

Supporting information

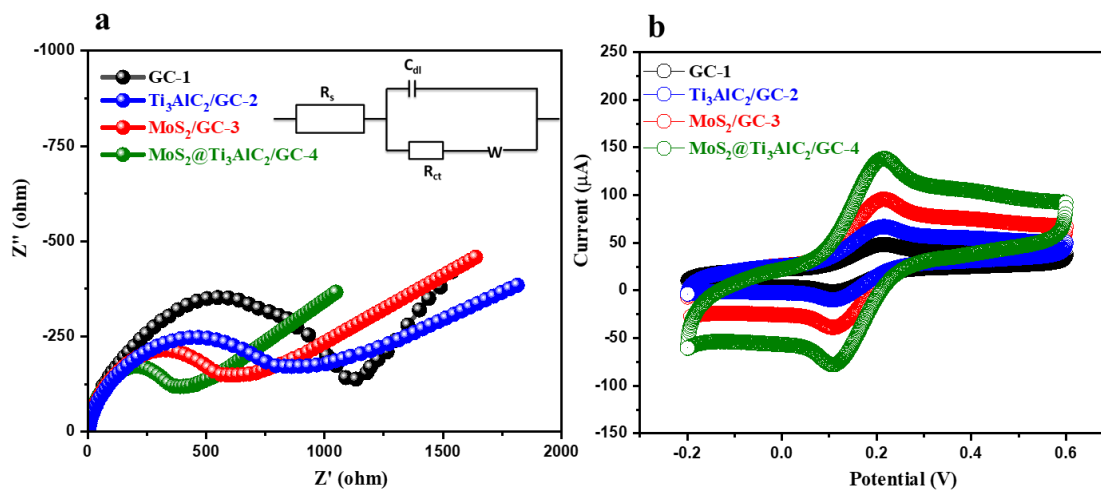


Figure S1. Nyquist plots (a) and CVs (b) of the GC-1, $\text{Ti}_3\text{AlC}_2/\text{GC-2}$, $\text{MoS}_2/\text{GC-3}$ and $\text{MoS}_2@\text{Ti}_3\text{AlC}_2/\text{GC-4}$ in 5 mM $[\text{Fe}(\text{CN})_6]^{3-/4-}$ in 0.1 M KCl solution (Frequency range = 0.1-100 KHz for EIS graph). Scan rate = 50 mV/s (for CV graph).

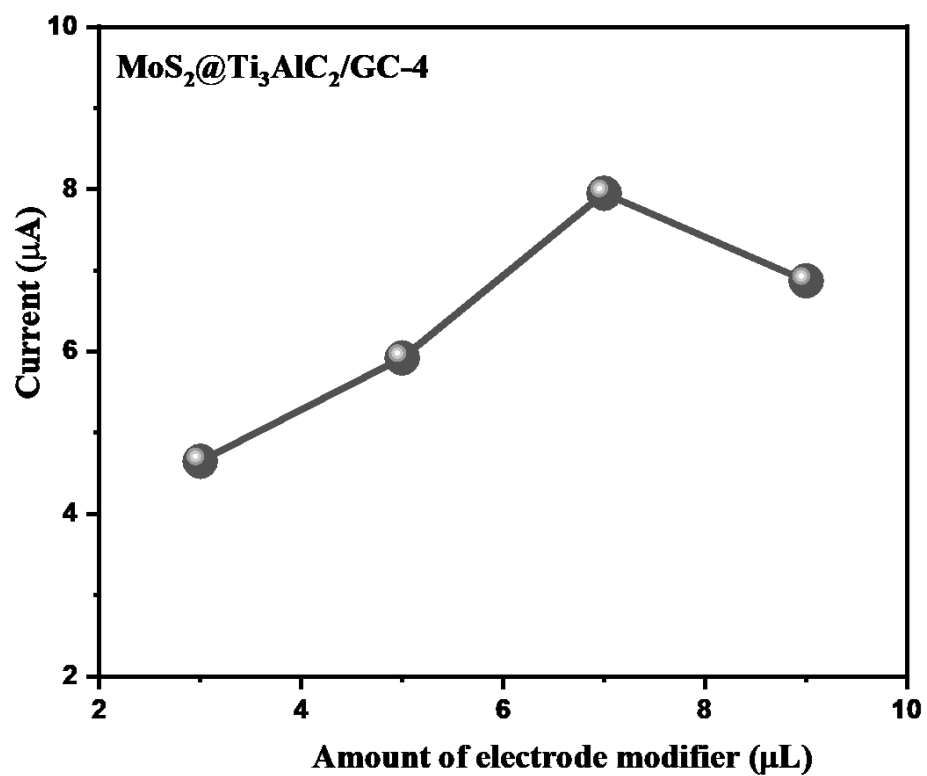


Figure S2. Current response of the MoS₂@Ti₃AlC₂/GC-4 (different mass loading; 3, 5, 7 and 9 μL) in 15 μM AZY in 0.1 M PBS (pH = 7) at scan rate of 50 mV/s.

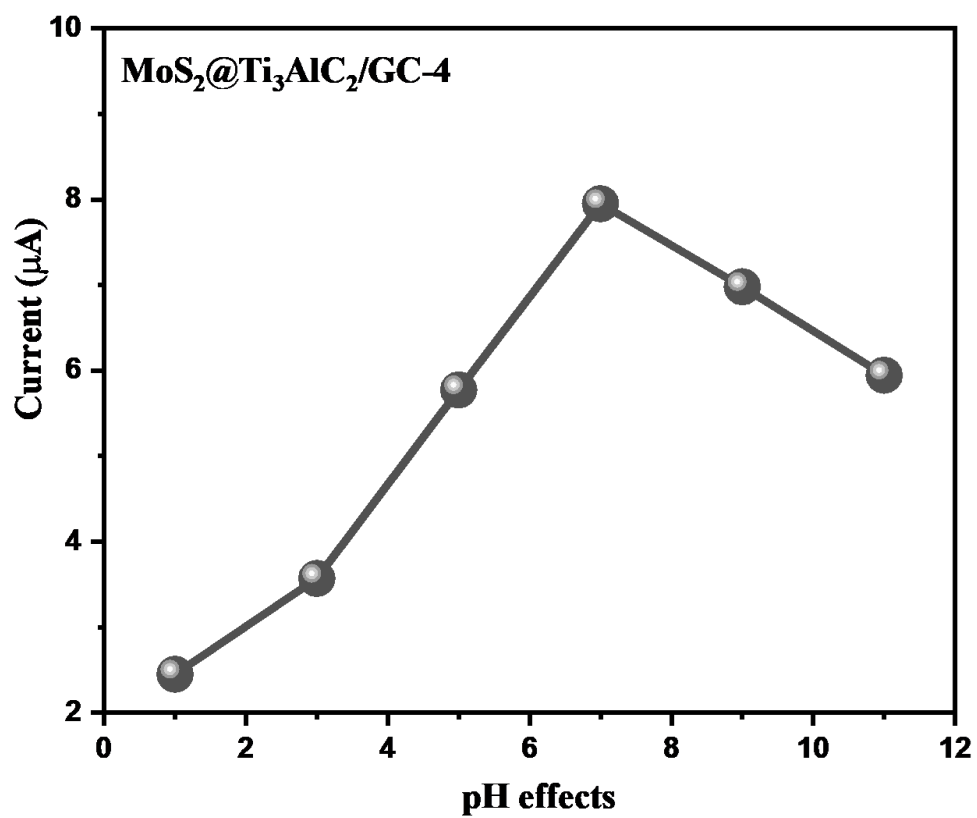


Figure S3. Current response of the $\text{MoS}_2@\text{Ti}_3\text{AlC}_2/\text{GC-4}$ (in $15\ \mu\text{M}$ AZY in $0.1\ \text{M}$ PBS (different pH; 1, 3, 5, 7, 9 and 11) at scan rate of $50\ \text{mV/s}$).

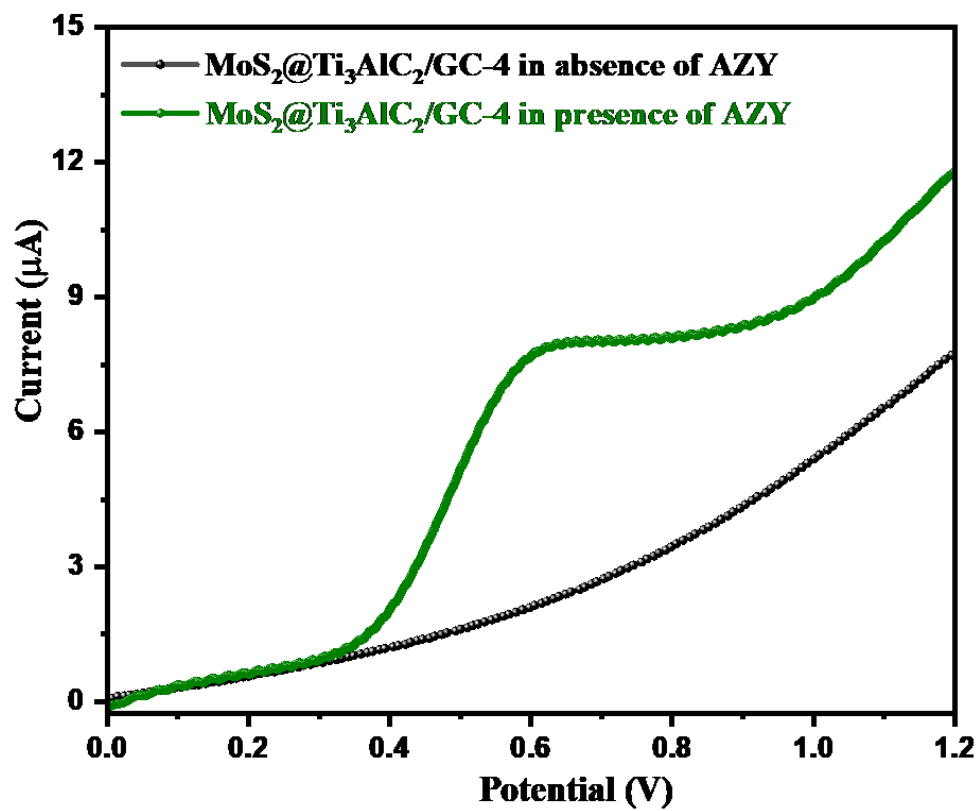


Figure S4. LSVs of the MoS₂@Ti₃AlC₂/GC-4 in absence and presence of 16 μM AZY in 0.1 M PBS (pH = 7) at scan rate of 50 mV/s.

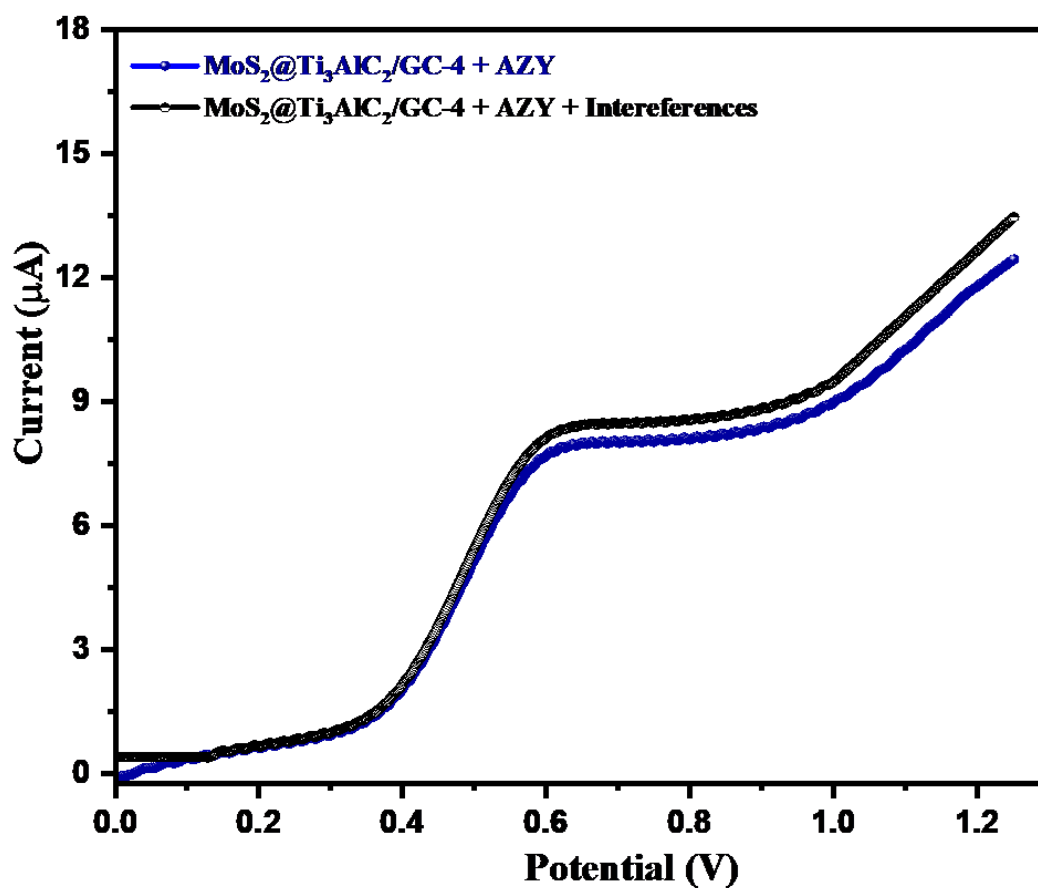


Figure S5. Selectivity: LSV response of the MoS₂@Ti₃AlC₂/GC-4 in 16 μM AZY and 16 μM AZY + 80 μM interferences (glucose, fructose, flutamide, dopamine, hydrazine, potassium, uric acid, ascorbic acid, and nitrophenol) in 0.1 M PBS (pH = 7.0) at scan rates of 50 mV/s.