Preparation of a novel hydrazine electrochemical sensor using Fe_2O_3@ZnO core-shell nanoparticles

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Fig. 1S. Cyclic voltammograms of the Fe_2O_3@ZnO modified GCE prepared (a) electrochemically and (b) by the drop casting method.

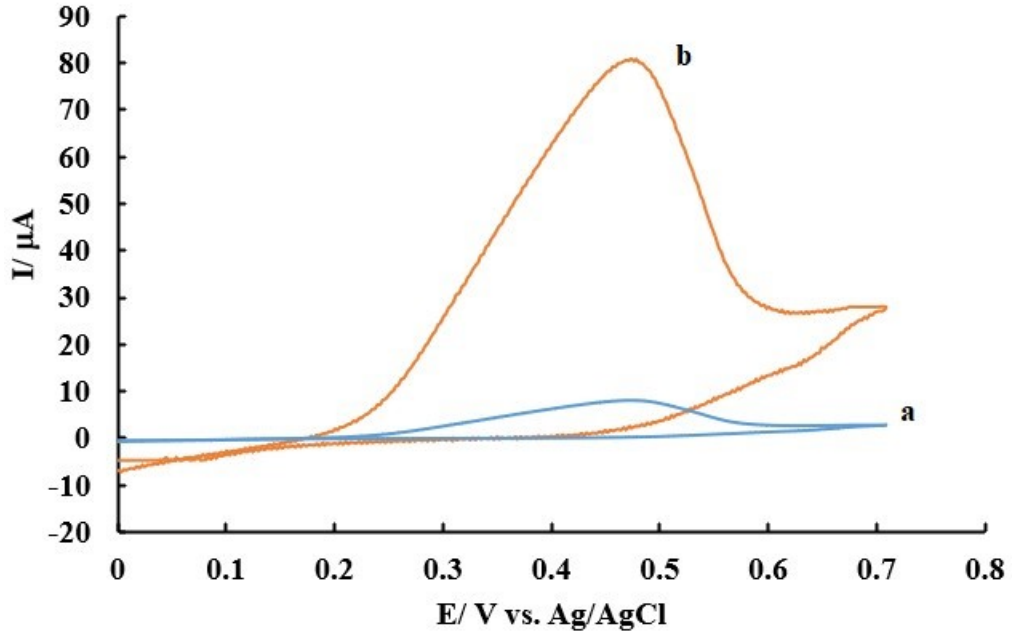

Fig. 2S. Variation of LSV signal of the Fe_2O_3@ZnO modified GCE prepared using different replicates of drope casting

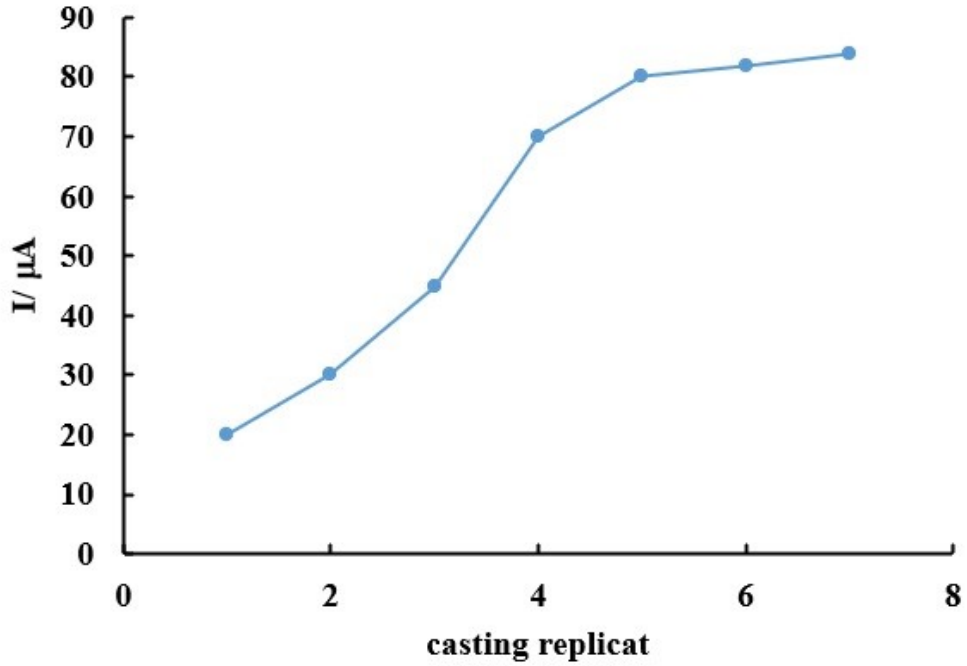

Fig. 3S. Consecutive linear sweep voltammetry (LSV) measurements conducted under optimized experimental conditions

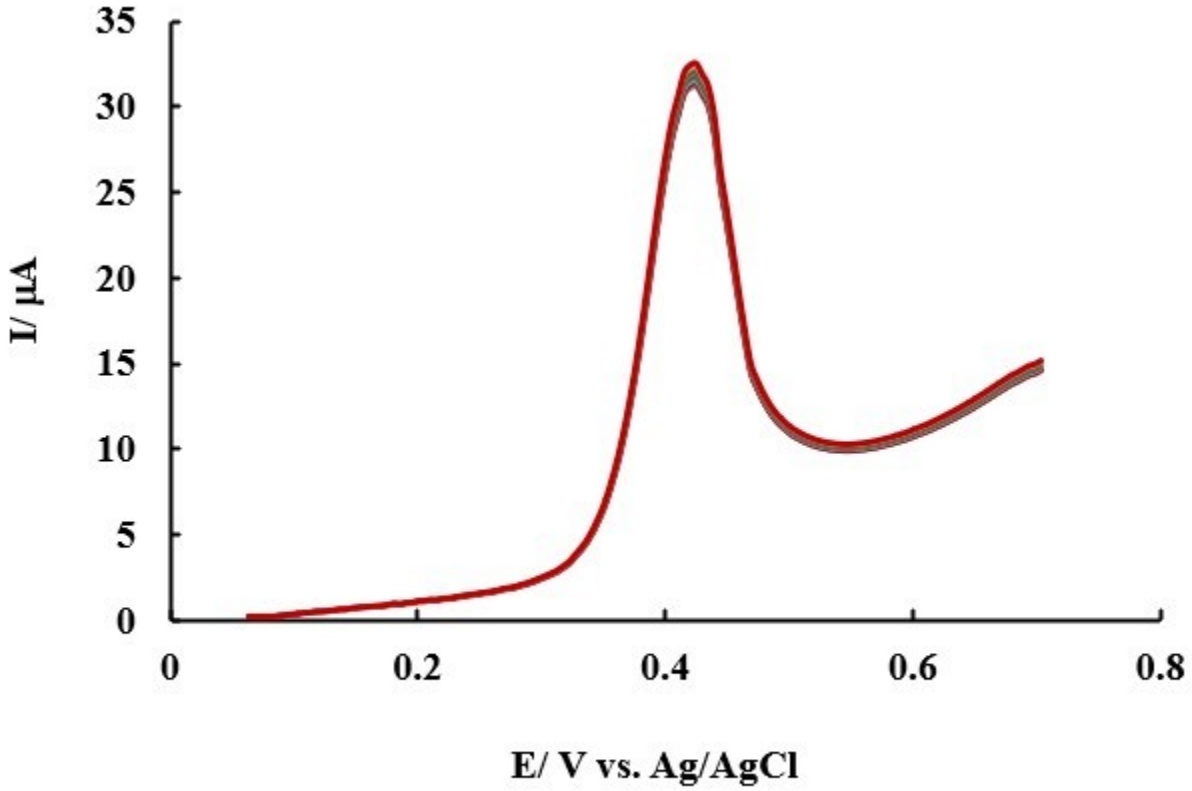

Fig. 4S. Histogram illustrating the repeatability of LSV responses for the proposed sensor in 30 μM HAZ across multiple scans (dipping, potential scanning, and washing)

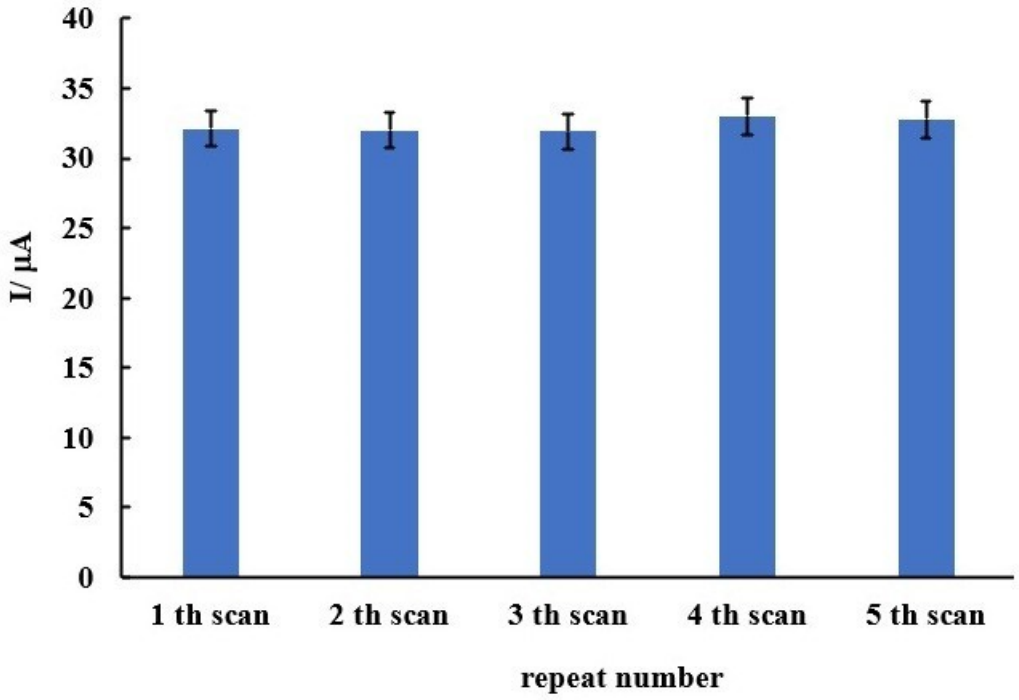

Fig. 5S. Histogram showing the LSV responses for 30 μM HAZ using a newly prepared electrode and after storage for various durations

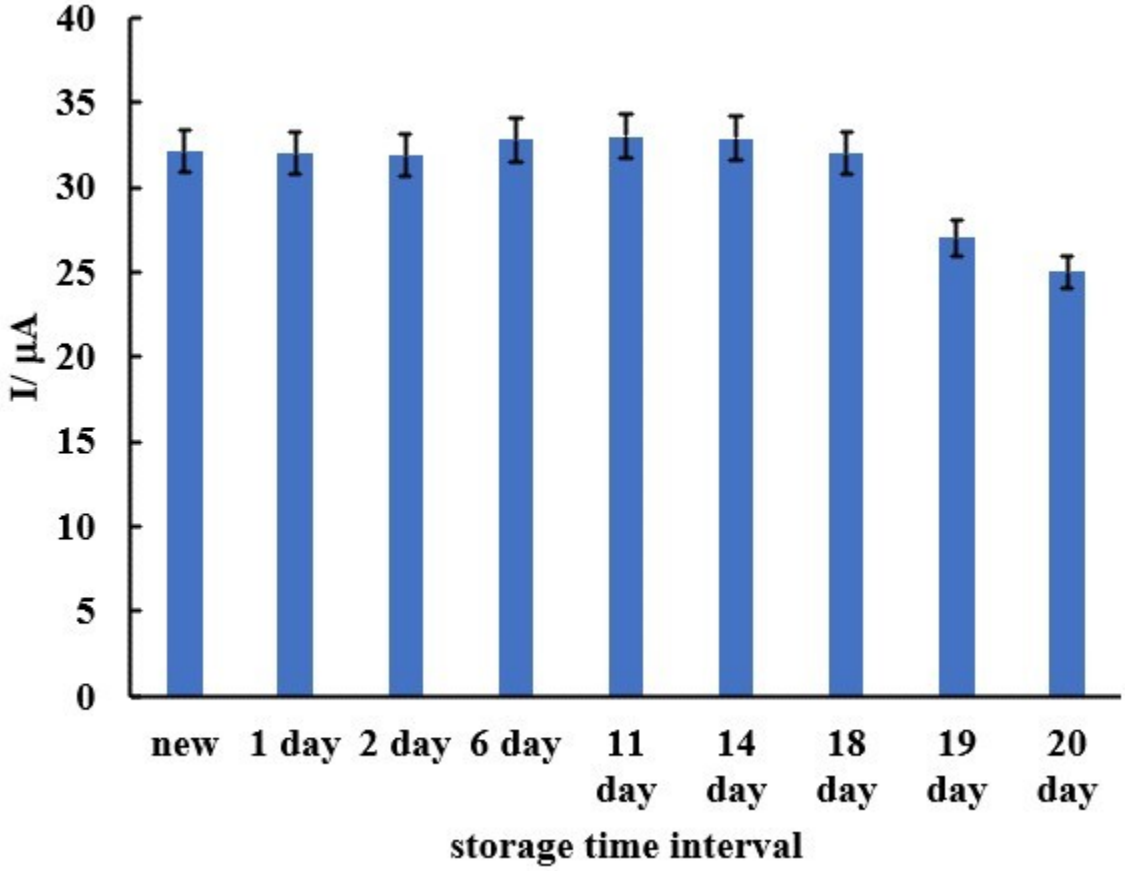

Fig. 6S. LSV responses obtained from five independently prepared sensors measured in 30 μM HAZ, demonstrating sensor-to-sensor reproducibility.