

Electronic Supporting Information

to the article of Tatjana Kulikova, Pavel Padnya, Igor Shiabiev, Alexey Rogov, Ivan Stoikov and Gennady Evtugyn “Electrochemical Sensing of Interactions Between DNA and Charged Macrocyces”

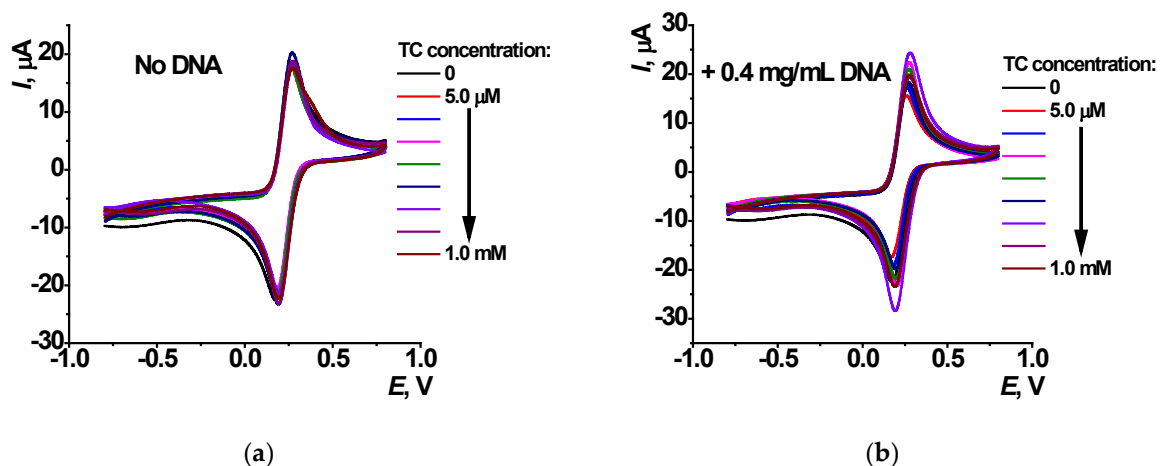


Figure S1. Cyclic voltammograms of 5.0 mM of $K_3[Fe(CN)_6]$ recorded on the bare GCE modified with TC (a) and TC/DNA (b). The concentration in the solution used for GCE incubation equal to 5.0, 50, 75, 100 μM , 0.25, 0.5, 0.75, 1.0 mM. Measurements in 0.1 M HEPES, pH = 7.0, scan rate 100 mV/s.

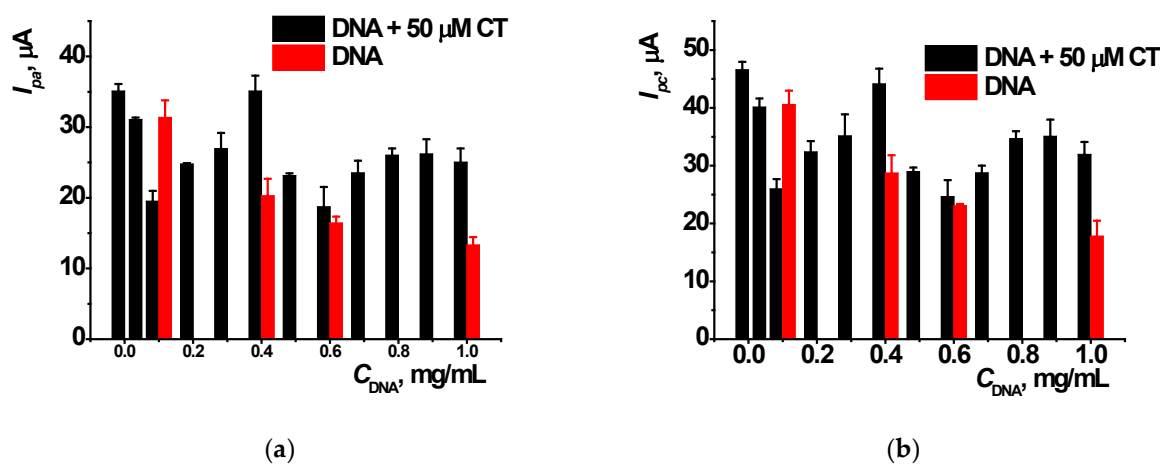


Figure S2. The influence of the concentration of the DNA solution added to the GCE / CB together with 50 μM TC on the anodic (a) and cathodic (b) peak currents of 5.0 mM ferricyanide ion. Measurements in 0.1 M HEPES, pH = 7.0, scan rate 100 mV/s. Average \pm S.D. for five electrodes.

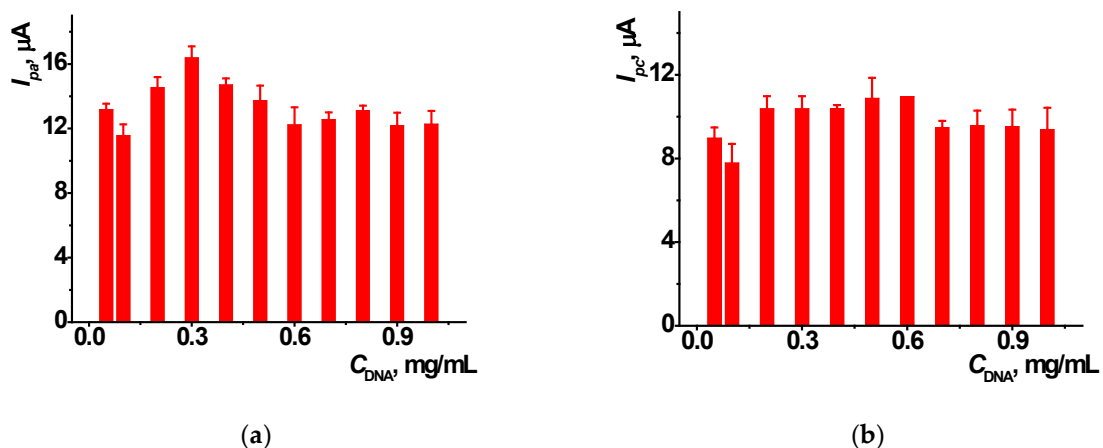


Figure S3. Anodic (a) and cathodic (b) peak currents of 0.5 mM methylene green recorded on the GCE covered with the mixture of 50 μM TC and DNA solution of various concentration. Measurements in 0.1 M HEPES, pH = 7.0, scan rate 100 mV/s. Average \pm S.D. for five electrodes

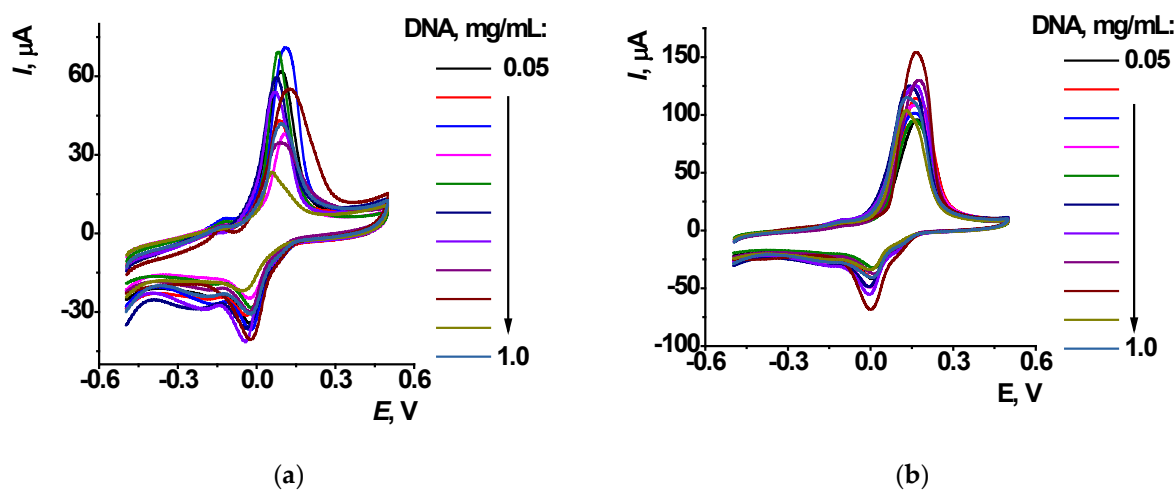


Figure S4. Cyclic voltammograms of 5.0 mM methylene green recorded on the GCE covered with CB and the mixture of 50 of 50 μM TC and DNA solution (concentrations 0.05, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9 and 1.0 mg/mL). (a) – first scan; (b) – 10th scan. Measurements in 0.1 M HEPES, pH = 7.0, scan rate 100 mV/s.

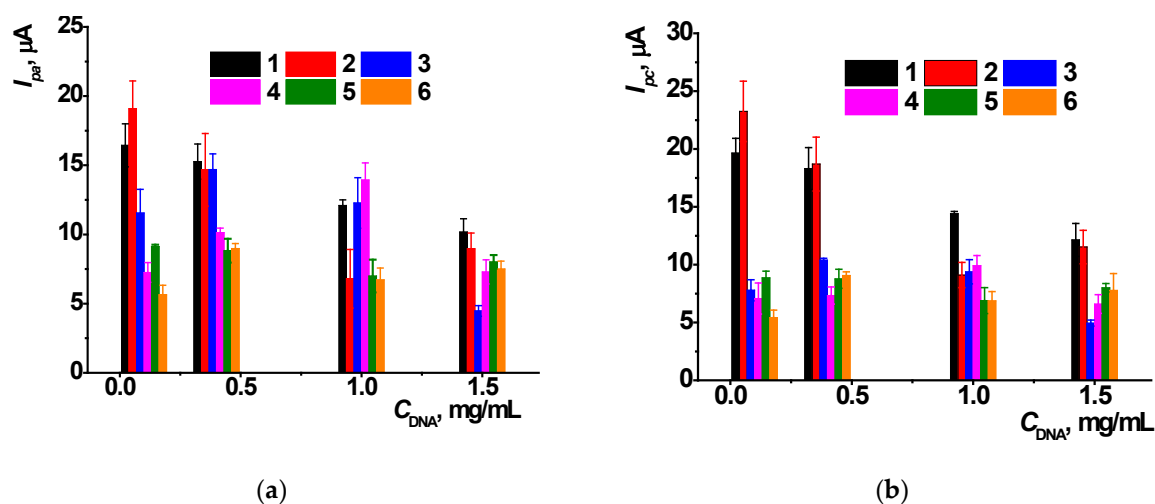


Figure S5. The influence of the anodic (a) and cathodic (b) peak currents of ferricyanide (1, 2), methylene green (3,4) and hydroquinone (5,6) on the concentration of the DNA solution added to the GCE / CB electrode together with 50 μM TC. Concentration of each redox probe was 0.5 mM, measurements in 0.1 M HEPES, scan rate 100 mV/s. Average \pm S.D. for five electrodes.