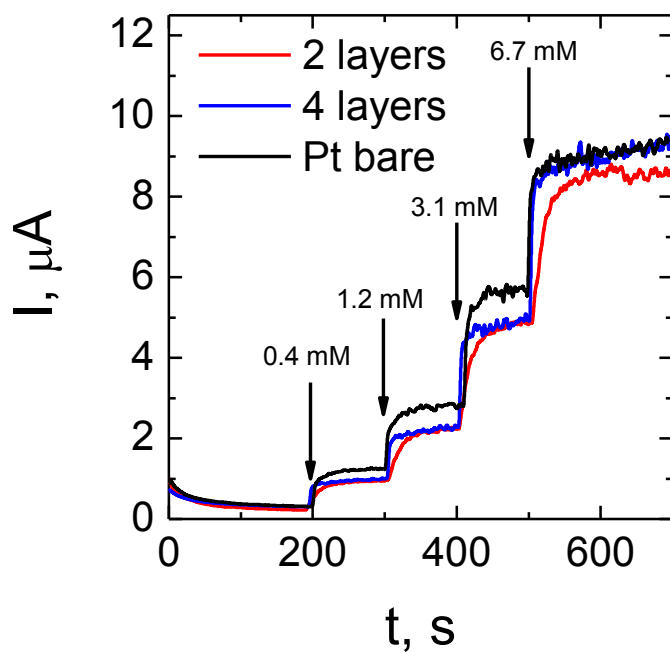


Figure S10. Amperometric current-time response of Pt bare, 2 layers and 4 layers Pt-Nfbs coated with a silica film encapsulating. $+0.6 \text{ V}$ was applied at the working electrode during the addition of increasing amounts of glucose.