  

**Fig. S1.** Plots of peak current corresponding to peak **1a** against square root of scan rate using 0.6 mM solution of (A) HACAD, (B) HAD and (C) HOAD



**Fig. S2.** Plot of$logk^{o}$as a function of 1/T





**Fig. S3.** DPV’s of (A) HAD and (B) HOAD in media of different pH at 5 mVs-1 (C) plot of peak potentials of HOAD against pH



**Fig. S4.** Square wave voltammograms of different concentrations of HOAD at 100 mVs-1 in a medium buffered at pH 10.0. Inset shows plot of peak current *versus* concentration.



**Scheme S1.**  Chemical structure of HOAD showing hydrogen bonding



 **Scheme S2.** Proposed redox mechanism of HOAD in pH 3-12