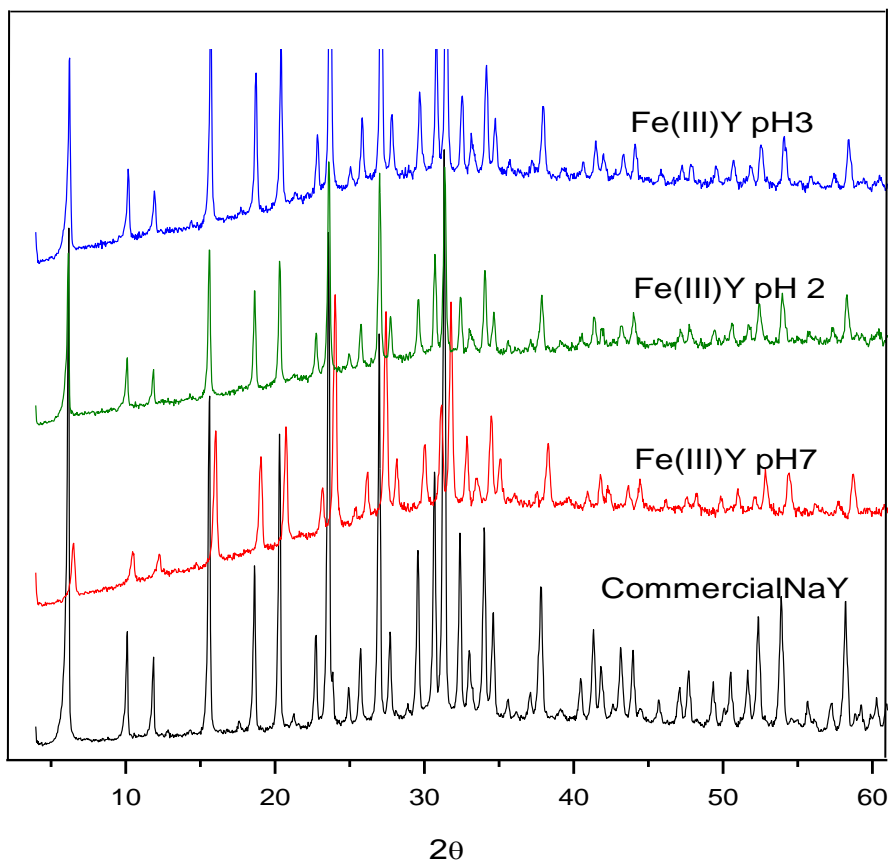
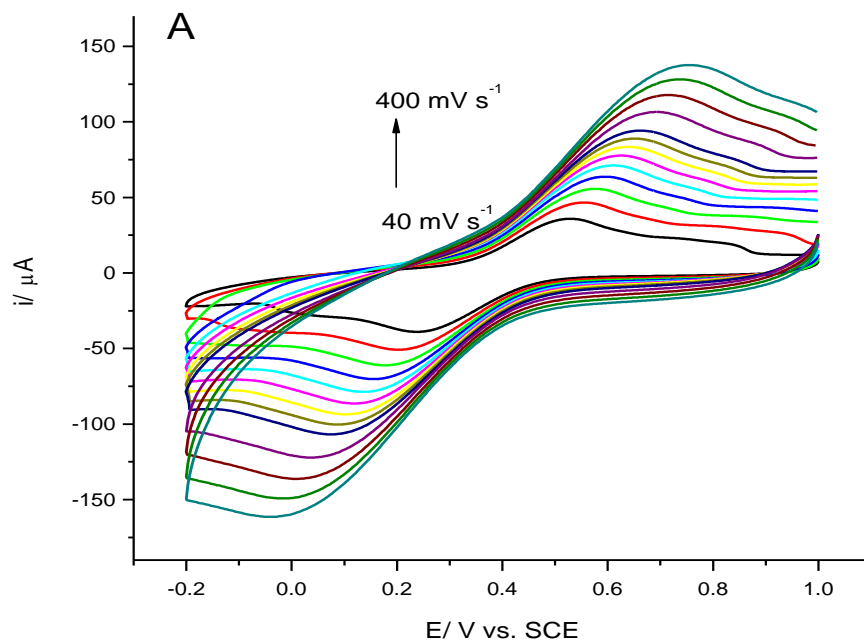


Supplement information 1

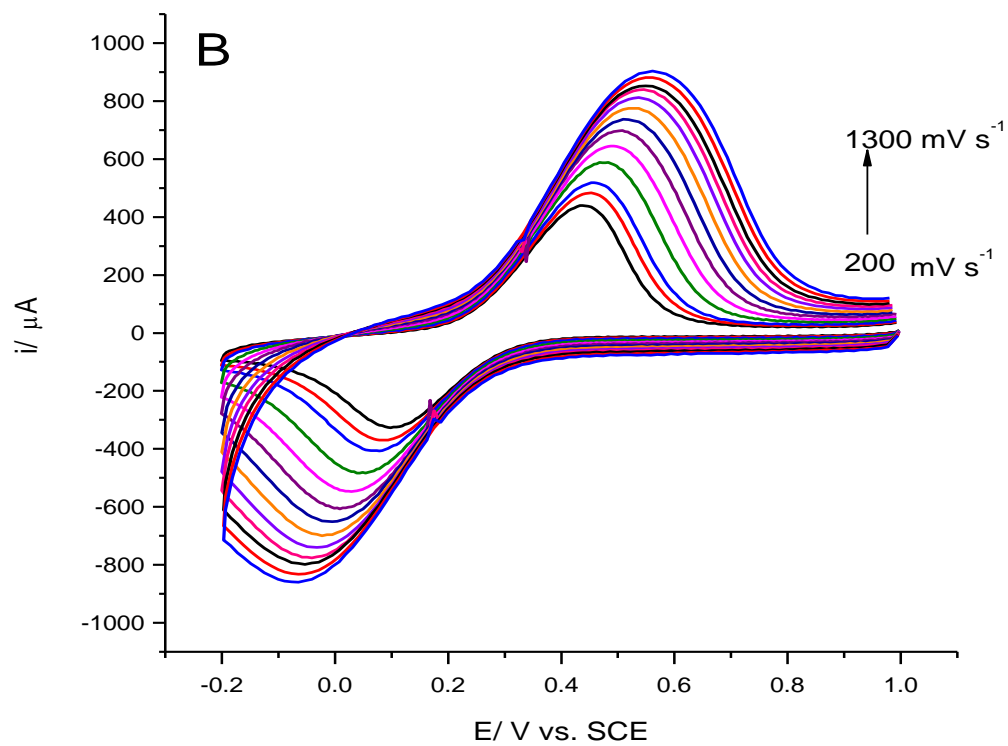


Optimization process was carried out for different doping pH condition. The above figure shows x-ray diffraction patterns for faujasite zeolite type (NaY) doped with iron (III) at different pHs compared with that of commercial NaY.

Supplement information 2

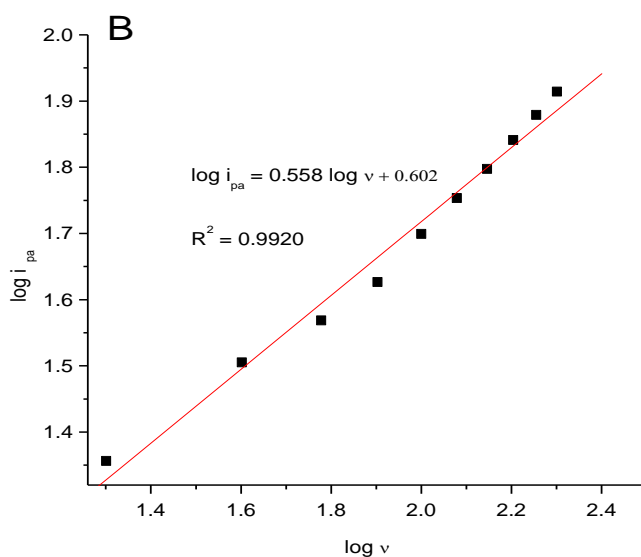
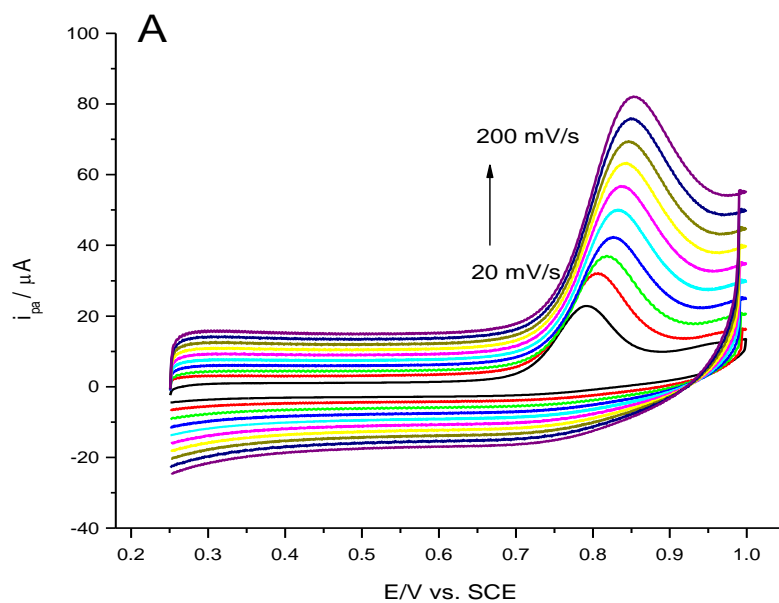


Cyclic voltammograms of Fe³⁺/Fe²⁺ in 0.3 K₂SO₄ solutions at Fe³⁺Y modified electrode without acid treatment at various scan rates: 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 300, 350 and 400 mV s⁻¹.



Cyclic voltammograms of $\text{Fe}^{3+}/\text{Fe}^{2+}$ in $0.3 \text{ K}_2\text{SO}_4$ solutions at Fe^{3+}Y modified electrode with acid treatment at various scan rates: 200, 250, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200 and 1300 mV s^{-1} .

Supplement information 3



(A) Cyclic voltammograms of PAM-2 (50 μM) in phosphate buffer solution pH 7.0 at Fe^{3+}Y modified electrode with various scan rates: 20, 40, 60, 80, 100, 120, 140, 160, 180, and 200 mV s^{-1} .

(B) Plot of $\log i_p$ versus $\log \nu$