## **Supplementary Figures**

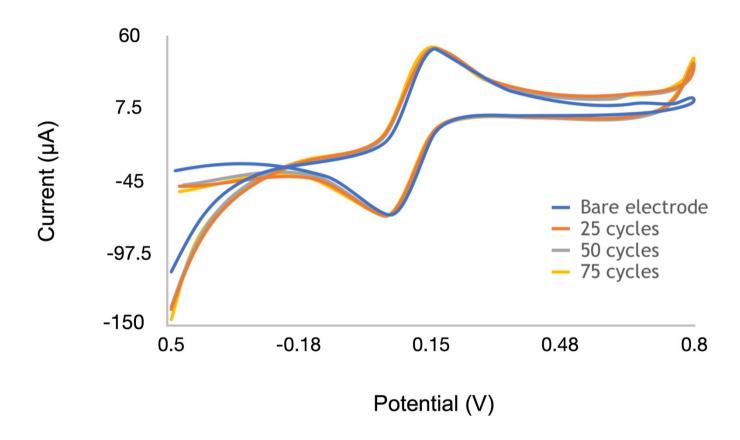
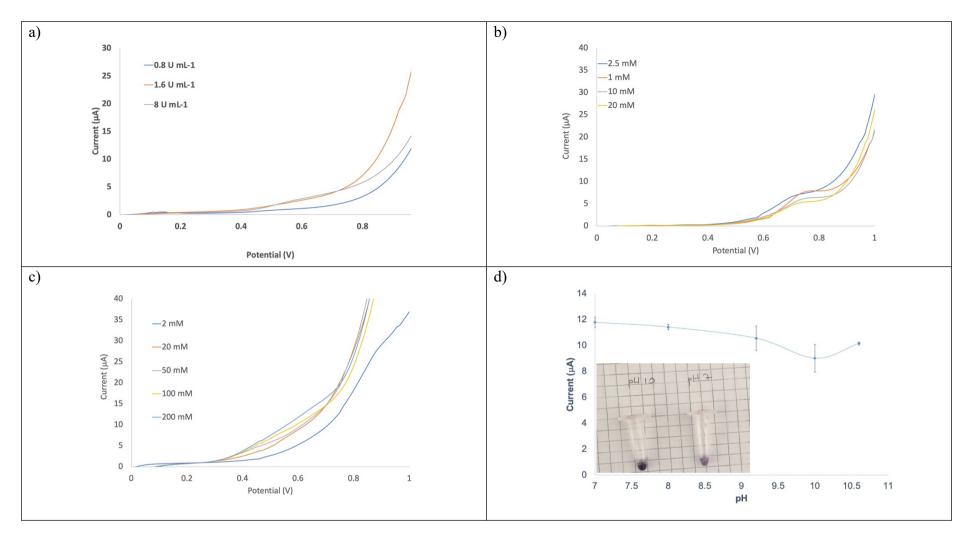


Figure S1. Electrochemically reduced GO CV measurements in the potential range from -0.5 to 0.8 V.



**Figure S2.** Optimisation of the experimental conditions for the reagents used. All measurements were performed with linear sweep voltammetry technique (Scan rate: 50 mV.s<sup>-1</sup>, range: 0-1 V), a) enzyme concentration (Phe: 2mg/dL, NAD<sup>+</sup>: 20 mM, pH 10.4 20 mM glycine buffer), b) NAD<sup>+</sup> concentration (Phe: 2mg/dL, pH 10.4 200 mM glycine buffer, enyzme: 1.6 U ml<sup>-1</sup>), c) glycine buffer concentration (0.6 mM NAD<sup>+</sup>) d) pH dependence of NADH repsonses at 20 mM glycine buffer (inset: colorimetric enzyme activity test at pH 10 and pH 7).