Electronic Supplementary Material (ESI) for Analytical Methods.

Ru-W Modified graphitic carbon nitride by monomer complexation synthesis approach from tailored polyoxometalate: Towards electrochemical detection of hydrogen peroxide released by cells

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Supporting Information

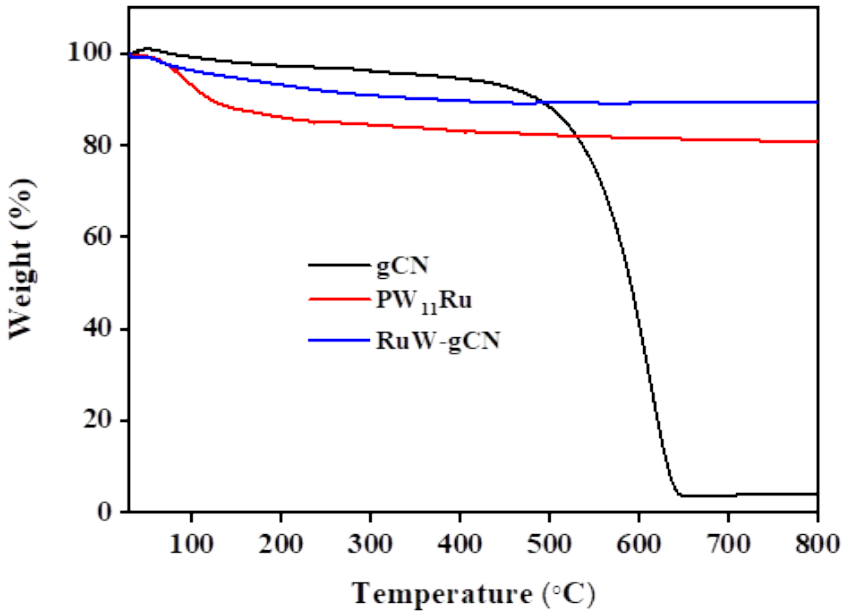

Fig. S1. TGA plot of gCN, $PW_{11}Ru$ and RuW-gCN.

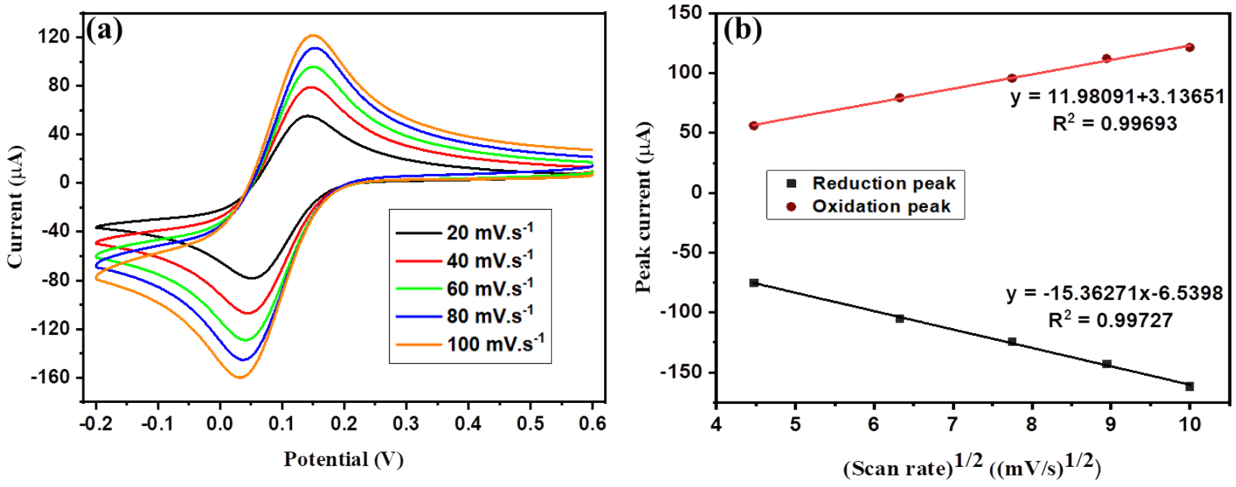

Fig.S2. (a) Cyclic voltammogram of RuW-gCN modified GCE in 0.1 M KCl with 10 mM $[Fe(CN)_6]^{3-/4-}$ at varying scan rate with a potential window from -0.2 V to 0.6 V. (b) The Cottrell plot showing the effect of scan rate on the peak current value.

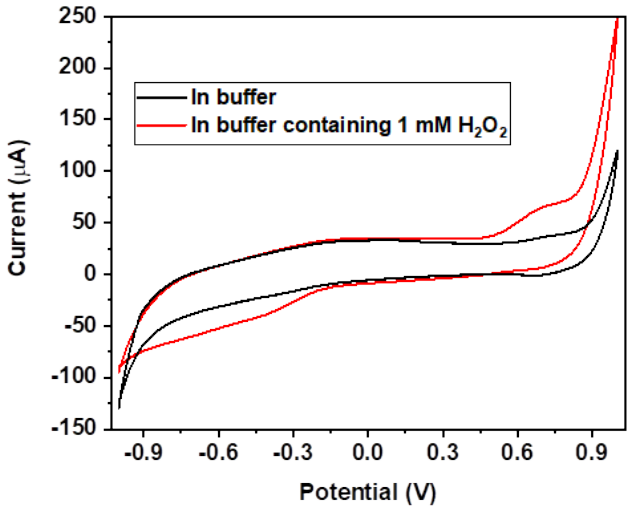

Fig. S3. The CV plot of RuW-gCN modified GCE in 0.1 M PB solution with and without 1 mM H_2O_2.

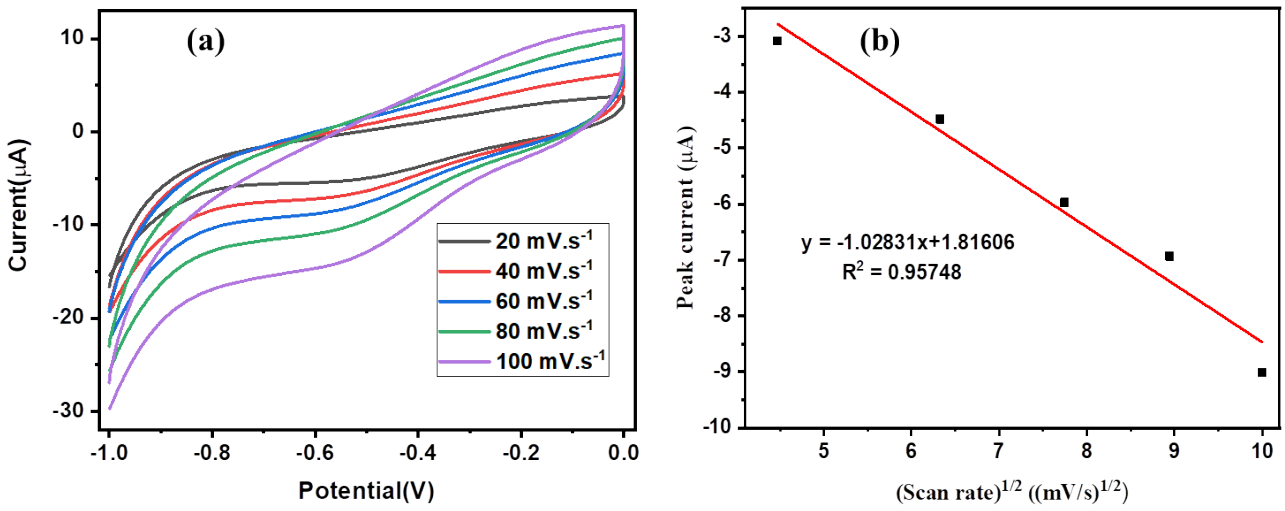

Fig. S4(a). CV plot showing the effect of scan rate on RuW-gCN modified GCE in 0.1 M PB solution at pH 7.4 containing 1 mM H_2O_2. (b) the plot between peak current vs square root of scan rate (Cottrell plot).

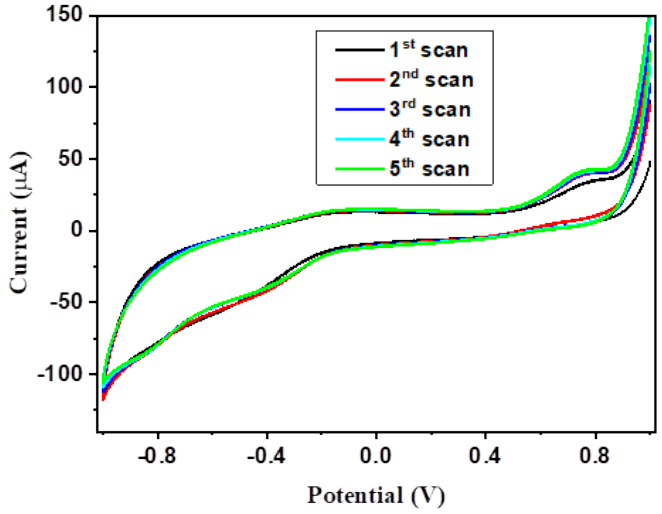

Fig S5. The CV of continuous 5 scans of the same RuW-gCN modified GCE in 0.1 M PB solution containing 10 mM of H_2O_2.

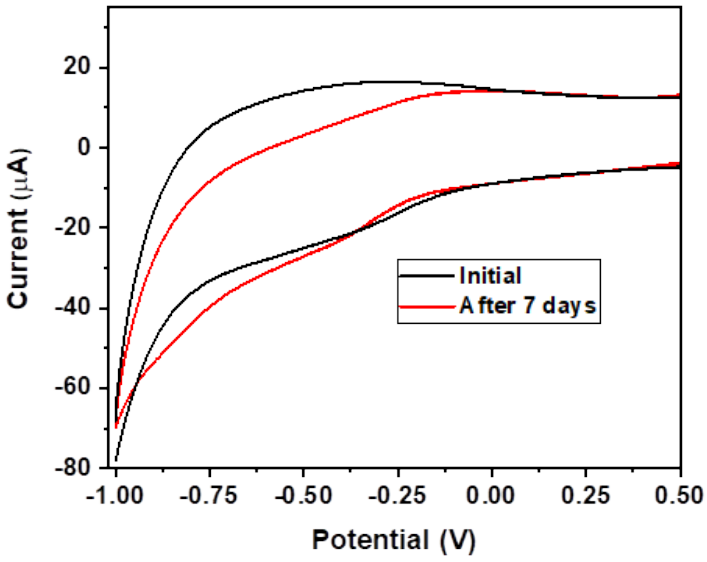

Fig S6. The CV of the RuW-gCN modified GCE after 7 days of storage at room temperature in comparison with initial sensor response. The CV was performed in 0.1 M PB solution containing 1 mM of H_2O_2.

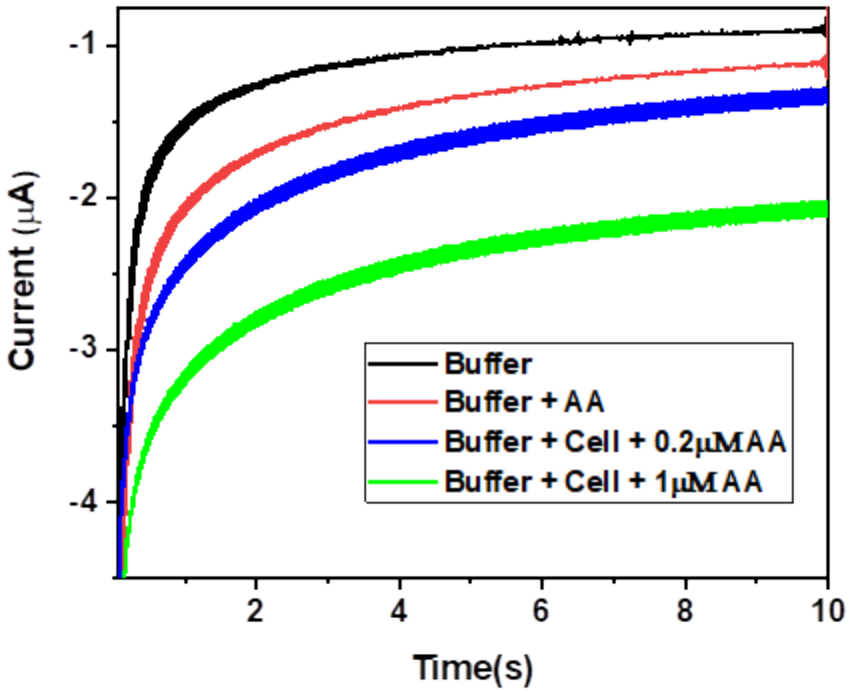

Fig S7. Chronoamperometric response of RuW-gCN modified GCE upon addition of ascorbic acid to the PB solution containing cells. The current value at -0.4 was increased by adding ascorbic acid to the PB solution containing cell suspension.