

Supplementary Material

In-Situ Synthesis of UIO-66-NH₂@Ti₃C₂ Composite for Advanced Electrochemical Detection of Acetaminophen

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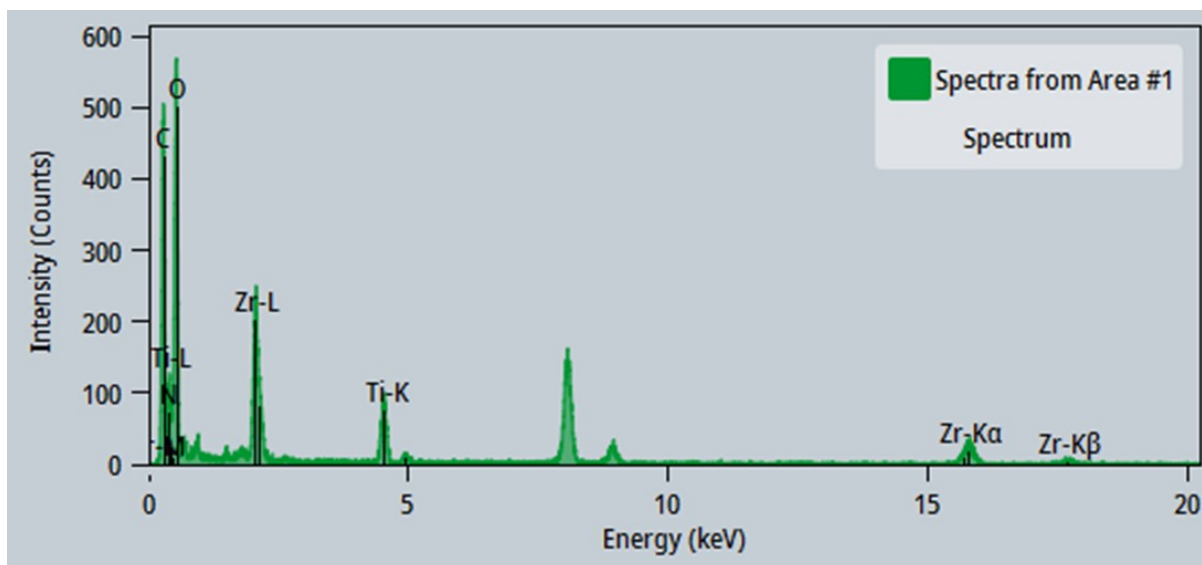


Fig. S1. (A) EDX spectrum of UN@Ti₃C₂-C

Table S1. Elemental relative atomic concentration

Elements	Atomic Fraction (%)
Carbon (C)	52.00
Nitrogen (N)	6.15
Oxygen (O)	33.15
Titanium (Ti)	3.38
Zirconium (Zr)	5.32

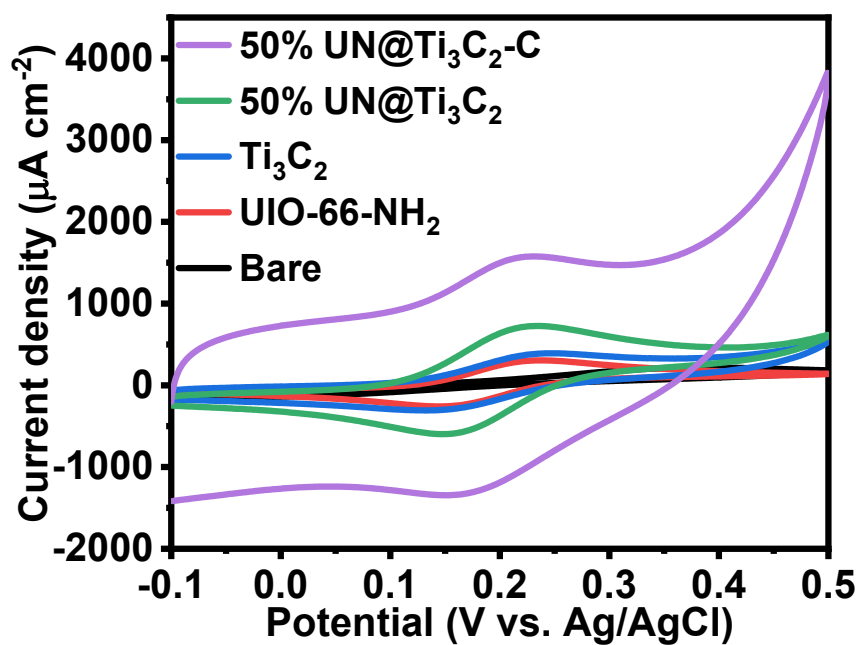


Fig. S2. Various fabricated electrodes CV records at -0.1-0.5 V potential range with 0.1 V/s scan rate in the 1 mM redox probe of $[\text{Fe}(\text{CN})_6]^{3-/4-}$ with KCl of 0.1 M.

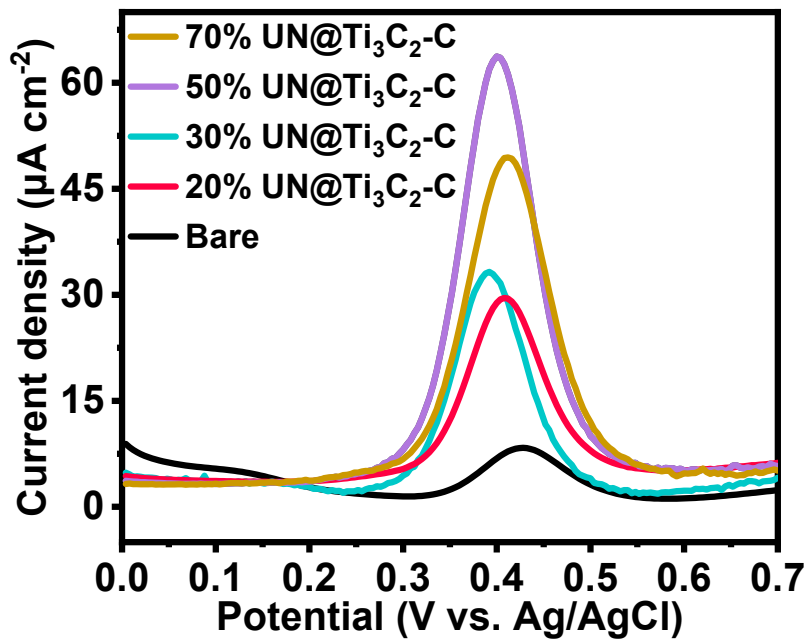


Fig. S3. DPV curves for varying Ti₃C₂ contents in the UIO-66-NH₂ composite, recorded in 0.1 M PBS with 48 µM AP.

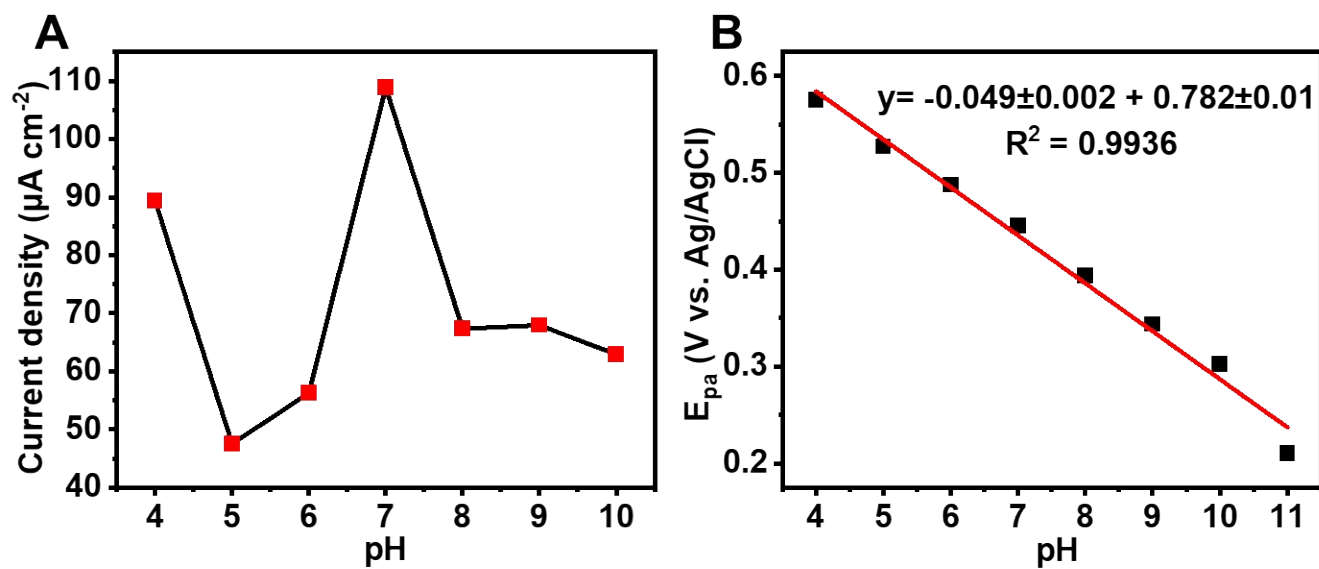


Fig. S4. (A) Corresponding change in the intensity of current with the change in pH value (0.1 M PBS, scan rate: 0.1 V/s), (B) Linear calibration plot between pH and E_{pa} having 48µM AP.

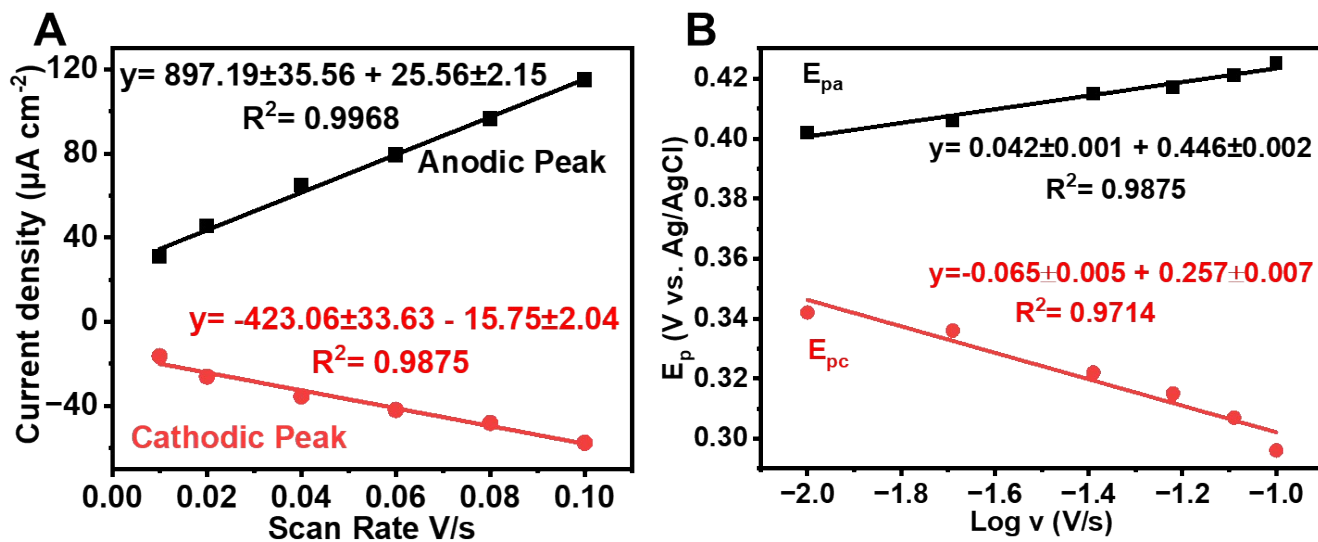


Fig. S5. (A) The plots of the anodic and cathodic peak current vs. the square root of the scan rate. (B) Linear fitting of the peak potential vs. log v/s .

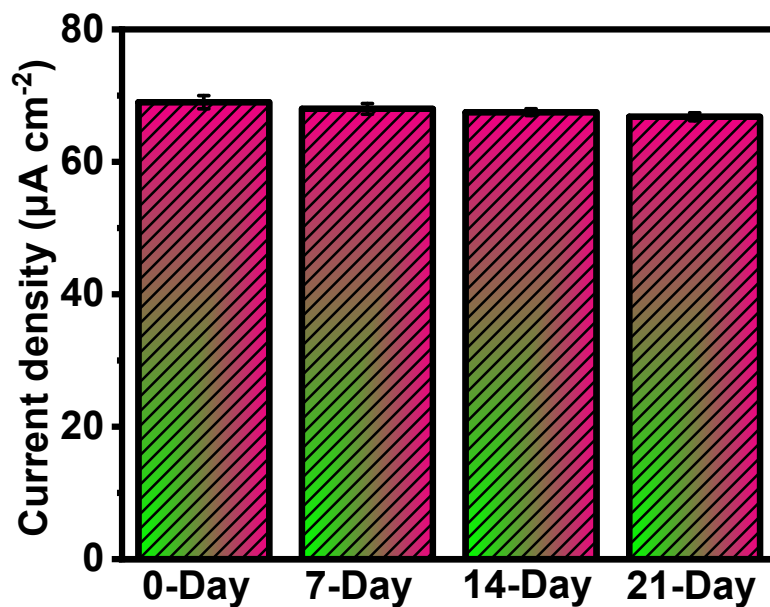


Fig. S6. The long-term stability of 50% UN@Ti₃C₂-C