

Supplementary materials

Molecularly imprinted poly 2-aminophenol-gold nanoparticles-reduced graphene oxide composite for electrochemical determination of flutamide in environmental and biological samples

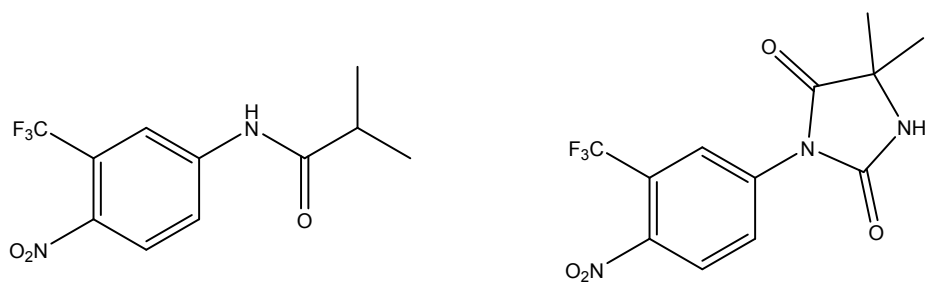
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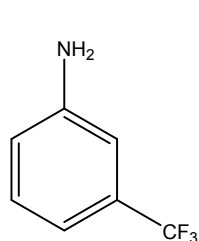
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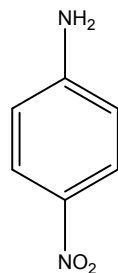


Flutamide

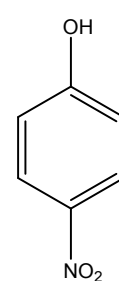
Nilutamide



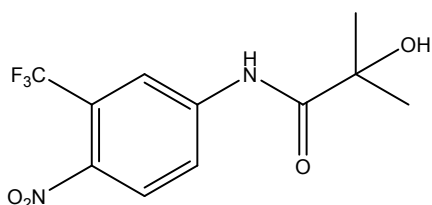
3-(Trifluoromethyl)aniline



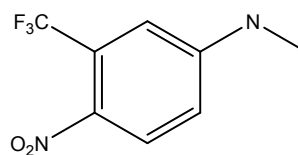
4-Nitroaniline



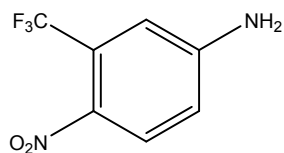
4-Nitrophenol



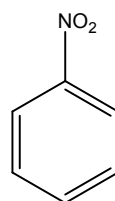
Hydroxyflutamide



N,N-dimethyl-4-nitro-3-(trifluoromethyl)aniline

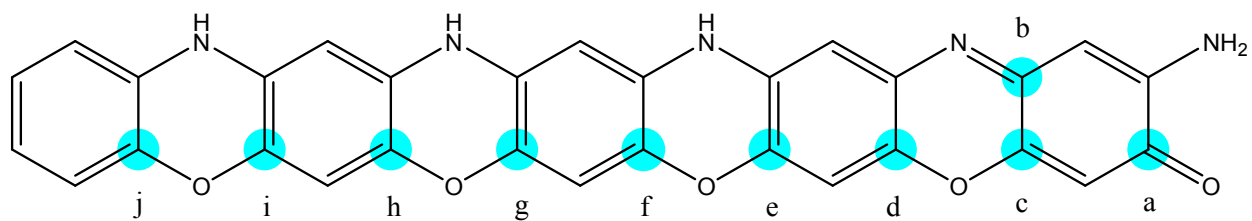


4-Nitro-3-(trifluoromethyl)aniline



Nitrobenzene

Scheme S1. Chemical structure of flutamide, nilutamide, 3-(Trifluoromethyl)aniline, 4-Nitroaniline, 4-Nitrophenol, hydroxyflutamide, N,N-dimethyl-4-nitro-3-(trifluoromethyl)aniline, 4-Nitro-3-(trifluoromethyl)aniline and Nitrobenzene.



Scheme S2. The proposed pentameric structure of the synthesized MPAP.

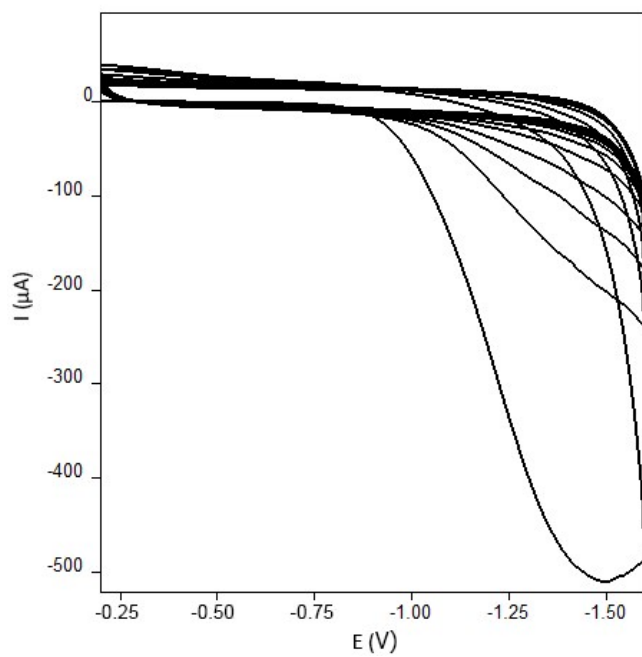


Fig. S1. The preparation of the rGO modified electrode using cyclic voltammetry at scan rate of 50 mV/s for 20 cycles in Na_2SO_4 (25mM).

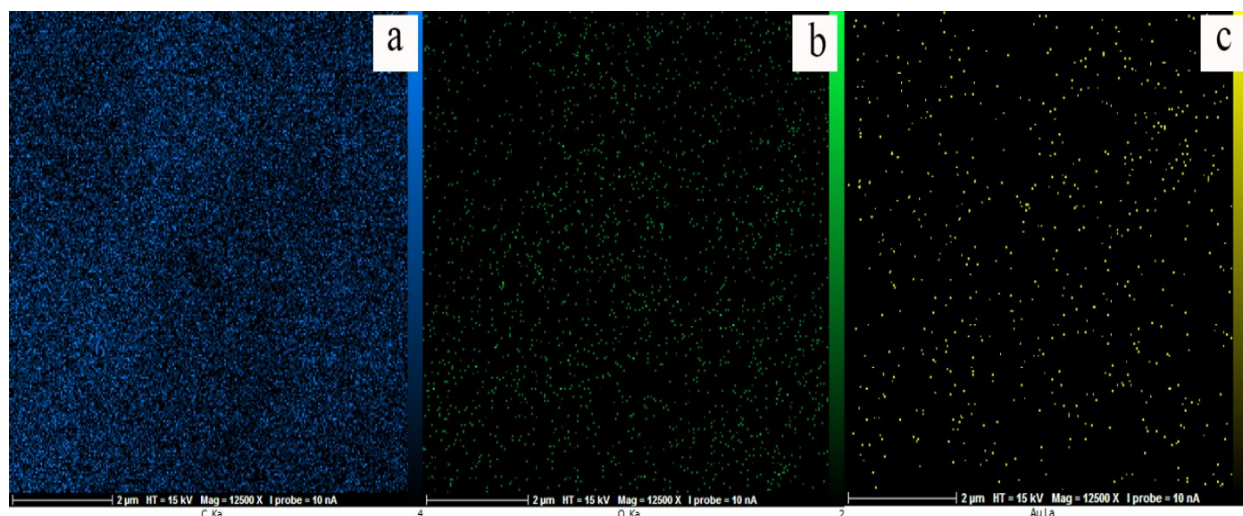


Fig. S2. The elemental EDS mapping images of the rGO-Au modified electrode surface (a: carbon, b: oxygen and c: gold)

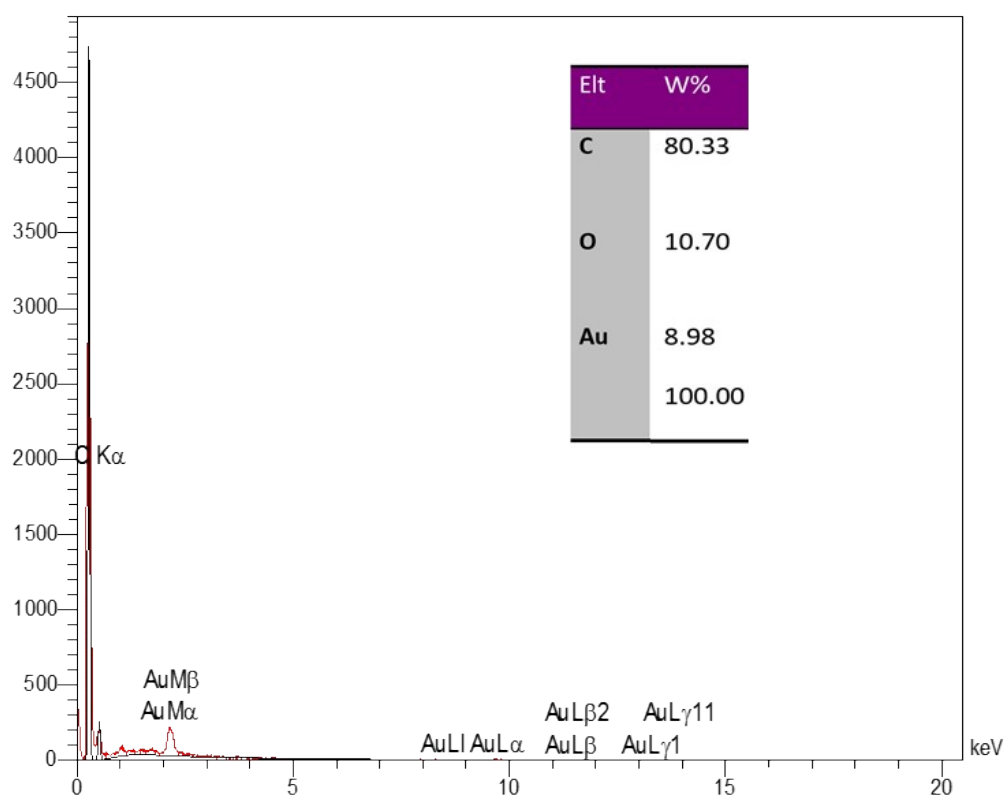


Fig. S3. The EDS spectrum of the rGO-Au modified electrode surface.

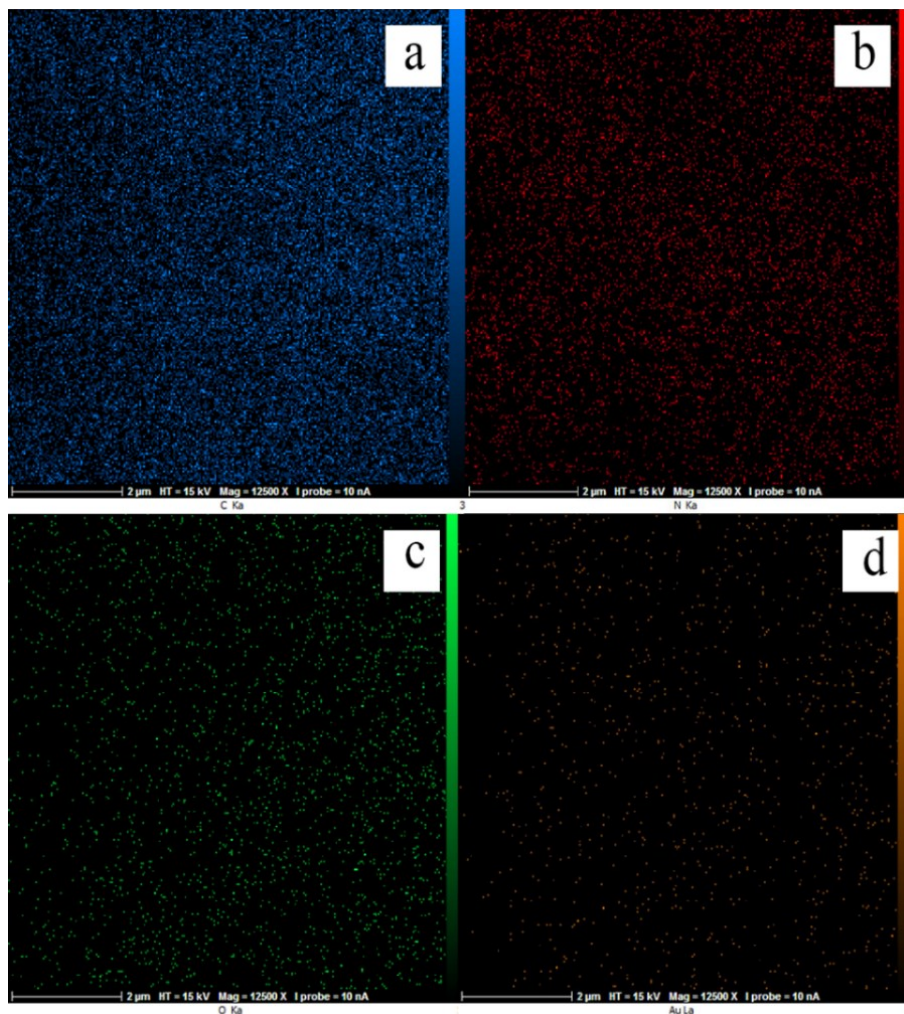


Fig. S4. The elemental EDS mapping images of the rGO-Au-MPAP modified electrode (a: carbon, b: nitrogen, c: oxygen and d: gold)

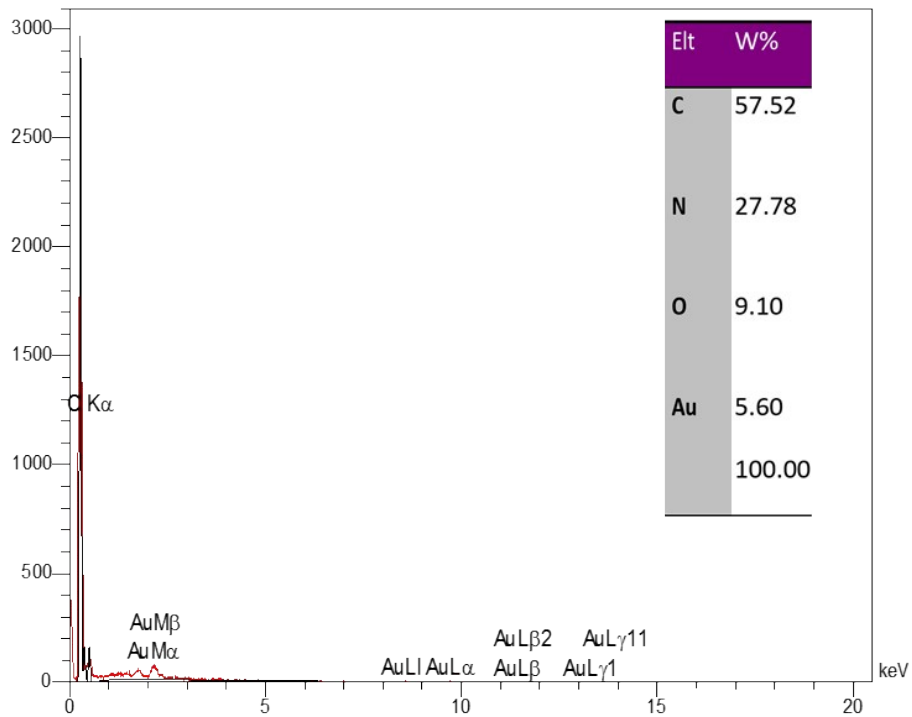


Fig. S5. The EDS spectrum of the rGO-Au-MPAP modified electrode surface.

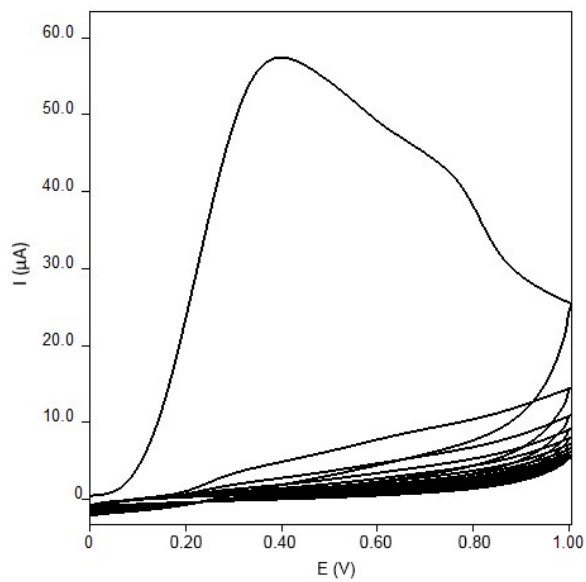


Fig. S6. The cyclic voltammograms of 2- aminophenol (0.05 mM) in a phosphate buffer solution (pH=8, 0.05M) at scan rate of 50 mV/s for 30 cycles.

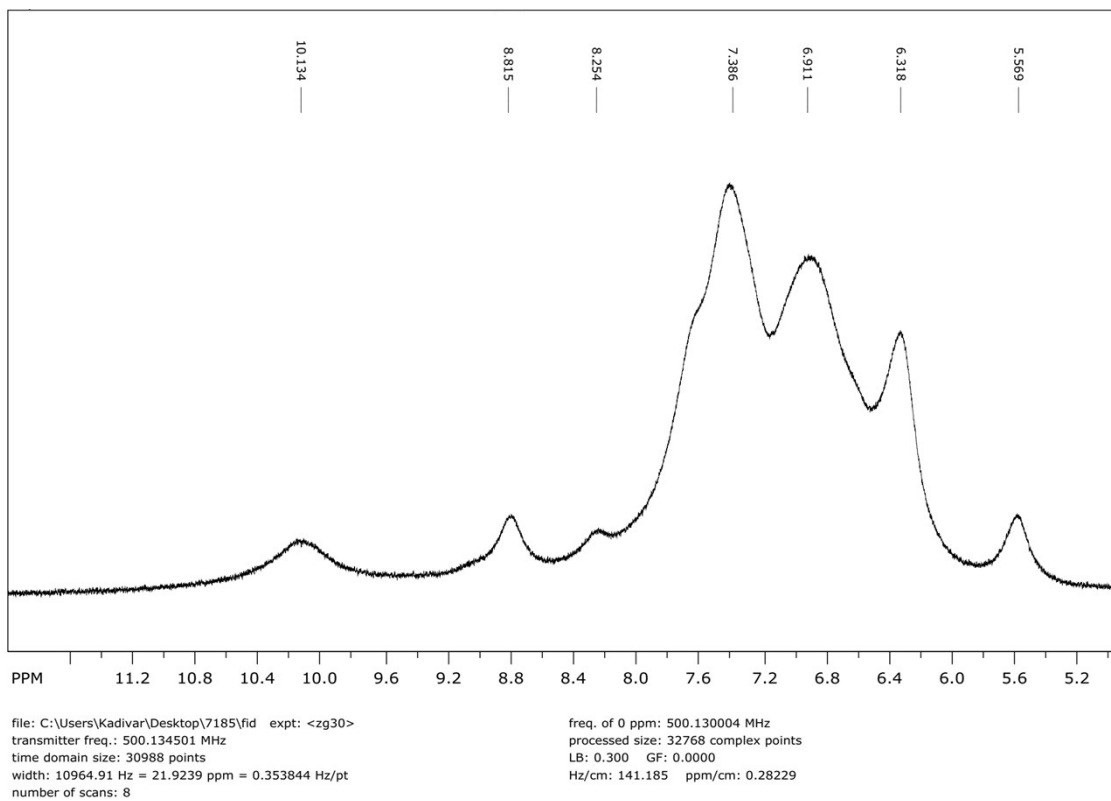


Fig. S7. The ¹H NMR spectrum of the synthesized MPAP.

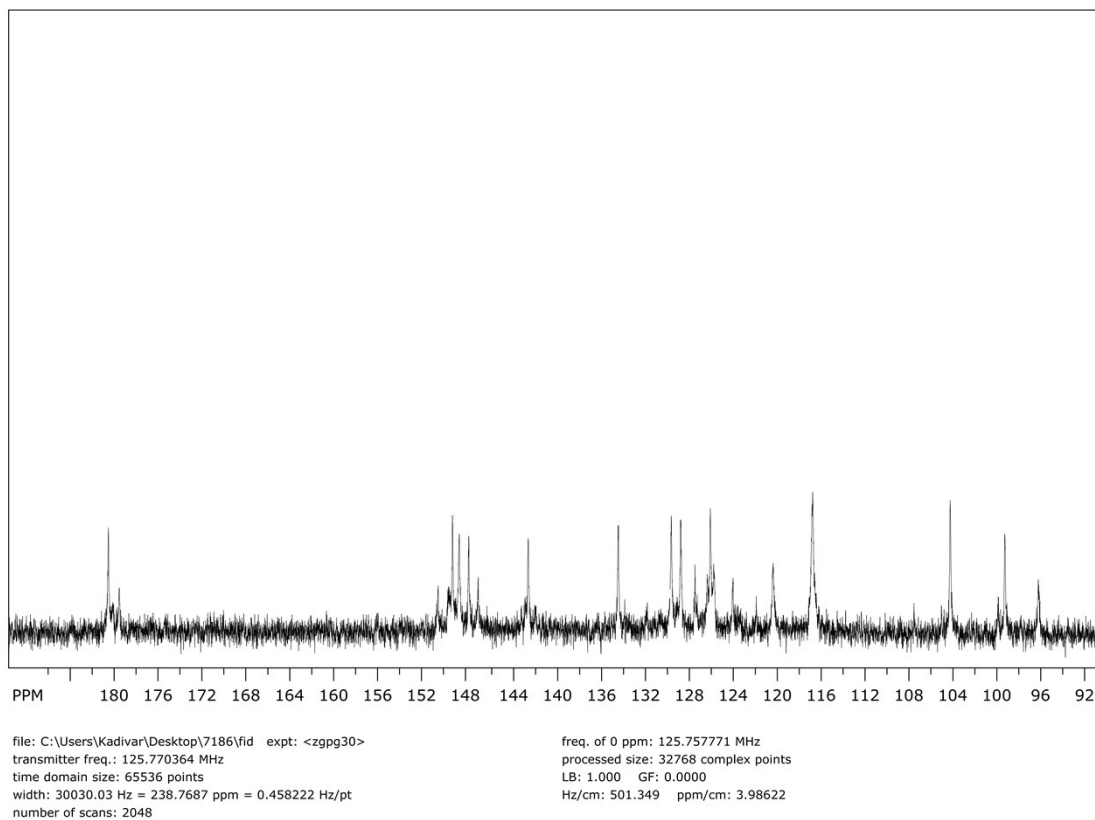


Fig. S8. The C NMR spectrum of the synthesized MPAP.

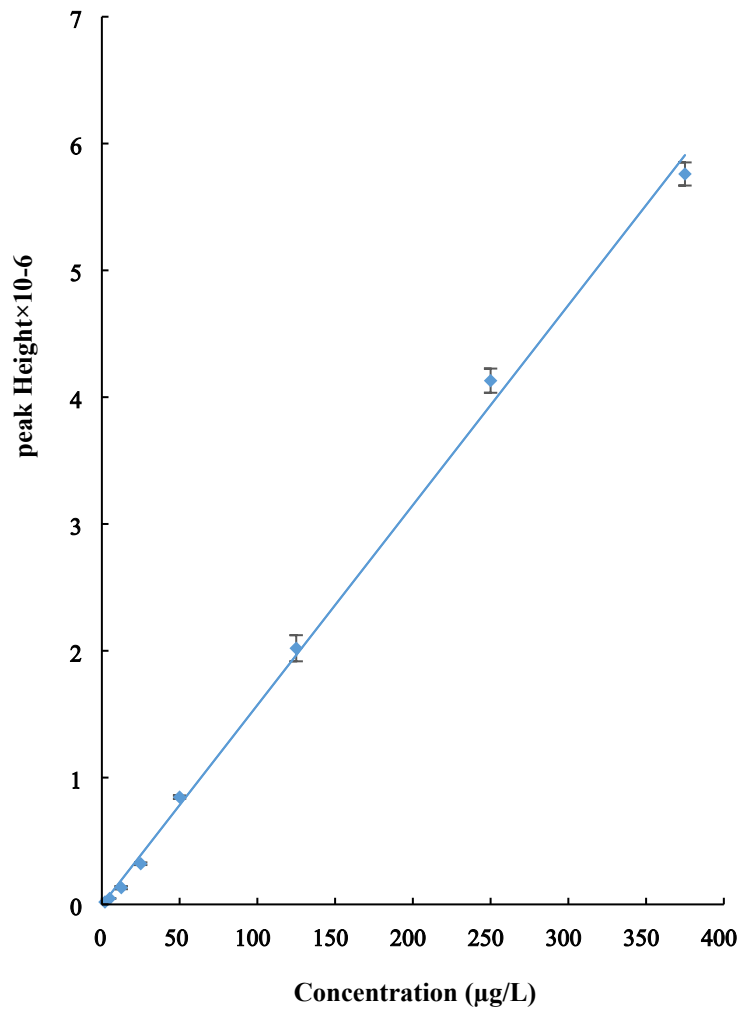


Fig. S9. The calibration curve of flutamide using the obtained peak heights.

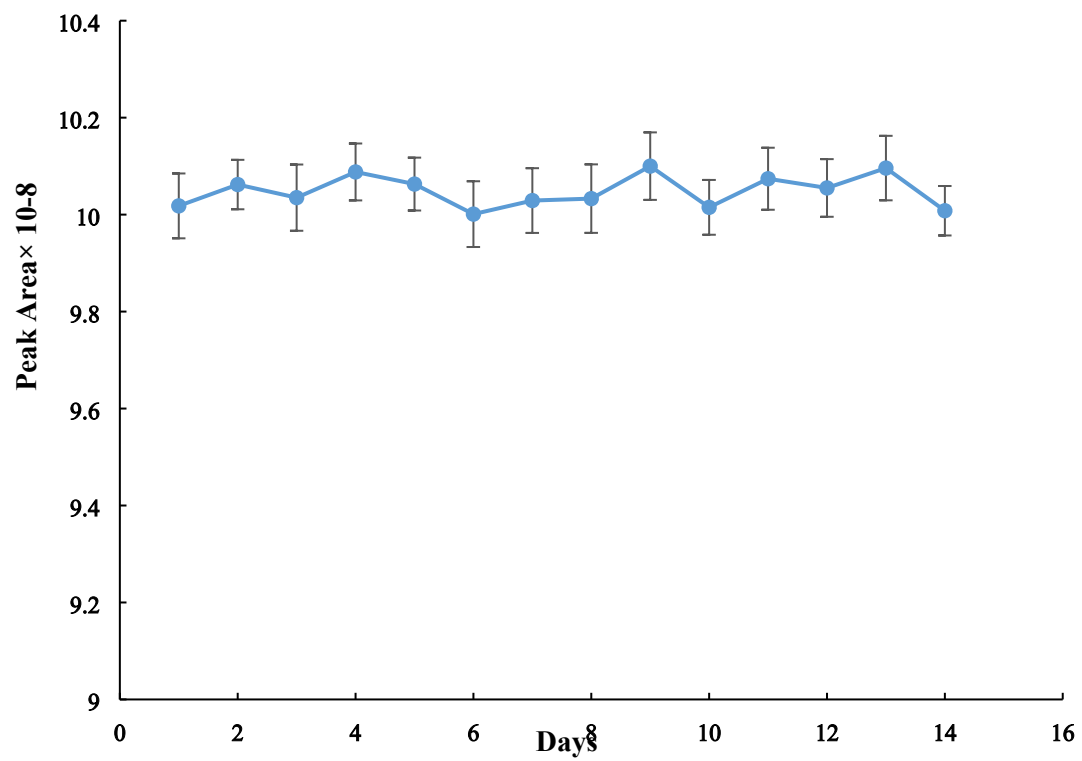


Fig. S10. The Stability of the rGO-Au-MPAP modified electrode performance in 2 weeks.