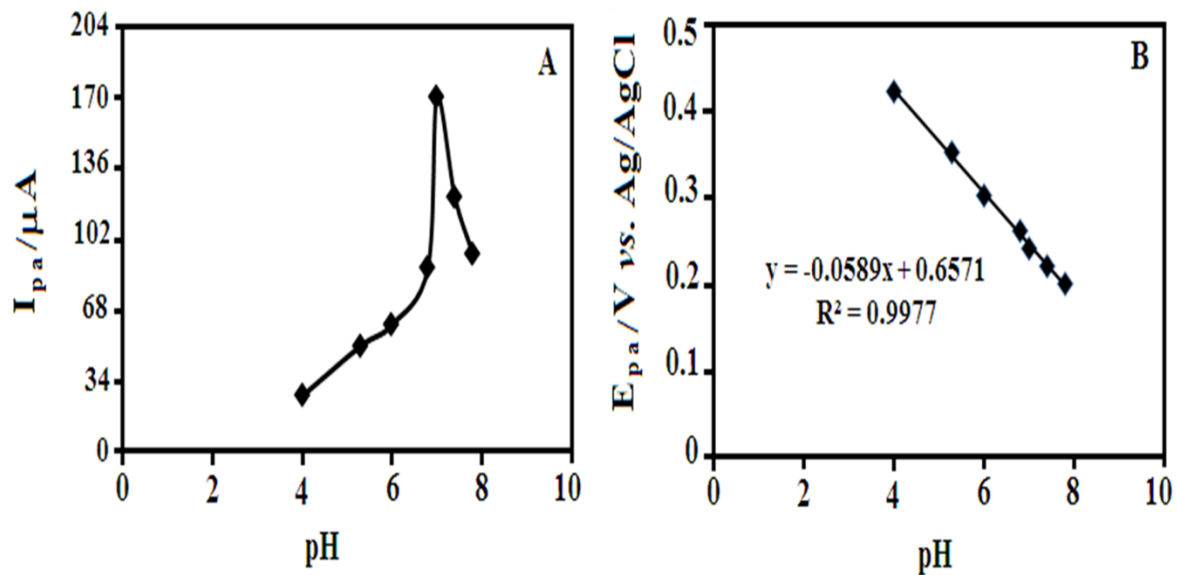


### Supporting information

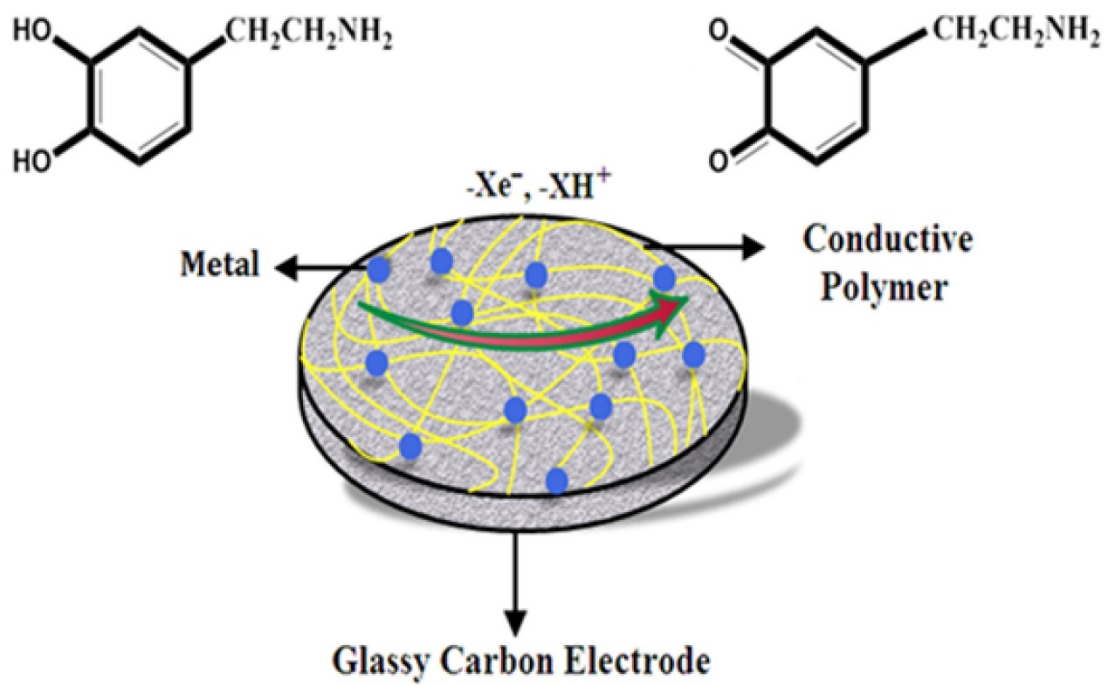


**Fig. S1.** Effect of pH on the (A) anodic peak currents and (B) anodic peak potential.

**Table S1.** The  $R_s$ ,  $R_{ct}$ ,  $Q$  and  $W$  values from equivalent circuit fitting of the electrochemical impedance plots.

<b>Electrode</b>	<b><math>R_s</math> (<math>\Omega</math>)</b>	<b><math>R_{ct}</math> (<math>\Omega</math>)</b>	<b><math>Q</math> (<math>\mu\text{Mho}</math>)</b>	<b><math>W</math> (<math>\mu\text{Mho}</math>)</b>	<b><math>n</math></b>
Bare	173.34	7517.4	3.85E-06	9.97E-05	0.761
Ultrappy-GCE	180	2236.5	8.65E-06	6.88E-05	0.811
Pt NPs-GCE	184.48	936.87	4.9931E-05	5.51E-03	0.879
Pt/Ultrappy-GCE	190.93	476.02	8.02E-04	3.34E-04	0.794

Scheme 1



**Table S2.** Determination of DA in DA hydrochloride injection.

<b>Sample</b>	<b>Content (<math>\mu\text{M}</math>)</b>	<b>Added (<math>\mu\text{M}</math>)</b>	<b>Found (<math>\mu\text{M}</math>)</b>	<b>RSD %</b>	<b>Recovery (%)</b>
1	100.57	0	100.50	1.31	99.93
2	100.57	10	110.24	1.25	99.70
3	100.57	20	119.69	1.24	99.27