

Supplementary Information

Ingenious fabrication of metal–organic framework/graphene oxide composites as aptasensors with superior electrochemical recognition capability

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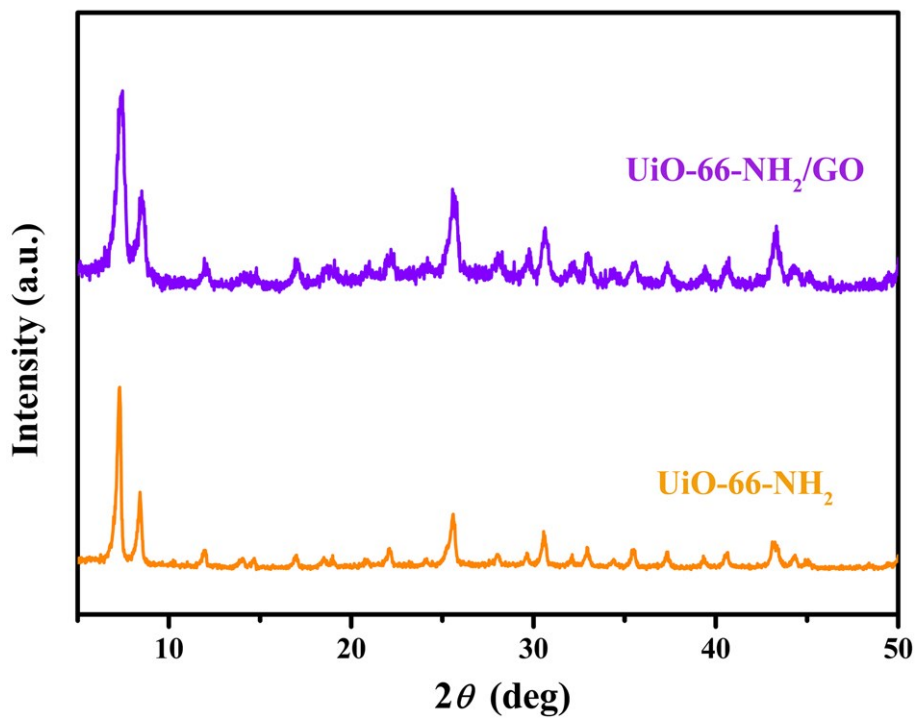


Figure S1. PXRD patterns of UiO-66-NH₂ and UiO-66-NH₂/GO.

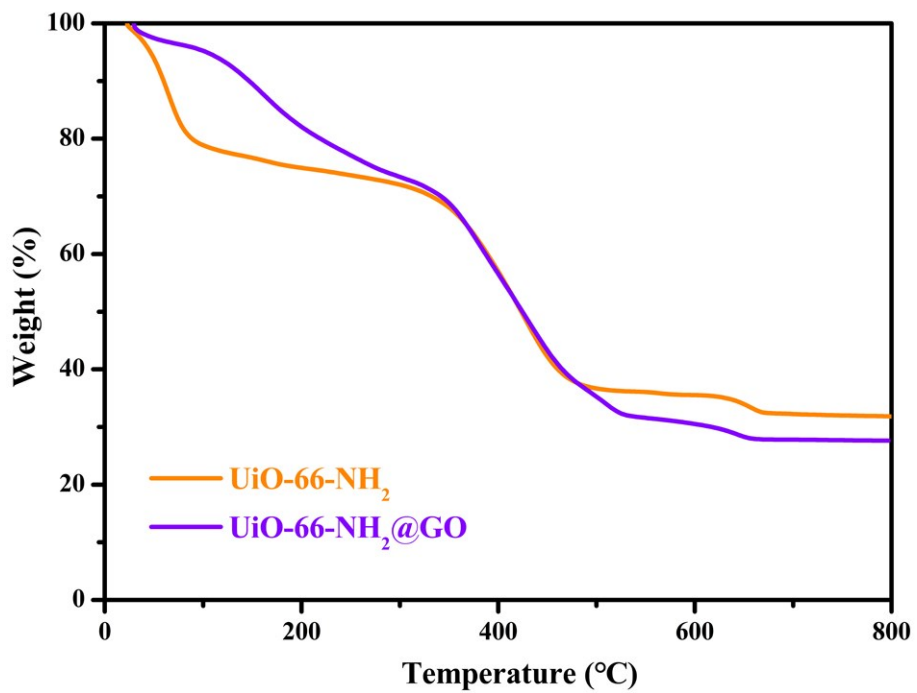


Figure S2. TGA curves of UiO-66-NH₂ and UiO-66-NH₂/GO.

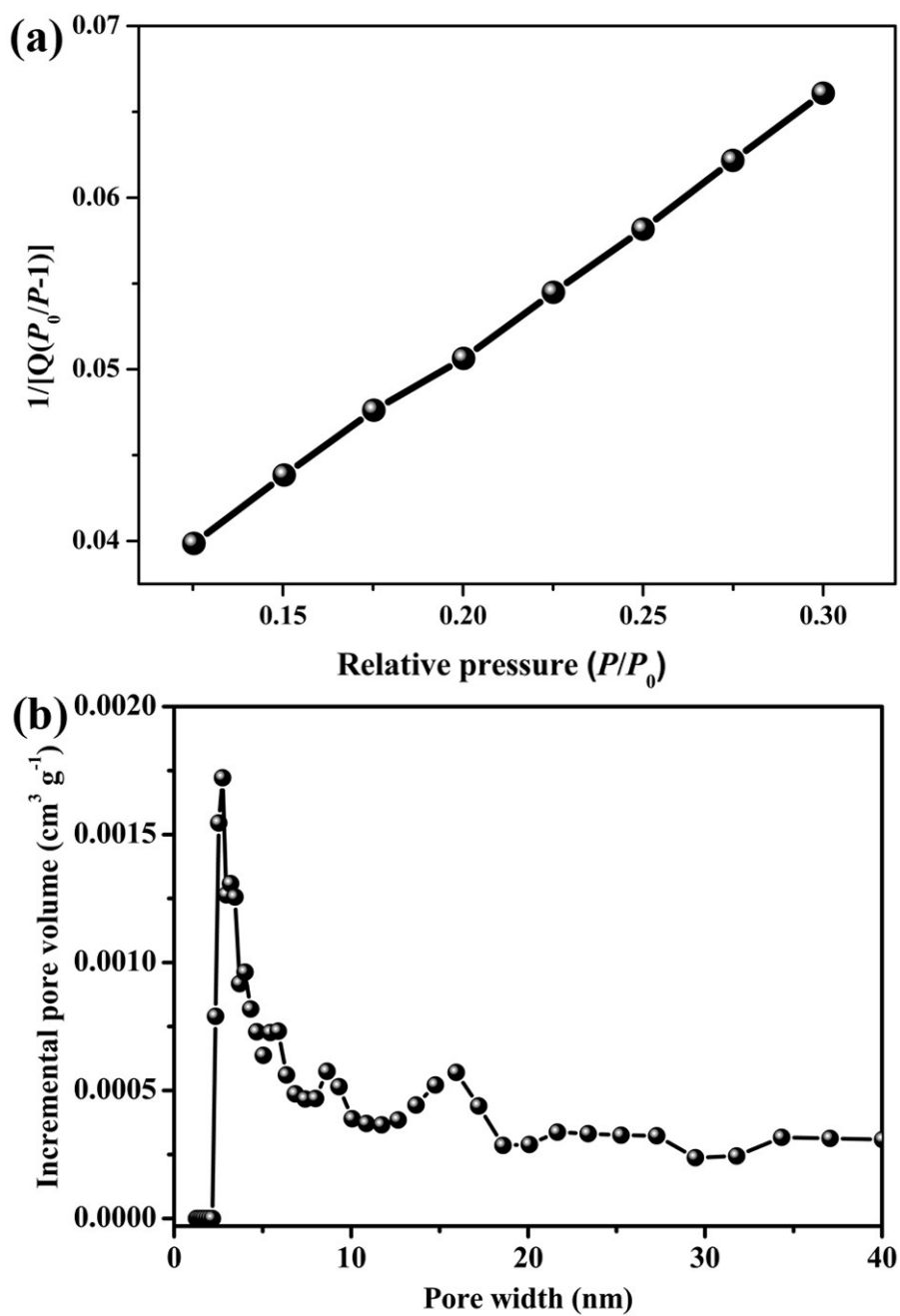


Figure S3. BET surface area plots and pore size distribution of GO.

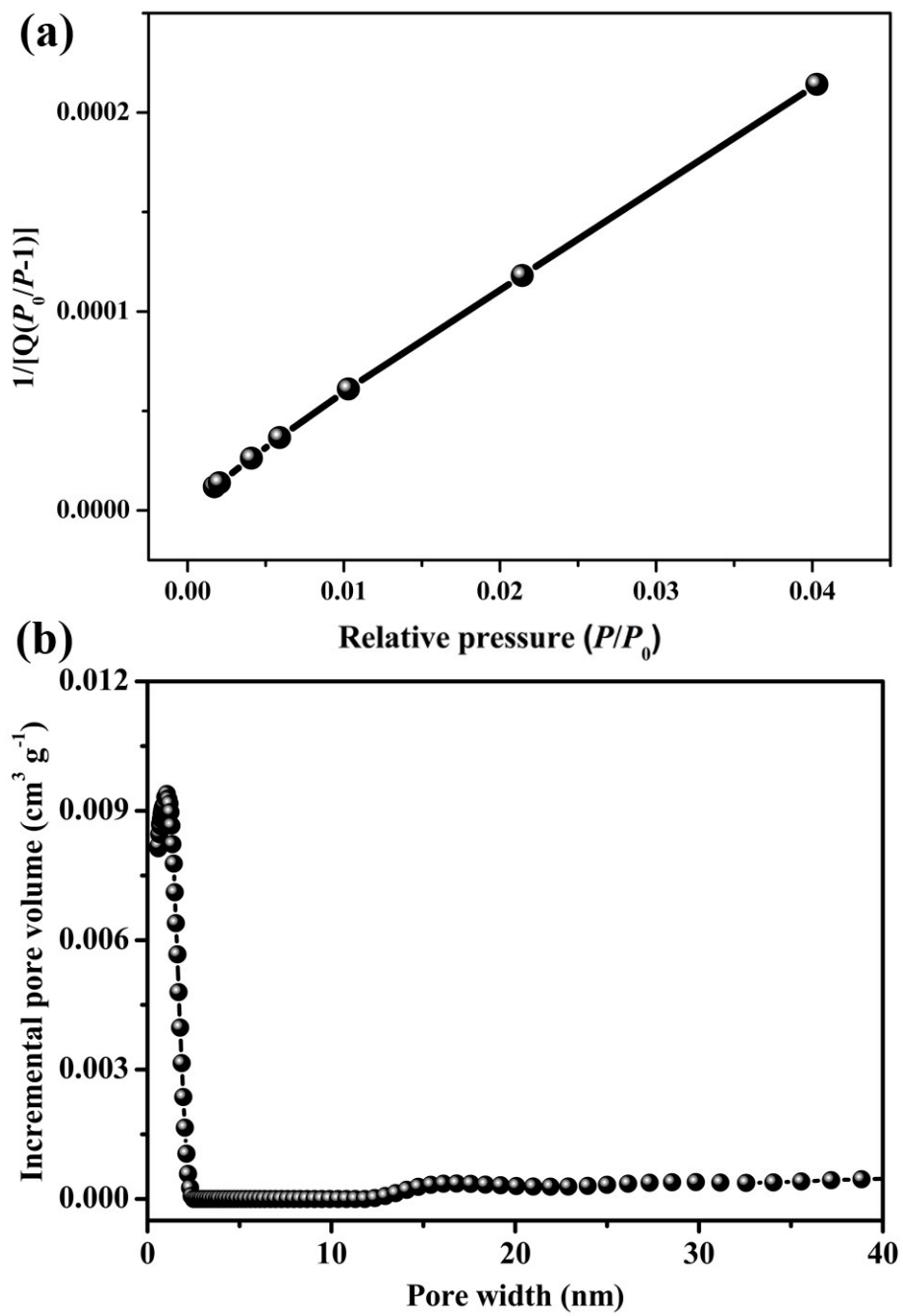


Figure S4. BET surface area plots and pore size distribution of UiO-66-NH₂.

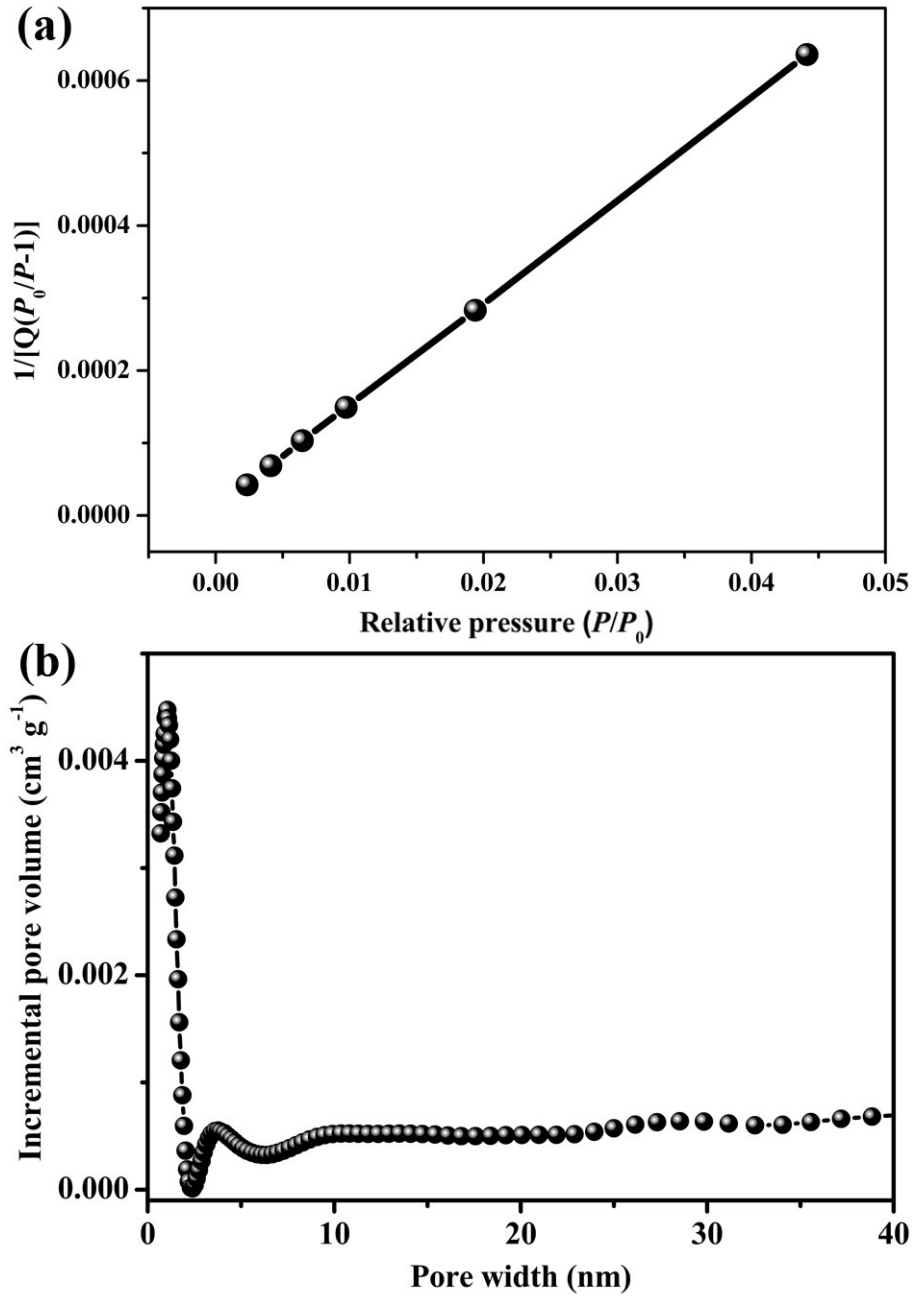


Figure S5. BET surface area plots and pore size distribution of UiO-66-NH₂/GO.

Table S1 BET surface area reports of GO, UiO-66-NH₂, and UiO-66-NH₂/GO.

Material	BET ($\text{m}^2 \text{g}^{-1}$)	Slope (g cm^{-3})	Y-Intercept (g cm^{-3})	C	Qm ($\text{cm}^3 \text{g}^{-1}$)	Correlation Coefficient
GO	25.6593 ± 0.2694	0.148309 ± 0.001739	0.021320 ± 0.000383	7.956219	5.8952	0.9995878
UiO-66-NH ₂	831.6632 ± 8.2183	0.005229 ± 0.000052	0.000005 ± 0.000001	1076.771264	191.0737	0.9997556
UiO-66-NH ₂ /GO	307.0955 ± 0.8324	0.014163 ± 0.000038	0.000010 ± 0.000001	1371.065264	70.5548	0.9999853

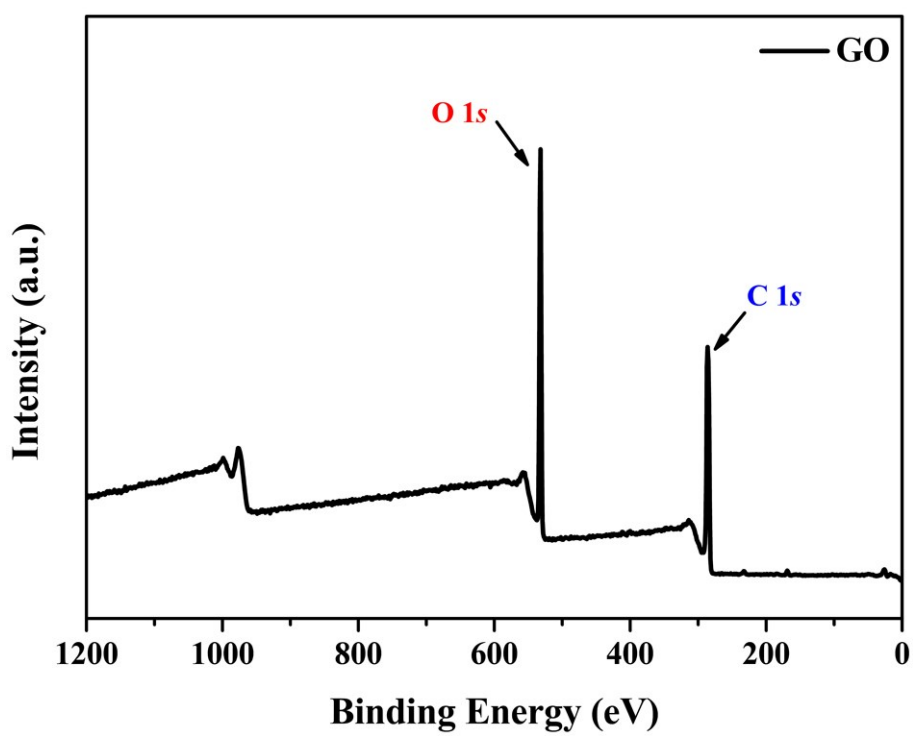


Figure S6. The full XPS survey scan spectrum of GO.

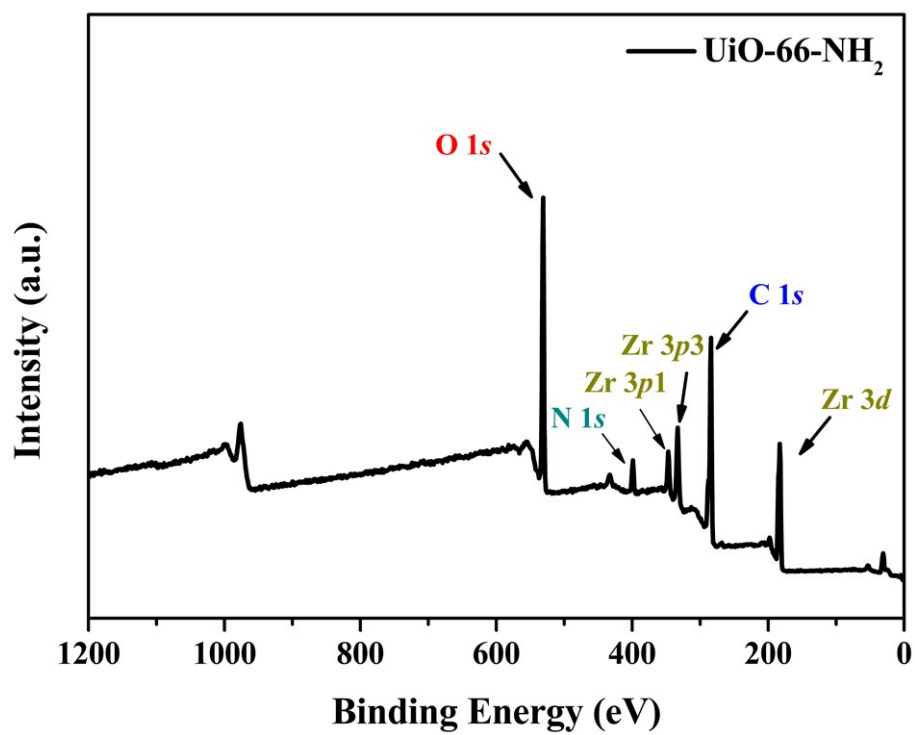


Figure S7. The full XPS survey scan spectrum of UiO-66-NH₂.

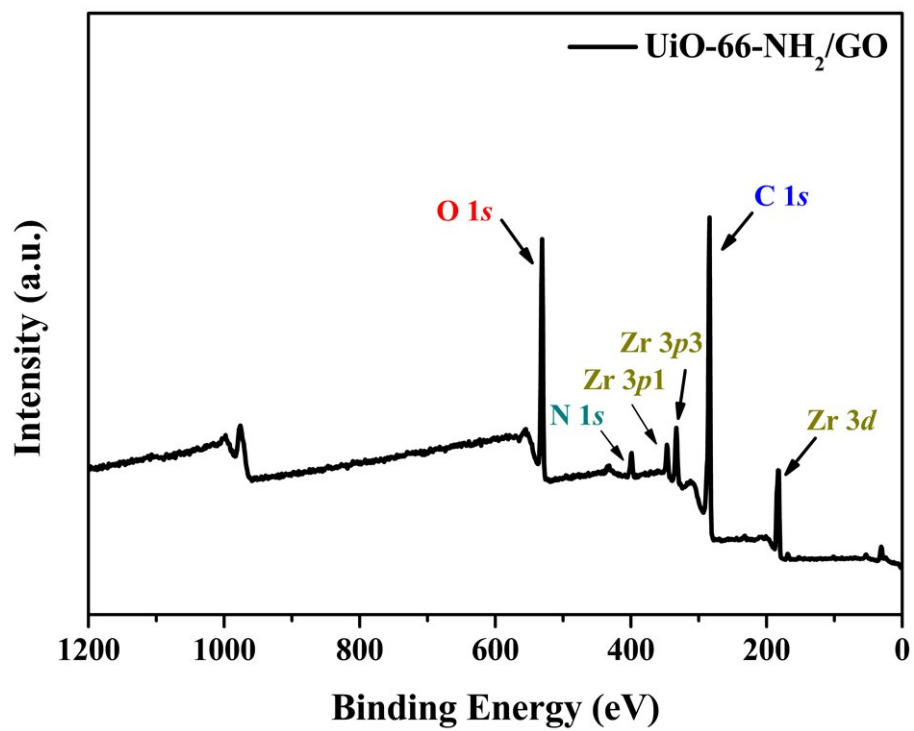


Figure S8. The full XPS survey scan spectrum of UiO-66-NH₂/GO.

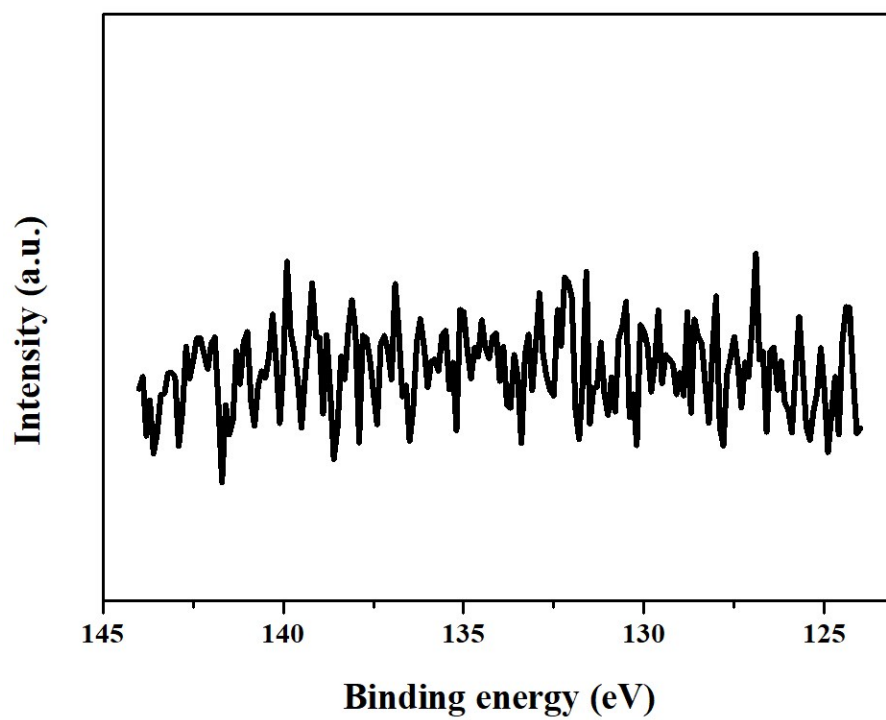


Figure S9. The high-resolution XPS spectrum of P 2*p* in UiO-66-NH₂/GO.

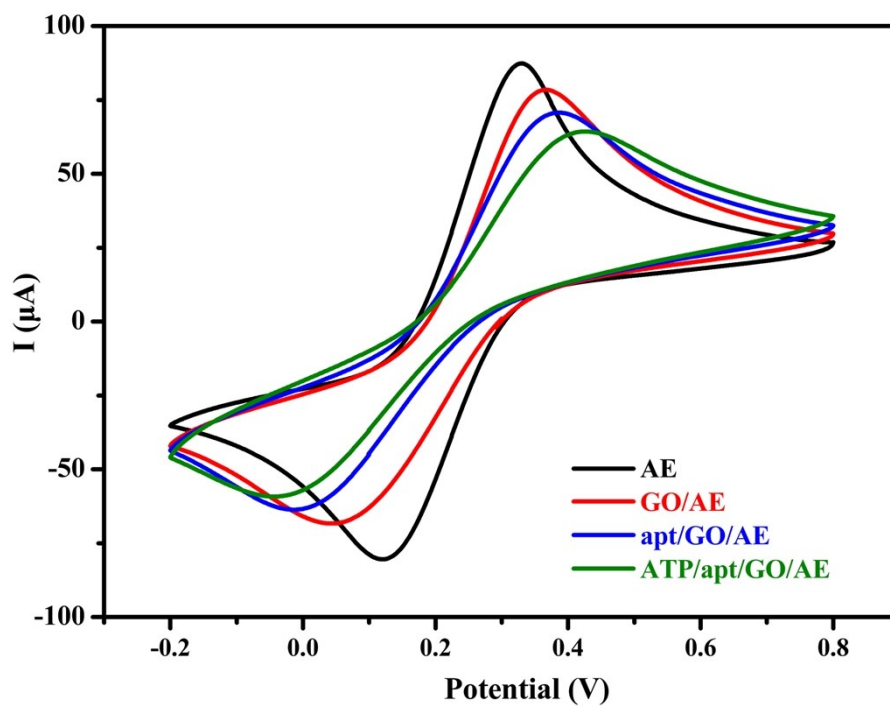


Figure S10. CV curves of different modified electrodes for the GO-based aptasensor.

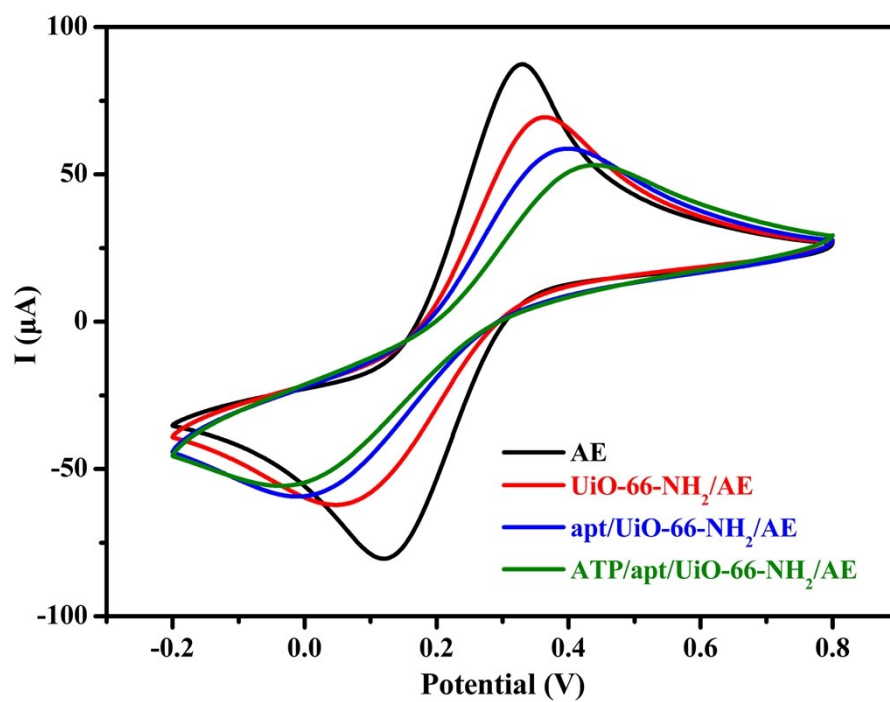


Figure S11. CV curves of different modified electrodes for the UiO-66-NH₂-based aptasensor.

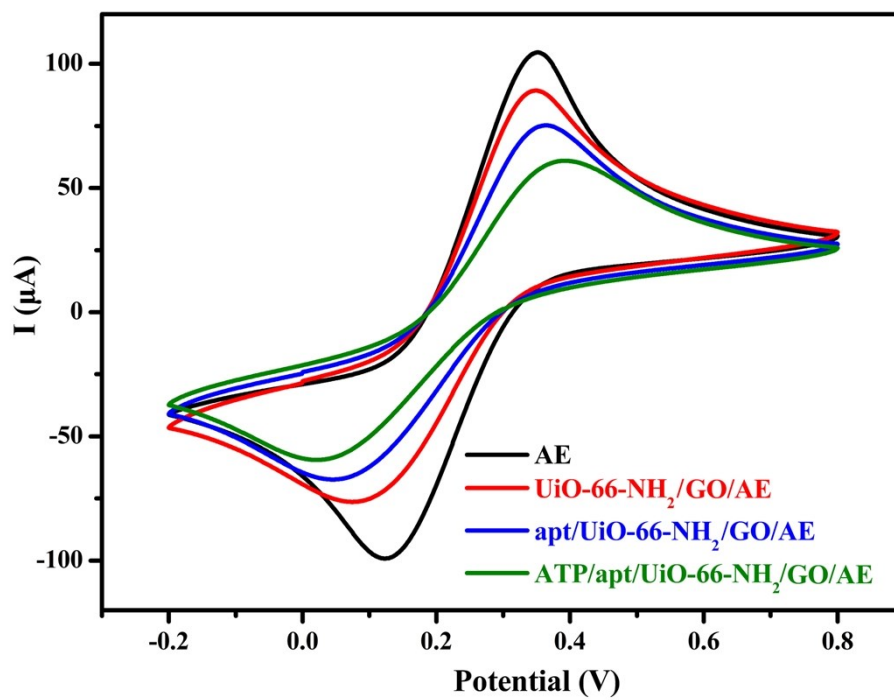


Figure S12. CV curves of different modified electrodes for the UiO-66-NH₂/GO-based aptasensor.

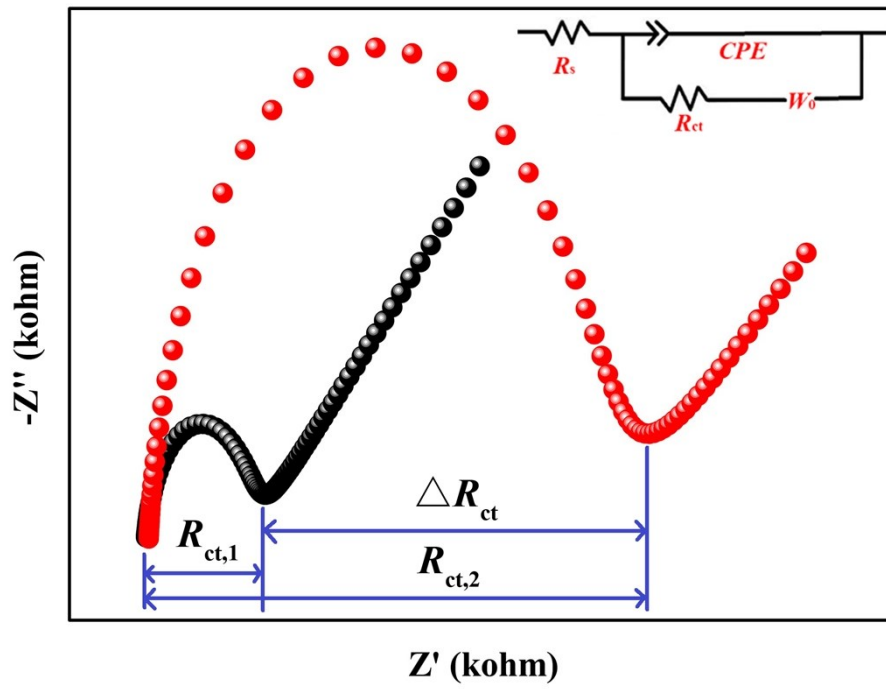


Figure S13. EIS Nyquist plots and equivalent circuit.