Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supplementary Information

Ingenious construction of an electrochemical aptasensor based on an Au@COF/GO-NH_2 composite with excellent detection performance

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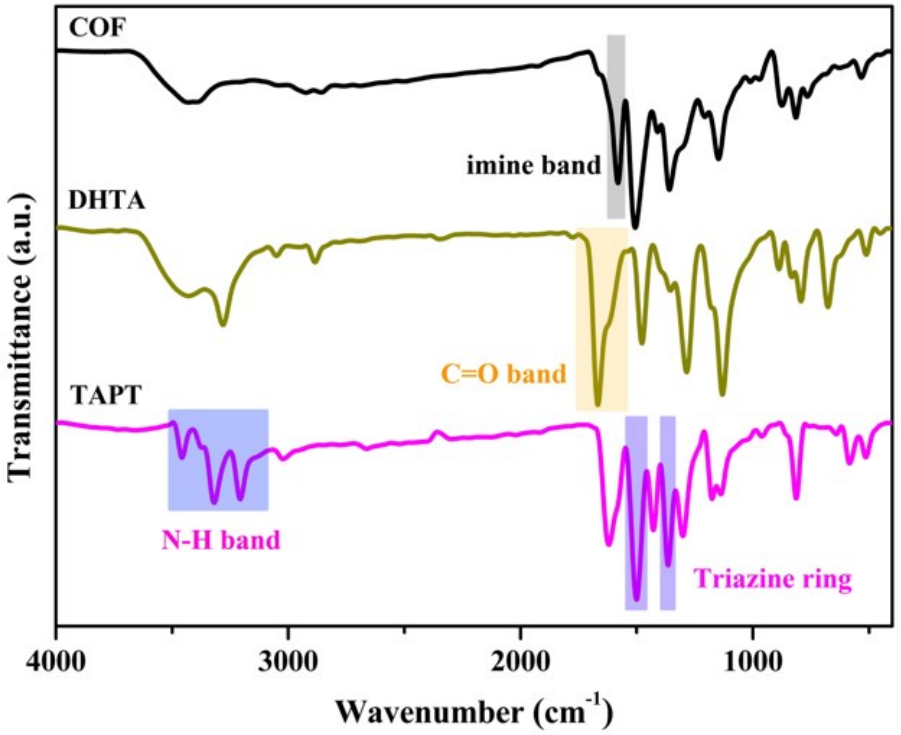

Figure S1. The FT-IR spectra of TAPT, DHTA and COF.

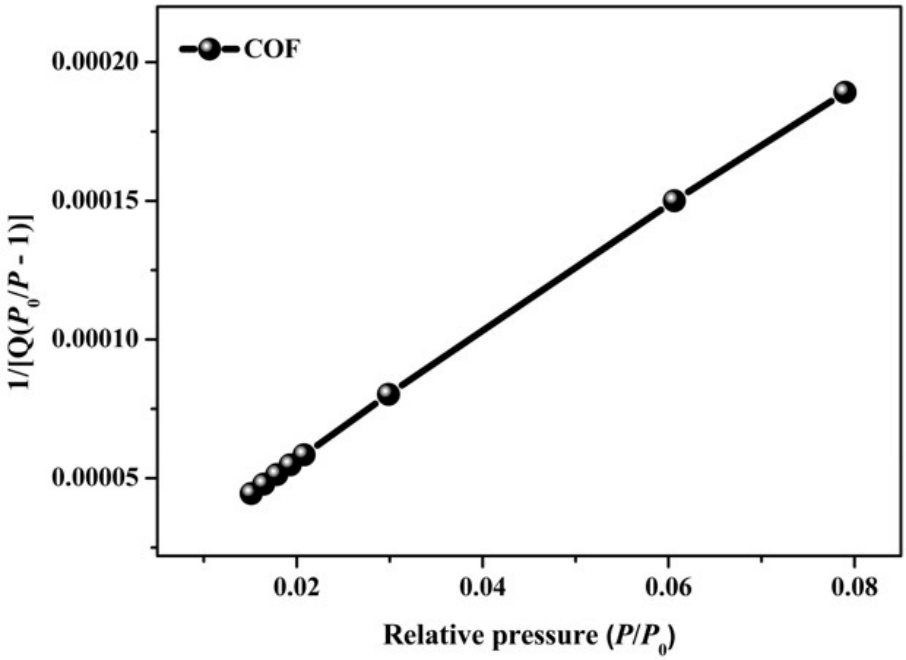

Figure S2. The BET surface area plots of COF.

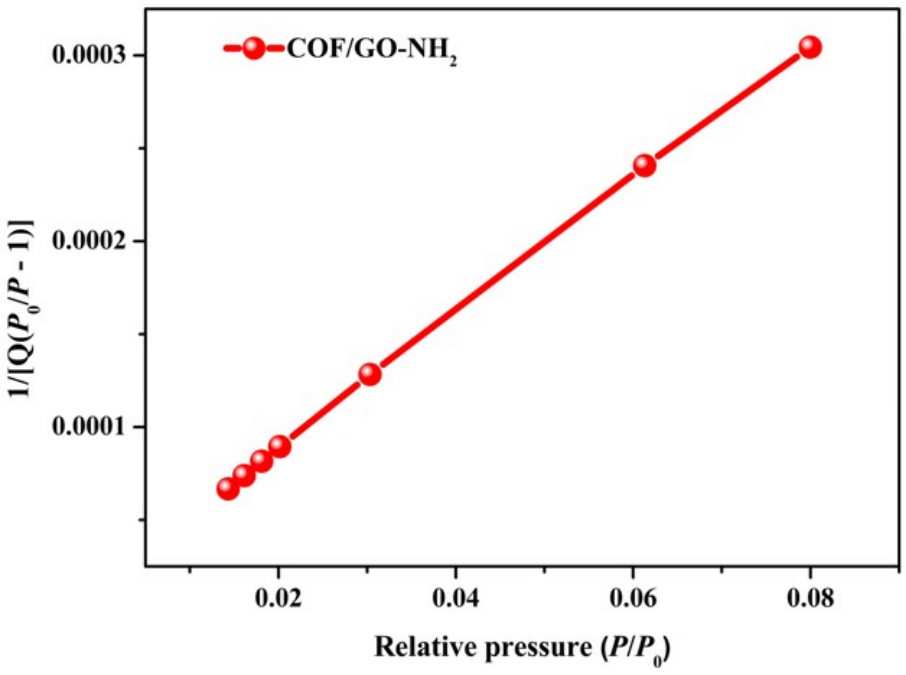

Figure S3. The BET surface area plots of COF/GO-NH_2.

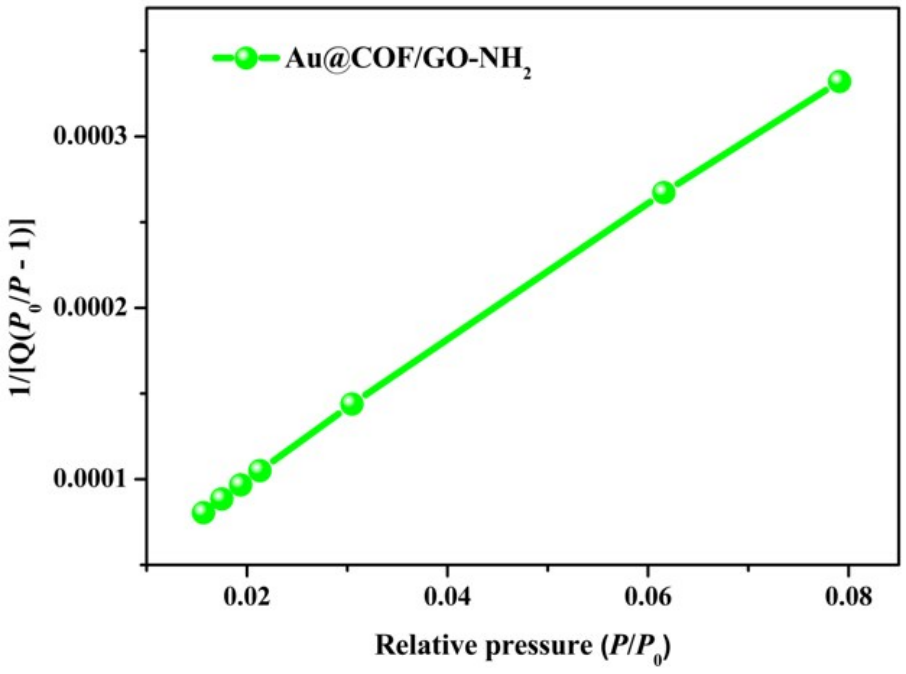

Figure S4. The BET surface area plots of Au@COF/GO-NH_2.

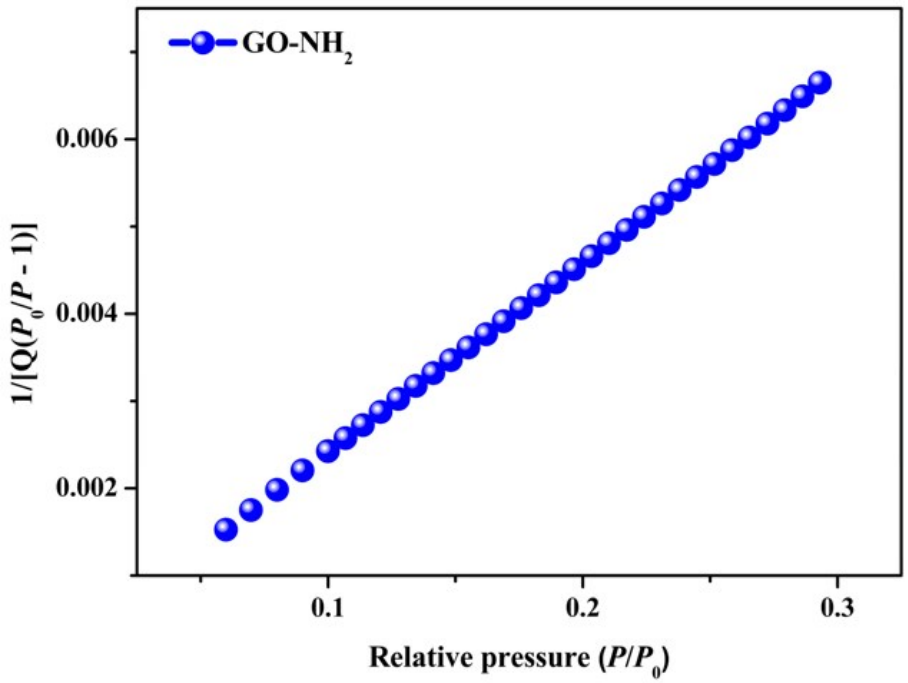

Figure S5. The BET surface area plots of GO-NH_2.

Table S1 BET surface area reports of COF, COF/GO-NH_2, Au@COF/GO-NH_2 and GO-NH_2.

Material	BET (m^2 g^{-1})	Slope (g cm^{-3})	Y-Intercept (g cm^{-3})	C	Qm (cm^3 g^{-1})	Correlation Coefficient
COF	1907.6188 ± 13.5801	0.002271 ± 0.000016	0.000011 ± 0.000001	206.537959	438.2733	0.9998468
COF/GO-NH_2	1193.8422 ± 8.9494	0.003630 ± 0.000027	0.000016 ± 0.000001	226.091804	274.2839	0.9998585
Au@COF/GO-NH_2	1089.2801 ± 9.7638	0.003976 ± 0.000036	0.000020 ± 0.000002	200.119683	250.2609	0.9997975
GO-NH_2	197.5045 ± 0.2251	0.021802 ± 0.000025	0.000236 ± 0.000005	93.408035	45.3764	0.9999802

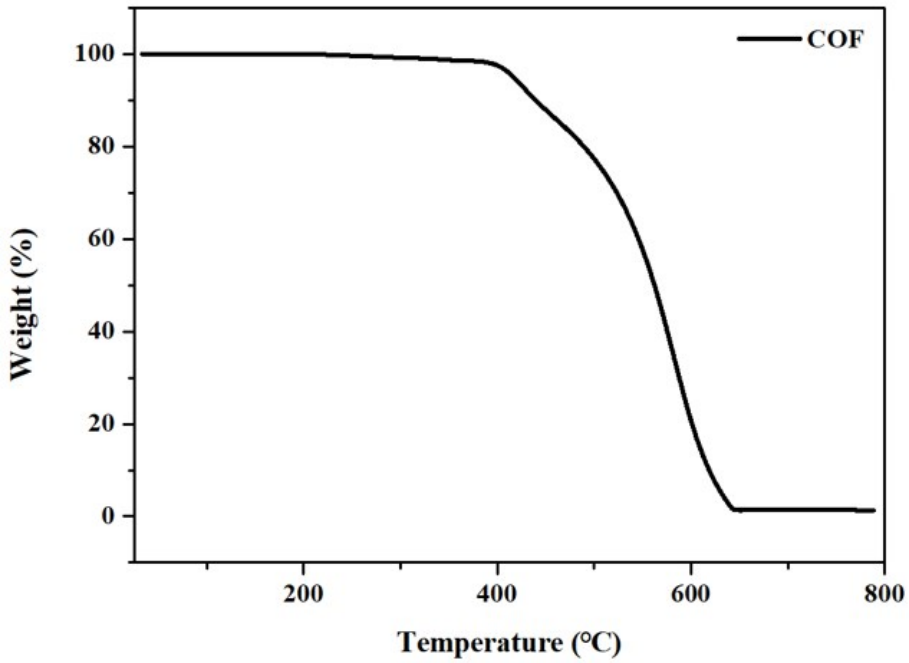

Figure S6. The TGA curve of COF.

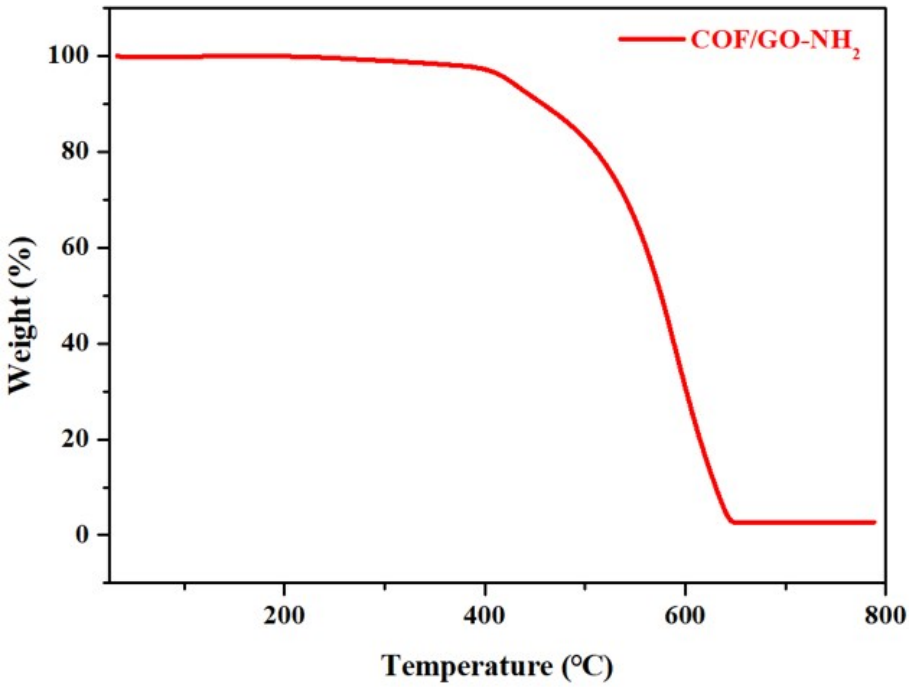

Figure S7. The TGA curve of COF/GO-NH_2.

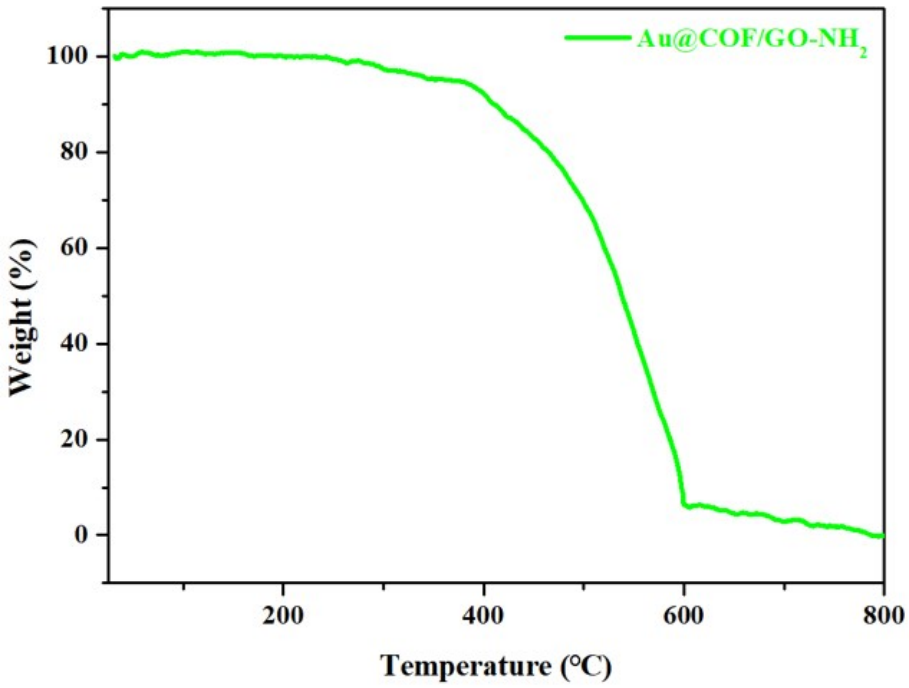

Figure S8. The TGA curve of Au@COF/GO-NH_2.

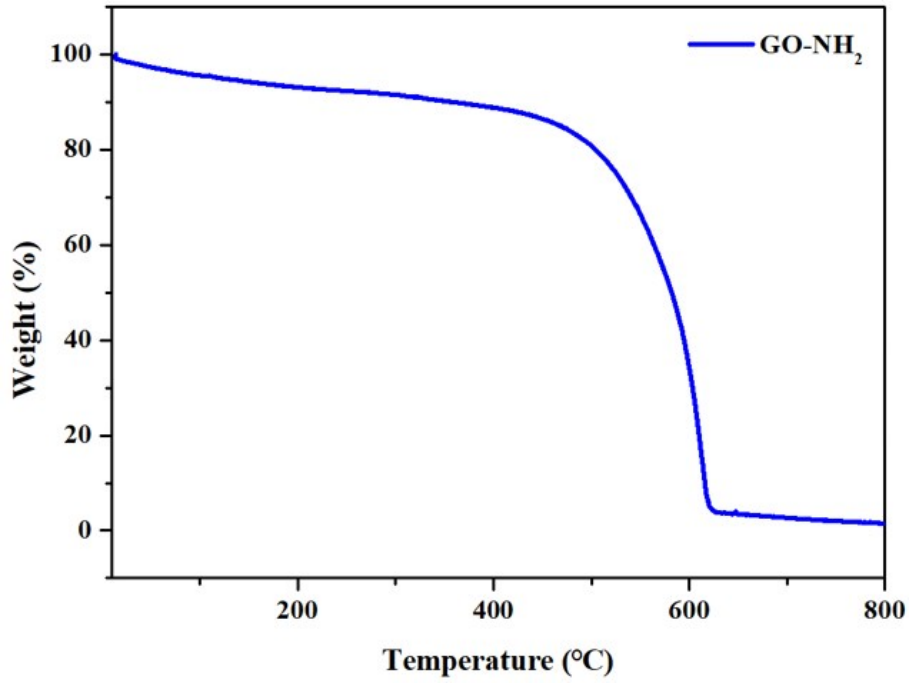

Figure S9. The TGA curve of GO-NH_2.

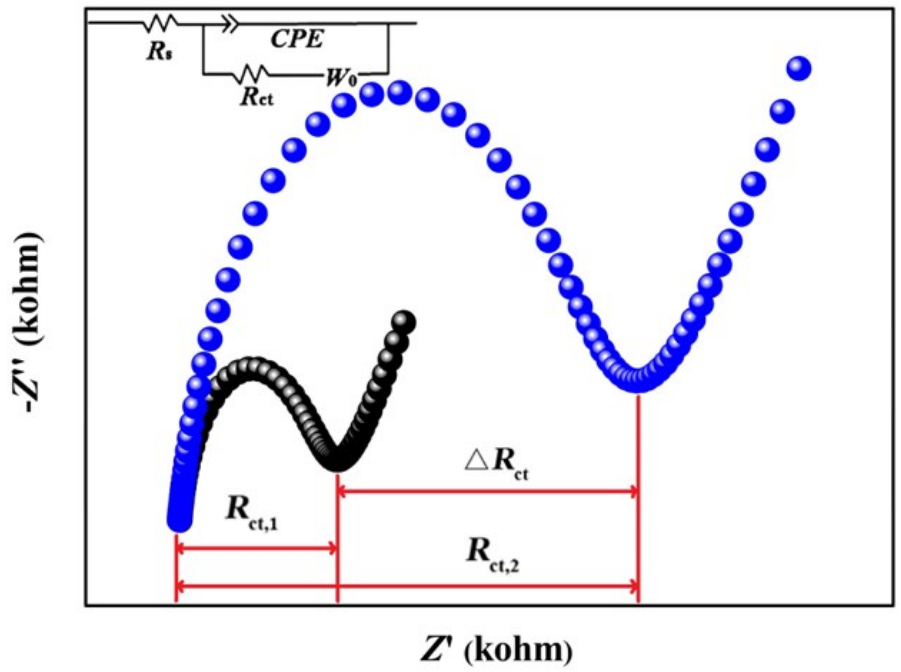

Figure S10. EIS Nyquist plots with the equivalent circuit.

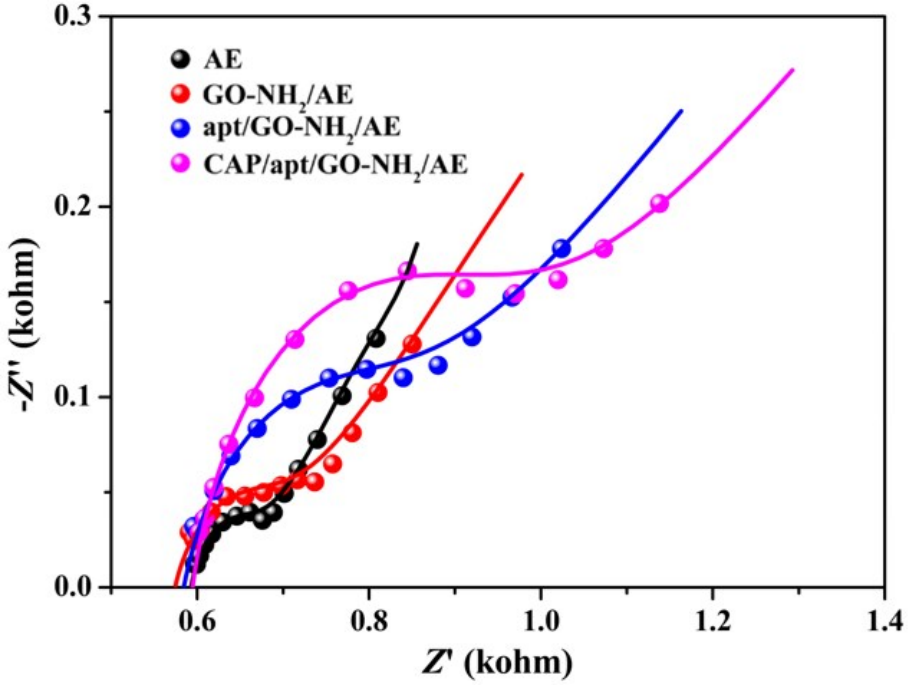

Figure S11. EIS Nyquist plots of the fabricated aptasensor based on GO-NH_2 at each stage.

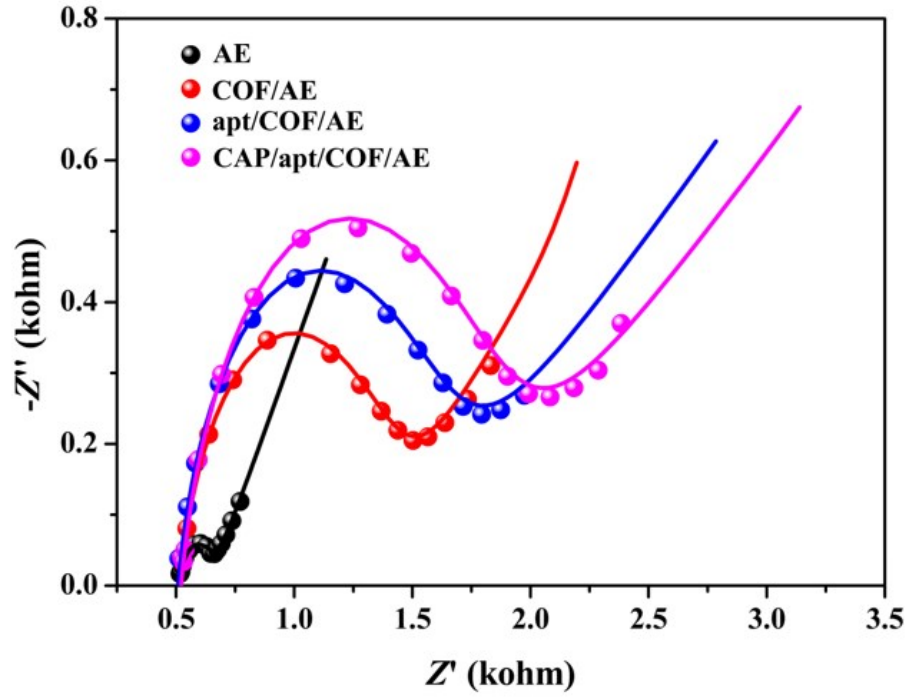

Figure S12. EIS Nyquist plots of the fabricated aptasensor based on COF at each stage.

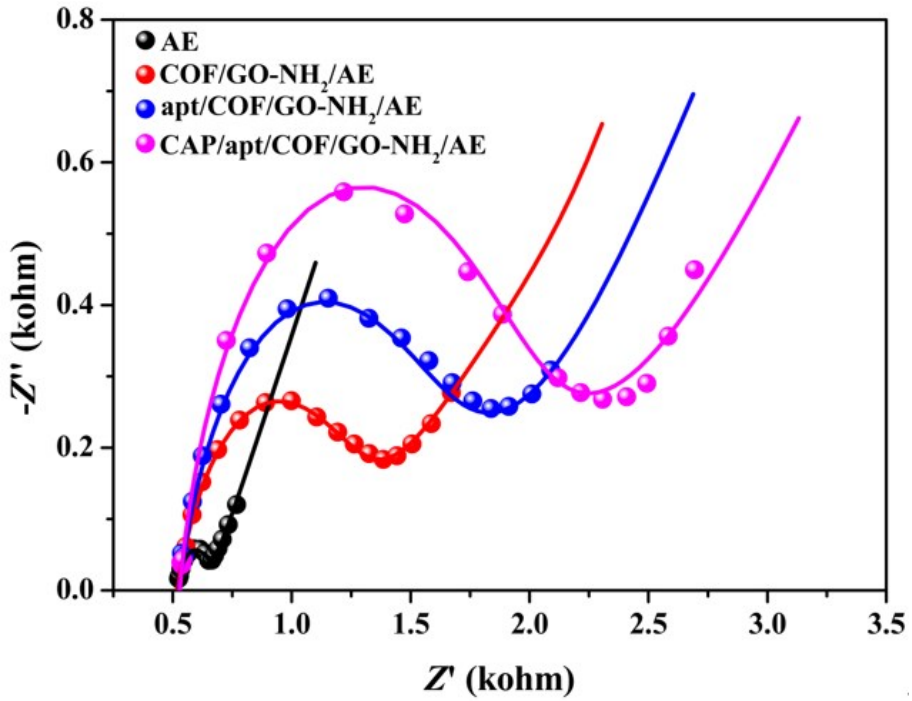

Figure S13. EIS Nyquist plots of the fabricated aptasensor based on COF/GO-NH_2 at each stage.

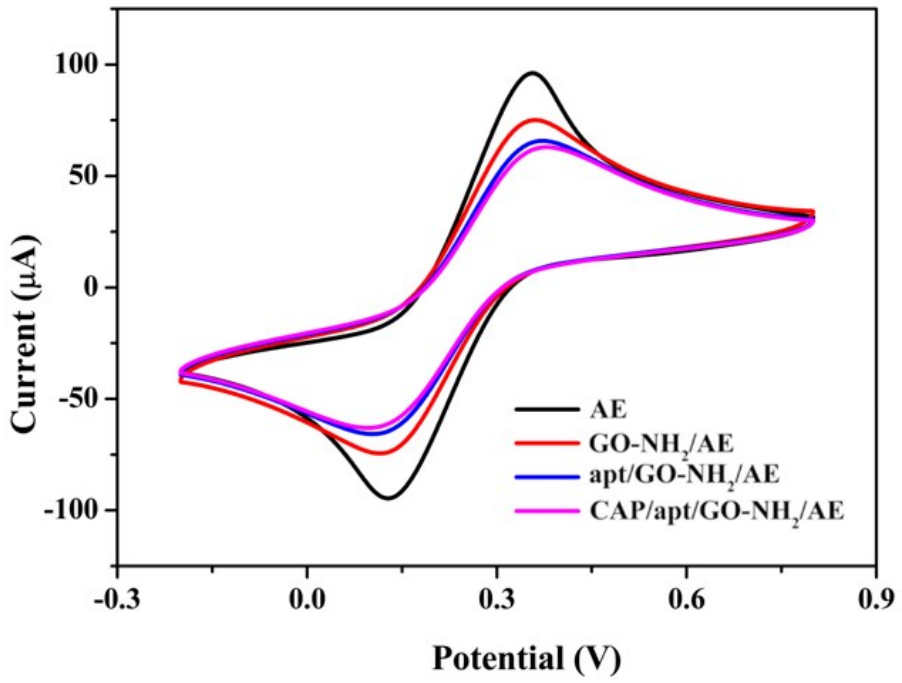

Figure S14. CV curves of the fabricated aptasensor based on GO-NH_2 at each stage.

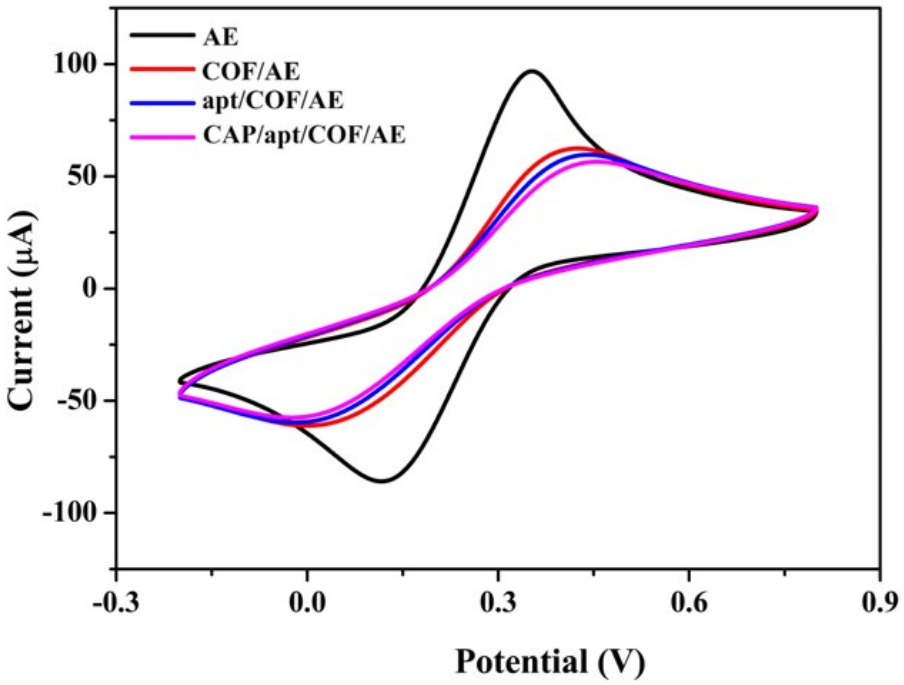

Figure S15. CV curves of the fabricated aptasensor based on COF at each stage.

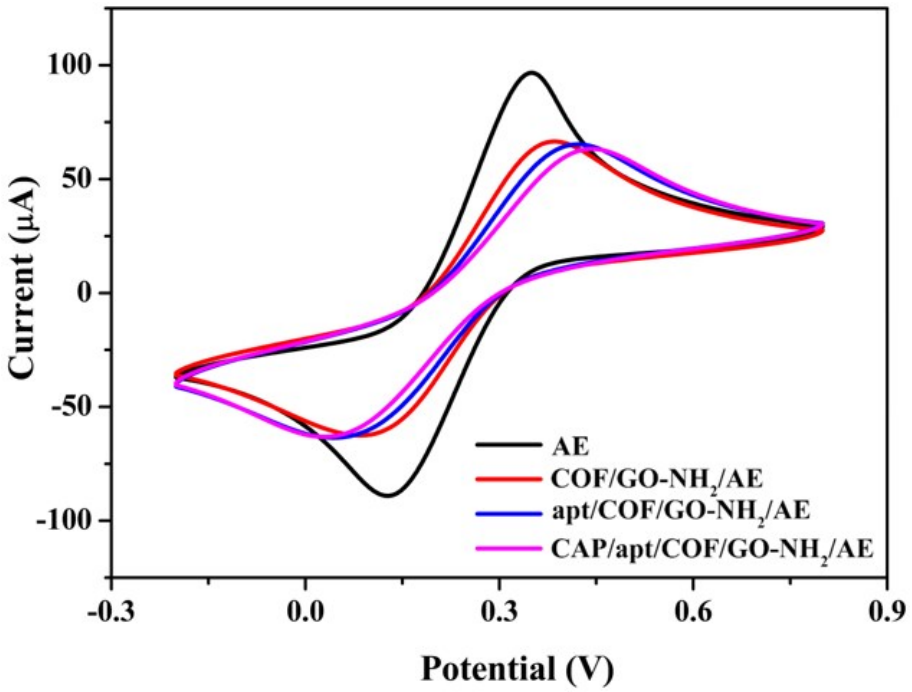

Figure S16. CV curves of the fabricated aptasensor based on COF/GO-NH_2 at each stage.

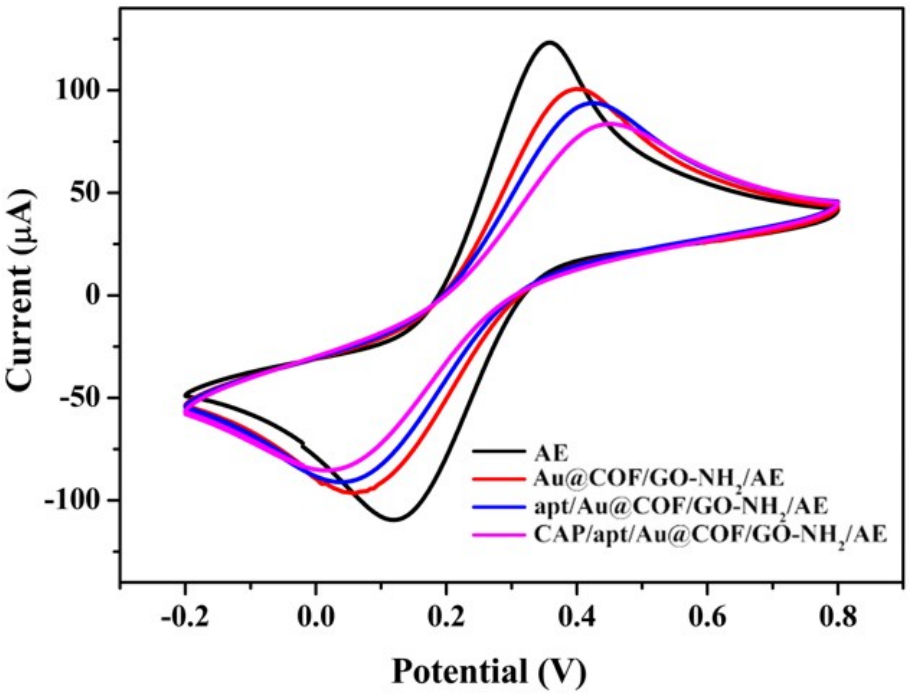

Figure S17. CV curves of the fabricated aptasensor based on Au@COF/GO-NH_2 at each stage.