Supporting Information

Gold Nanoparticle-Redox Ionic Liquid based Nanoconjugated Matrix as a Novel Multifunctional Biosensing Interface

Kandaswamy Theyagarajan^a, Sangeeta Yadav^{b,c}, Jitendra Satija^c, Kathavarayan Thenmozhi^a* and Sellappan Senthilkumar^a*

^aDepartment of Chemistry, School of Advanced Sciences, Vellore Institute of Technology (VIT), Vellore-632014, India.

^bSchool of Biosciences and Technology, Vellore Institute of Technology (VIT), Vellore-632014, India.

°Centre for Nanobiotechnology, Vellore Institute of Technology (VIT), Vellore-632014, India.

*Corresponding Authors:

Email: kt.thenmozhi@gmail.com; k.thenmozhi@vit.ac.in (Kathavarayan Thenmozhi)

Email: senthilanalytical@gmail.com; senthilkumar.s@vit.ac.in (Sellappan

Senthilkumar)

Number of pages : 5

Number of figures : 6

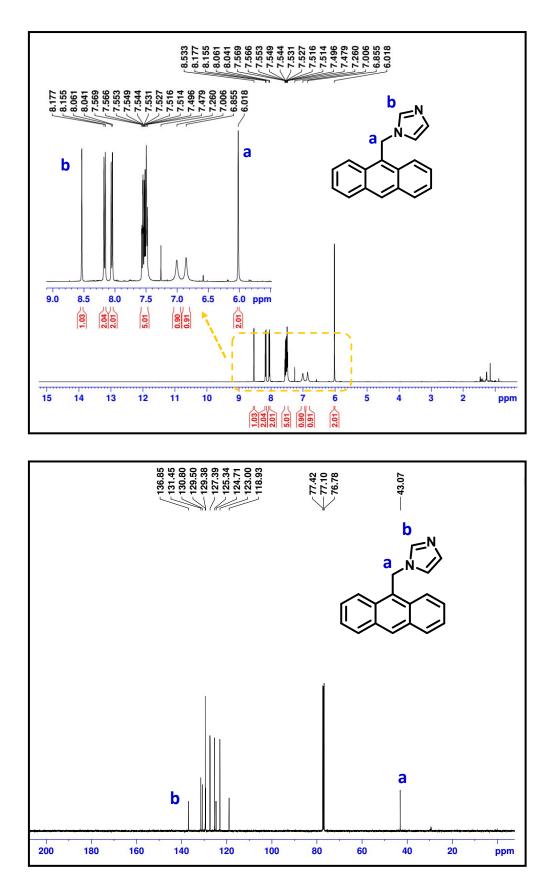


Fig. S1 ¹H and ¹³C NMR spectra of 1-(anthracen-9-ylmethyl)-1H-imidazole

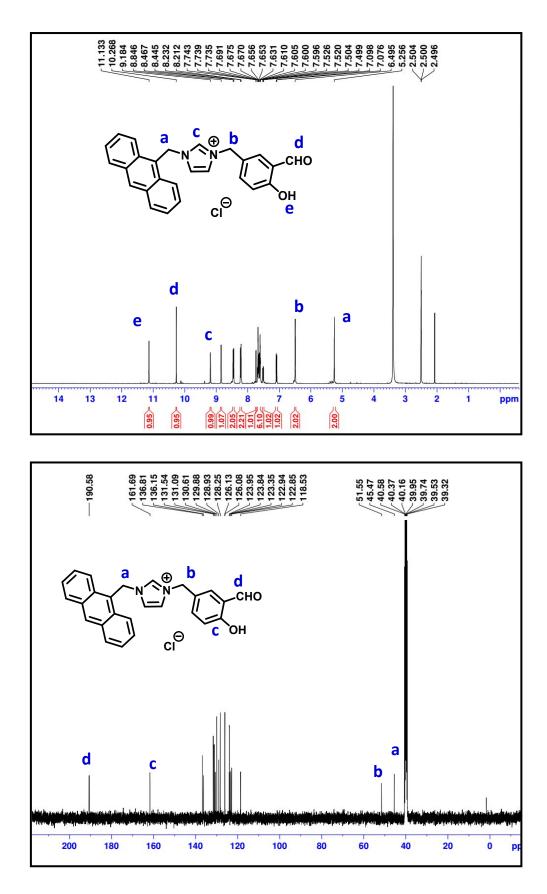


Fig. S2 ¹H and ¹³C NMR spectra of CHO-AIL

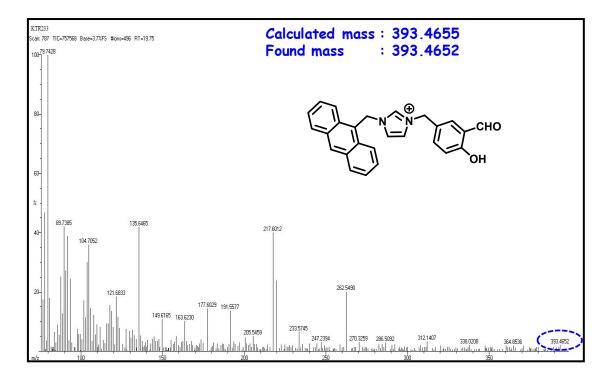


Fig. S3 HRMS spectrum of CHO-AIL

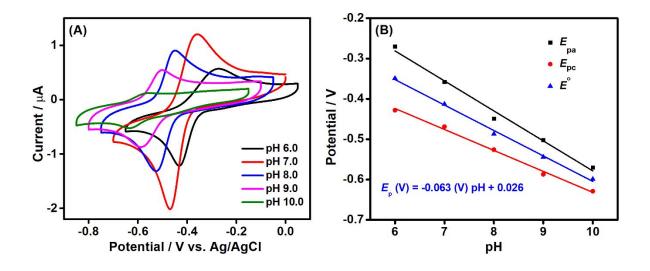


Fig. S4 (A) CVs of the fabricated biosensor in different pH and (B) Corresponding linear plot of peak potentials vs pH.

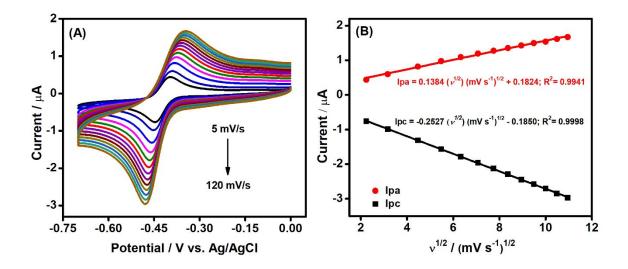


Fig. S5 (A) Effect of scan rate on the current response of fabricated biosensor and (B) Corresponding linear plot of peak current vs. square root of scan rate.

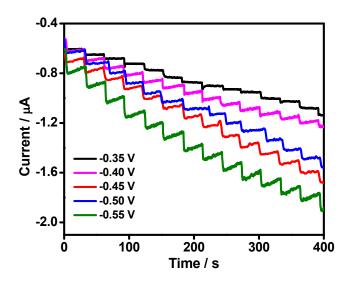


Fig. S6 Amperometric response of the fabricated biosensor for the successive additions of H_2O_2 in different operating potentials under constant stirring (350 rpm).