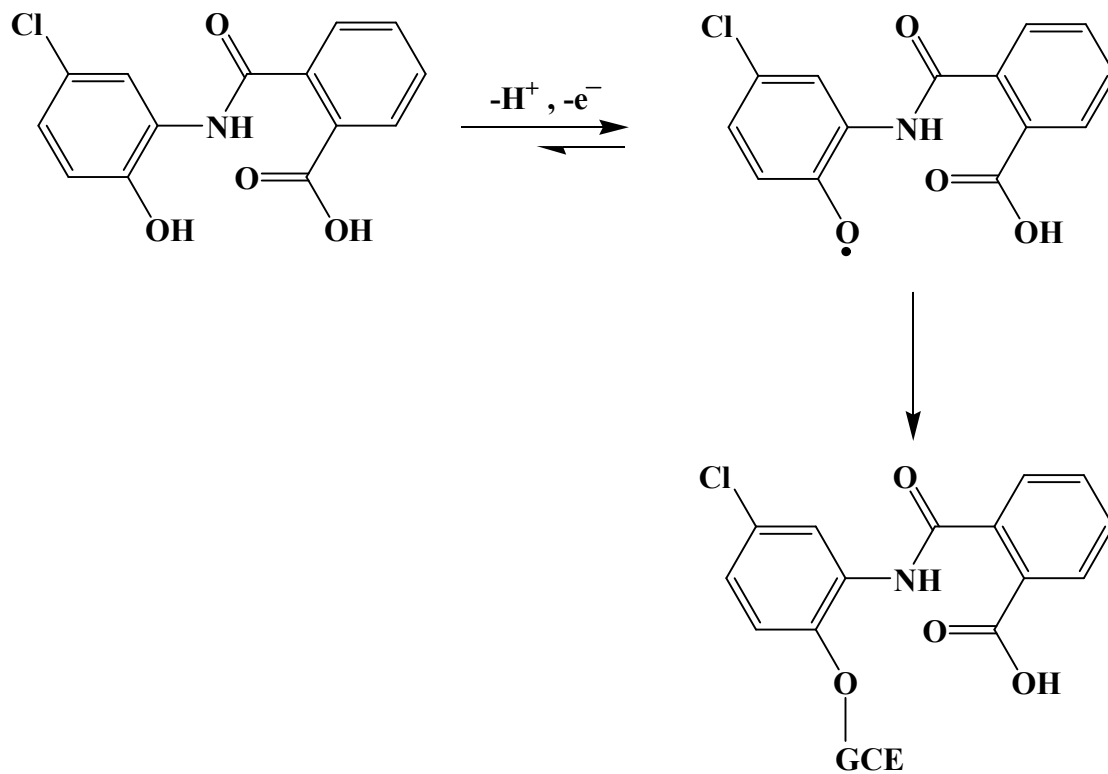
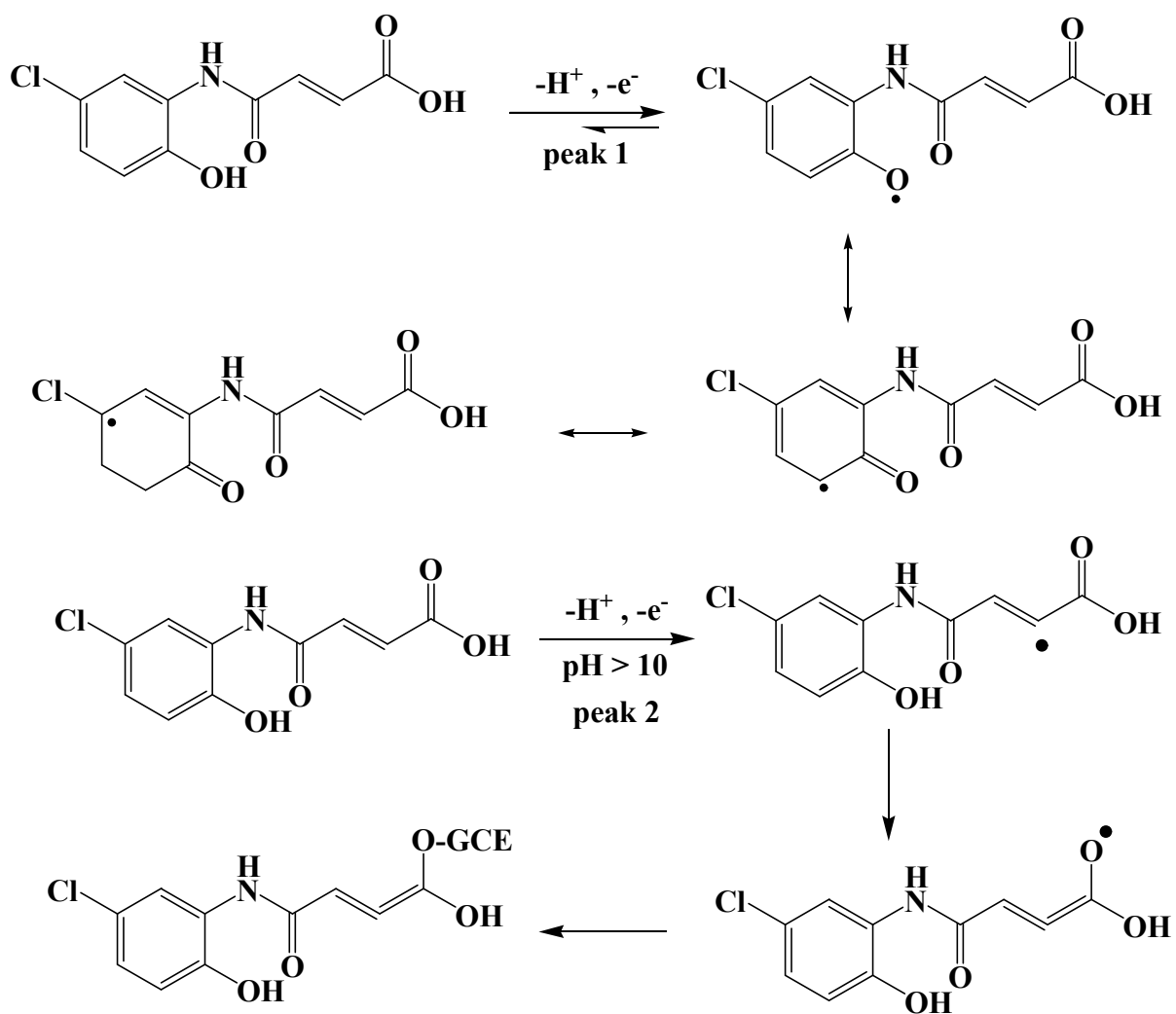


## Supporting information

### Supporting schemes



Scheme S1. Proposed oxidation mechanism of CBA.



Scheme S2. Suggested oxidation mechanism of OBEA

## Supporting tables

Table S1: Characteristic IR frequencies ( $\text{cm}^{-1}$ ) of the compounds

Comps.	$\nu_{\text{OH}}$	$\nu_{\text{NH}}$	$\nu_{\text{C=O}}$	$\nu_{(\text{COO})\text{asym}}$	$\nu_{(\text{COO})\text{sym}}$	$\Delta\nu$
<b>OBEA</b>	3152	3395	1748	1691	1358	333
<b>OBA</b>	3277	3376	1748	1699	1352	347
<b>CBA</b>	3311	3379	1712	1699	1384	315

Table S2:  $^1\text{H}$  NMR data of the compounds

Comps.	Proton No.							
	H1	H3	H4	NH	H7	H9	H10	H12
OBEA	13.12, s	6.37-6.33, d [12]	6.65-6.61, d [12.3]	10.24, s	8.02-8.01, d (2.4)	7.03-6.99, dd (2.4)	6.90-6.87, d [8.7]	9.87, s
OBA	11.17, s,bs	2.53-2.48, d [13.2]	2.68-6.64, d [13]	11.17, s, bs	7.98-7.97, d (2.1)	6.96-6.92, dd (2.7)	6.87-6.84, d [8.4]	9.27, s
CBA	10.22, s	6.37-6.33, d [12]	6.65-6.61, d [12.3]	10.24, s	8.02-8.01, d (2.4)	7.03-6.99, dd (2.4)	6.90-6.87, d [8.7]	

$^3\text{J}[\text{H}^1\text{H}]$  and  $^4\text{J}(\text{H}^1\text{H})$

Table S3:  $^{13}\text{C}$  NMR data of the compounds

Comps.	Carbon No.										
	2	3	4	5	6	7	8	9	10	11	a-d
OBEA	174.3	29.3	31.4	171.3	128.2	121.3	123.8	122.6	116.7	146.6	-
OBA	167.8	130.9	132.0	163.8	127.4	121.9	124.8	122.6	116.2	147.2	-
CBA	172.5	130.5	132.4	167.3	123.3	118.5	122.4	115.6	113.7	153.7	123.9, 143.3, 135.1, 130.7

Supporting figures

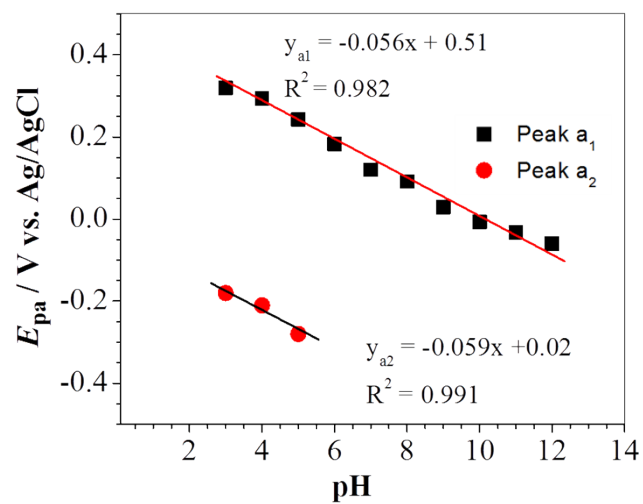


Fig. S1.  $E_p$  vs pH plots of CBA.

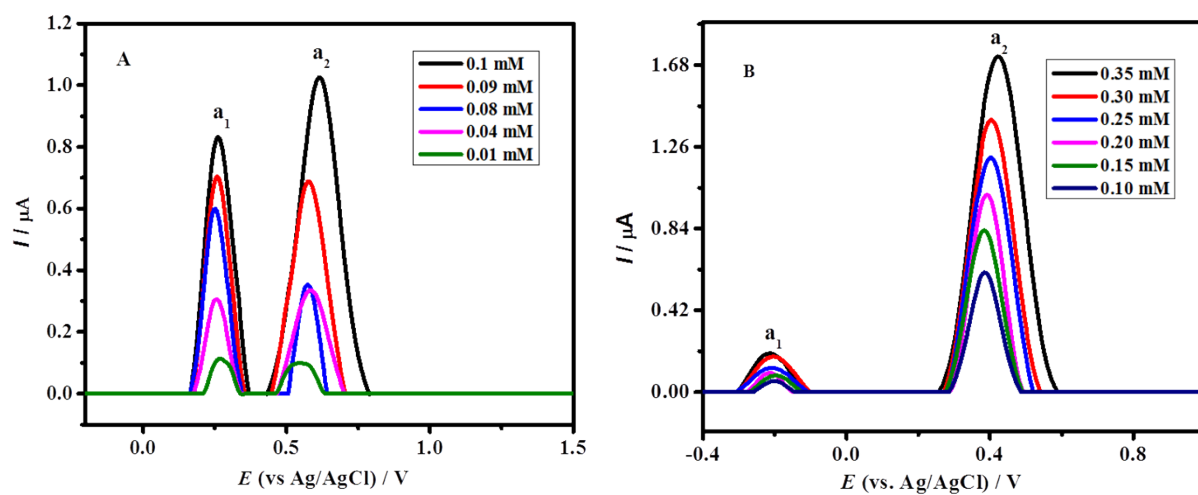


Fig. S2. Differential pulse voltammograms of different concentration of (A) OBEA and (B) CBA obtained at  $5 \text{ mVs}^{-1}$  in media of pH 3.0.

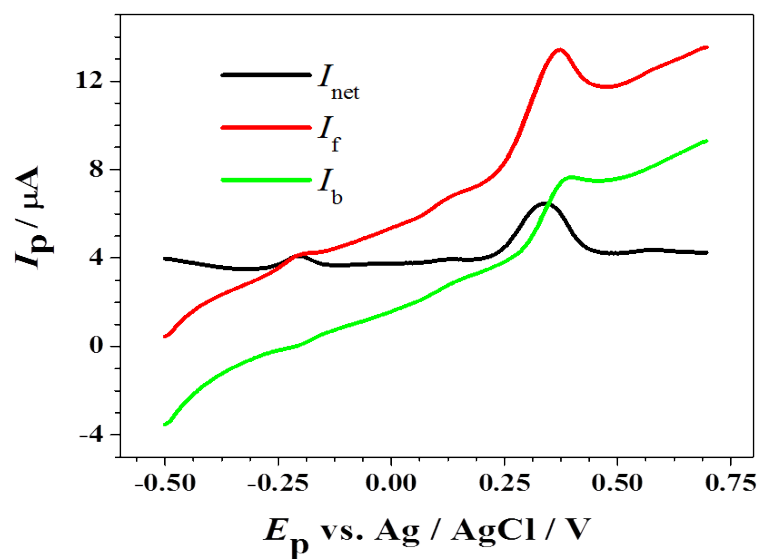


Fig. S3. SWV of 0.5 mM solution of CBA recorded in medium of pH 3.0, showing  $I_t$  – total current,  $I_f$  forward current,  $I_b$  – backward current;  $f = 20$  Hz,  $\Delta E_s = 5$  mV,  $v_{\text{eff}} = 100$  mV s<sup>-1</sup> and pulse amplitude = 50 mV.

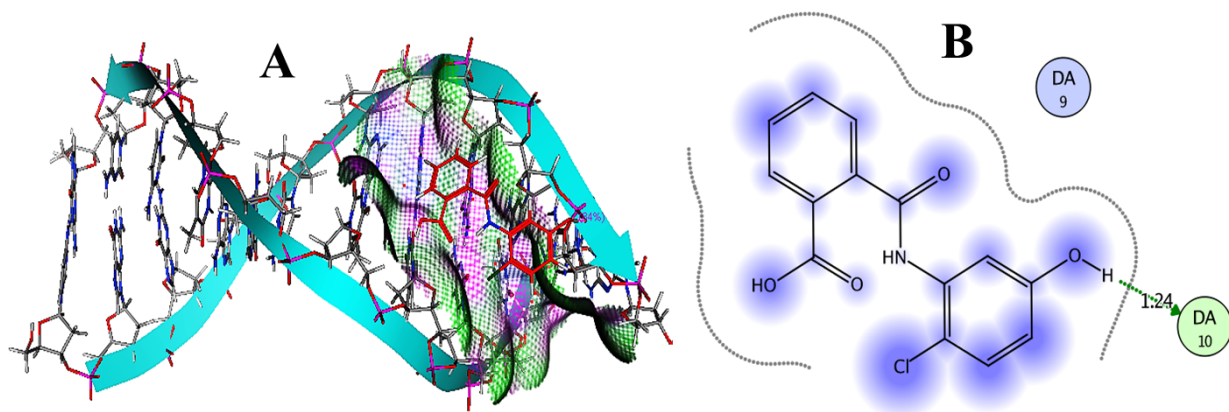


Fig. S4. (A) Docked pose and (B) Lig plot of CBA

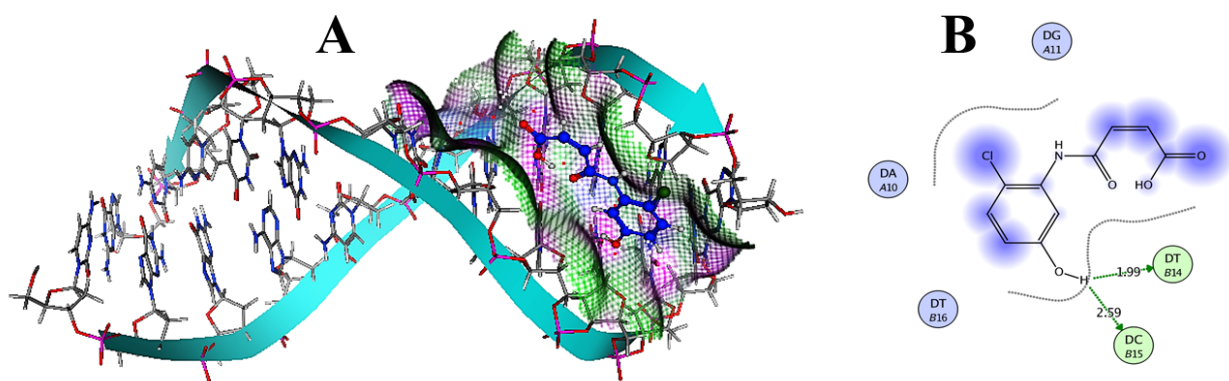


Fig. S5. (A) Docked pose and (B) Lig plot of OBEA