Electronic Supplementary Material (ESI) for RSC Advances.

A high sensitive non-enzymatic hydrogen peroxide and hydrazine electrochemical sensor based on 3D micro-snowflakes architectures of α-Fe_2O_3

S.Majumder[#a,b*], B.Saha[#a], S.Dey[b], R.Mondal[b], S. Kumar[b]and S. Banerjee[a*]

[a]Saha Institute of Nuclear Physics, 1/AF Bidhannagar, Kolkata – 700064, India

[b]Department of Physics, Jadavpur University, Kolkata – 700032, India

[*]Corresponding Authors Email-kumars@phys.jdvu.ac.in,
sangam.banerjee@saha.ac.in

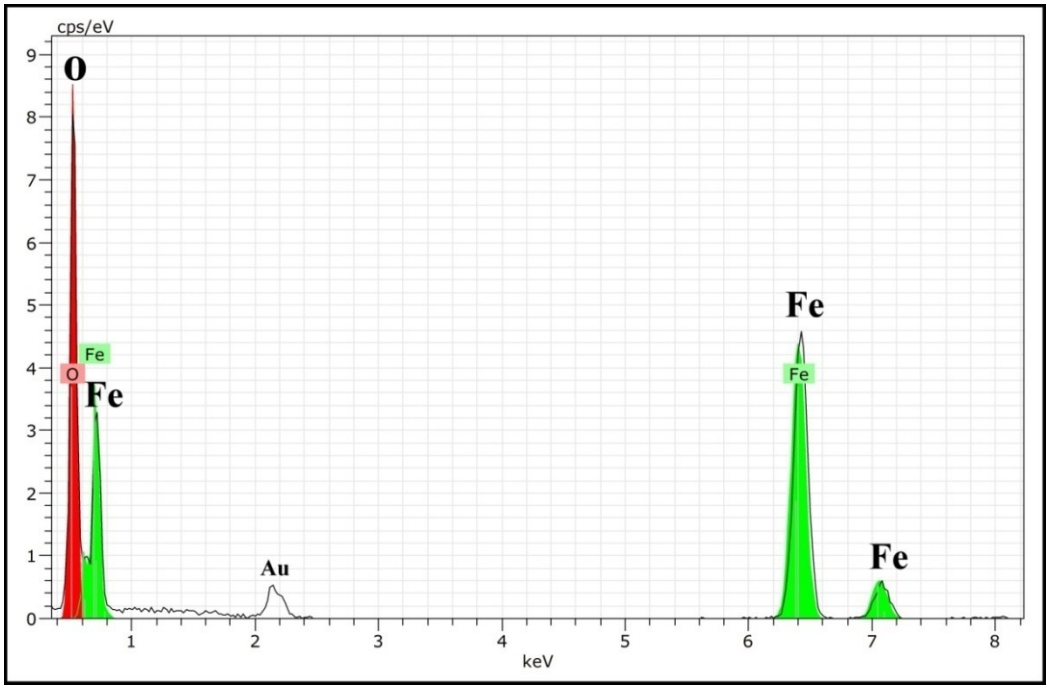

Fig. S1 EDS spectra of the micro-snowflake structured α-Fe_2O_3.

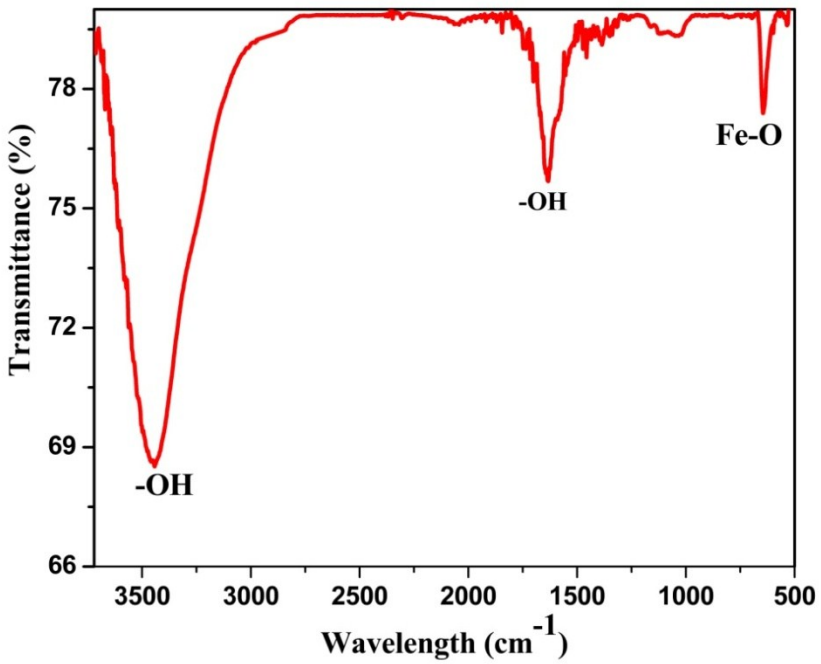

Fig. S2 FTIR spectra of the micro-snowflake structured α-Fe_2O_3.

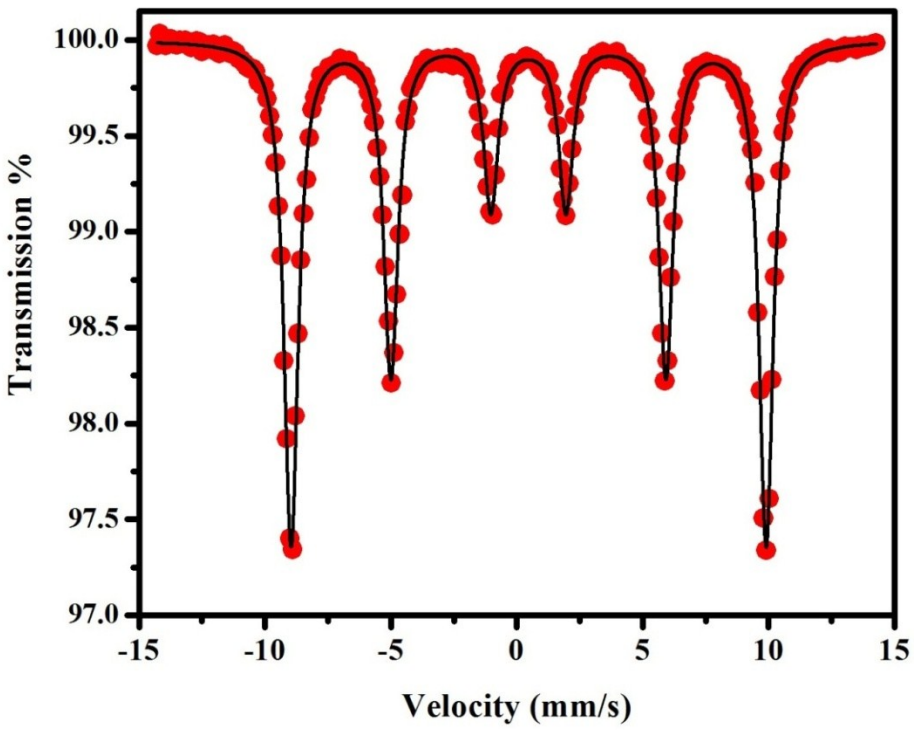

Fig. S3 Mossbauer spectra of the micro-snowflake structured α-Fe_2O_3.

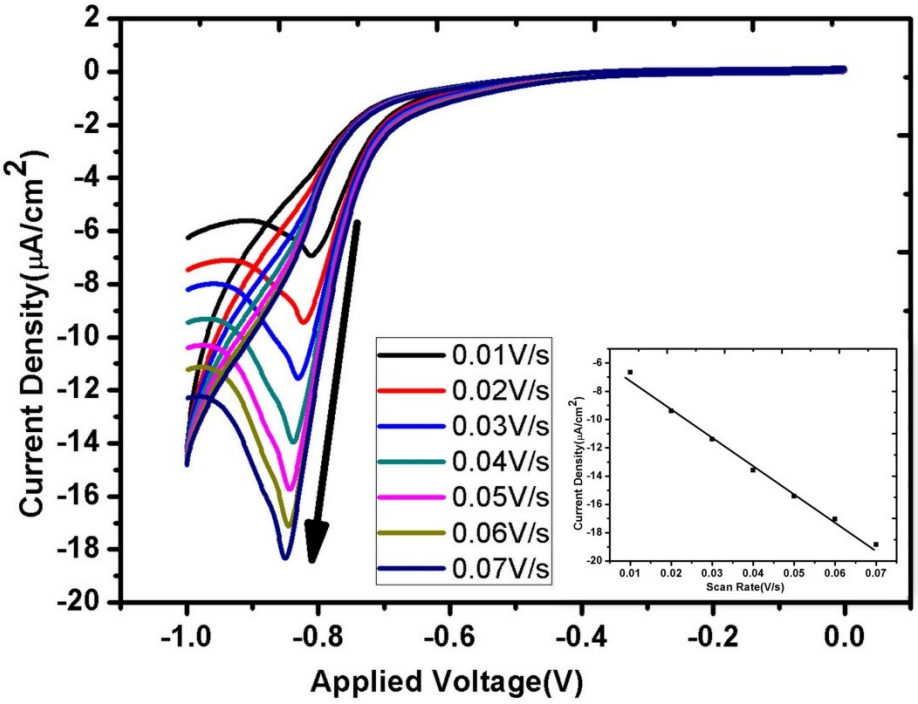

Fig. S4 Cyclic voltmmetrycurves of the sample at different scan rate, Linear dependence of current density Vs Scan rate (Inset).

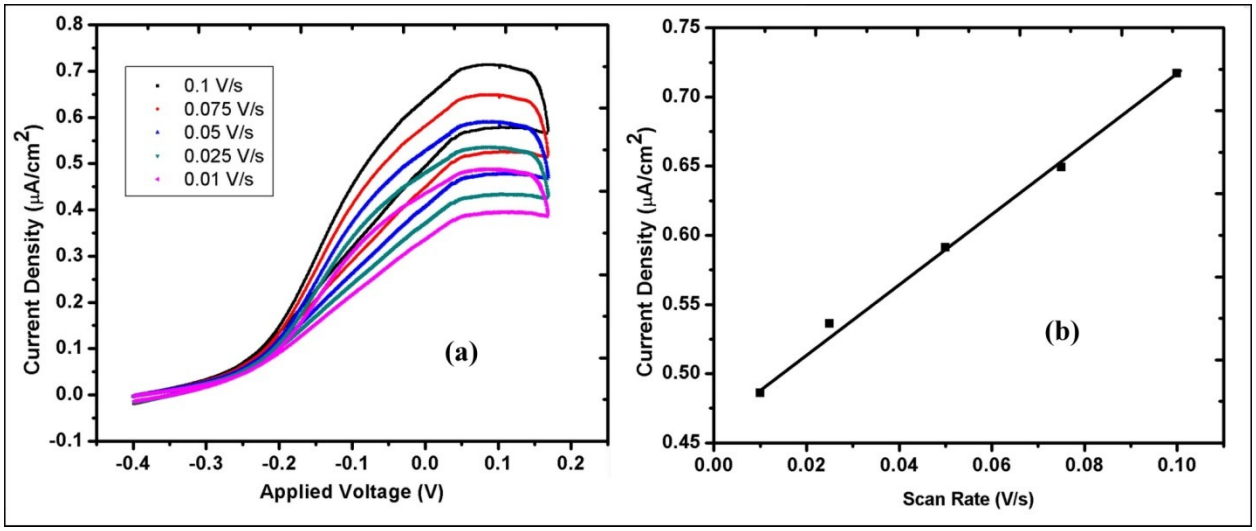

Fig. S5 Cyclic voltmmetry curves of the sample at different scan rate variation in the presence of 10mM of hydrazine, and Linear dependence of current density vs Scan rate.