Supplementary File

Nitrogen-Doped Graphene: The Influence of Doping Level on the Charge-Transfer Resistance and Apparent Heterogeneous Electron Transfer Rate

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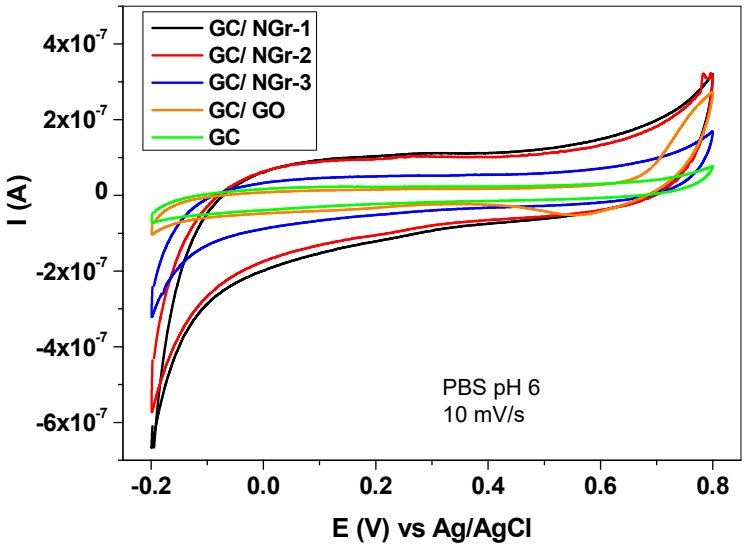

Figure S1. Cyclic voltammograms recorded with bare and graphene-modified electrodes in pH 6 PBS solution; scan rate 10 mV/s.

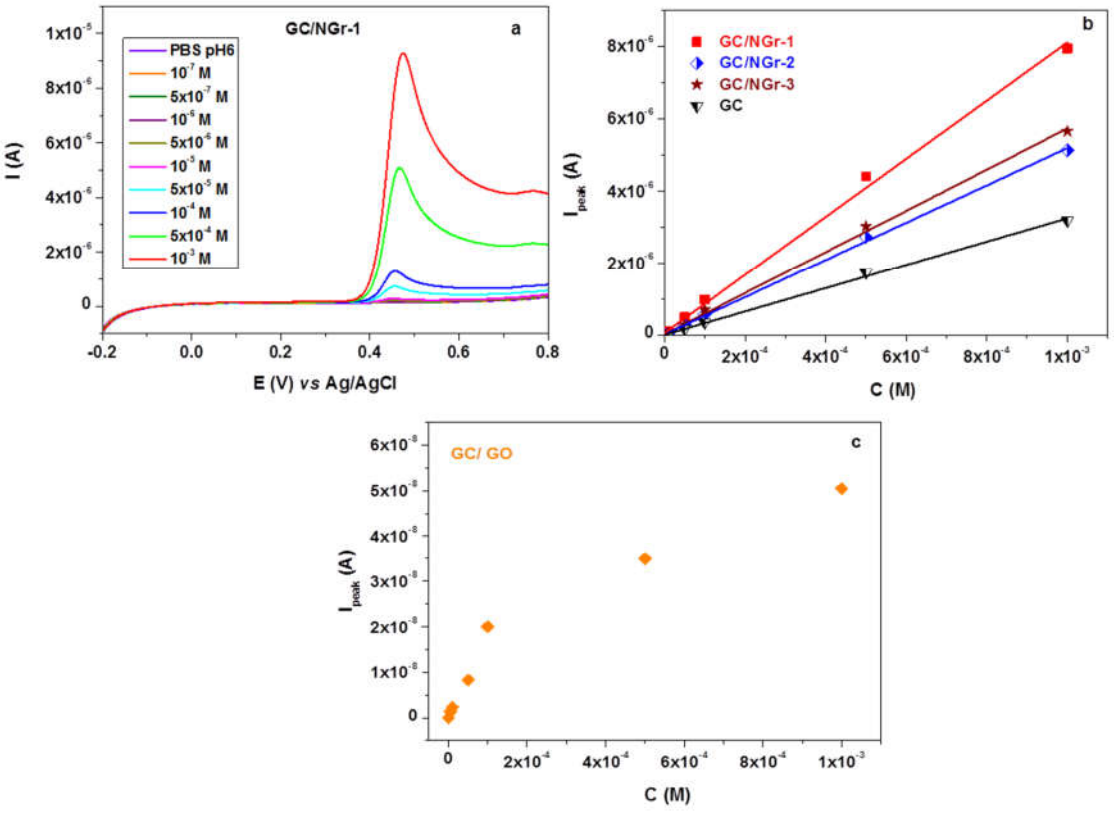

Figure S2. Linear sweep voltammograms recorded with GC/NGr-1 electrode in solutions containing various concentrations of 8-OHdG, 10^{-7} – 10^{-3} M; pH6 PBS supporting electrolyte; scan rate 10 mV/s (**a**); the corresponding calibration plots for 8-OHdG obtained with bare GC and nitrogen-doped graphene modified electrodes (**b**); the calibration plot for 8-OHdG obtained with GC/GO electrode (**c**).

Table S1. Electrochemical parameters obtained from CVs (Figure S1) and calibration plots (Figure S2) for bare and graphene-modified electrodes.

Electrode	Ic (A)	Rest Potential (V)	Sensitivity (mA/M)	LOD (M)	Linear Range (M)
GC/NGr-1	1.15×10^{-7}	0.36	8	9×10^{-8}	$3 \times 10^{-7} – 1 \times 10^{-3}$
GC/NGr-2	1.01×10^{-7}	0.36	5.1	1.5×10^{-7}	$5 \times 10^{-7} – 1 \times 10^{-3}$
GC/NGr-3	5.58×10^{-8}	0.38	5.7	1.5×10^{-7}	$5 \times 10^{-7} – 1 \times 10^{-3}$
GC/GO	1.48×10^{-8}	0.33	0.19	1.5×10^{-6}	$5 \times 10^{-6} – 1 \times 10^{-4}$
GC	2.39×10^{-8}	0.27	3.2	1.5×10^{-7}	$5 \times 10^{-7} – 1 \times 10^{-3}$