

Green synthesis of superparamagnetic maghemite nanoparticles using banana pseudo-stem: reusable heterogeneous catalyst for Fenton-like degradation of tetracycline antibiotic

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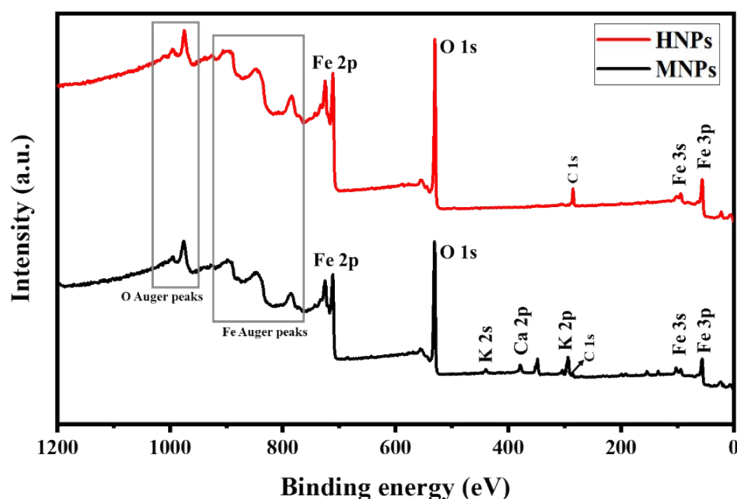


Fig. S1. Full XPS spectra of MNPs and HNPs

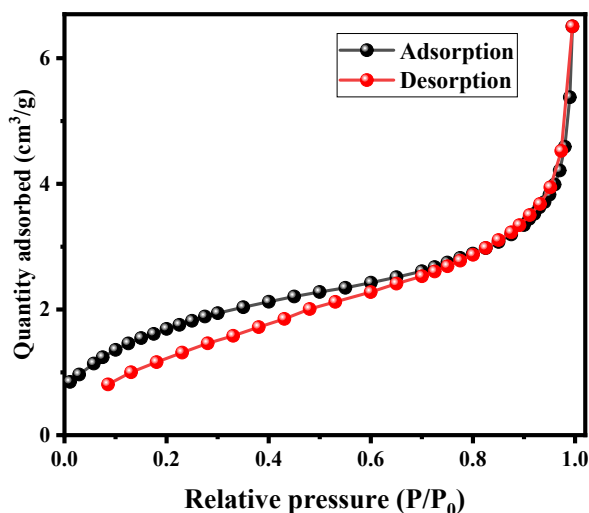


Fig. S2. N₂ adsorption-desorption isotherms of MNPs

Table S1. Textural properties of MNPs

Parameter	Area (m ² . g ⁻¹)
Single point surface area at P/P ₀ = 0.300157998	5.912
BET Surface Area	6.259
t-Plot External Surface Area	6.921
BJH Adsorption cumulative surface area of pores between 1.7000 nm and 300.0000 nm diameter	4.171
D-H Adsorption cumulative surface area of pores between 1.7000 nm and 300.0000 nm diameter	4.782

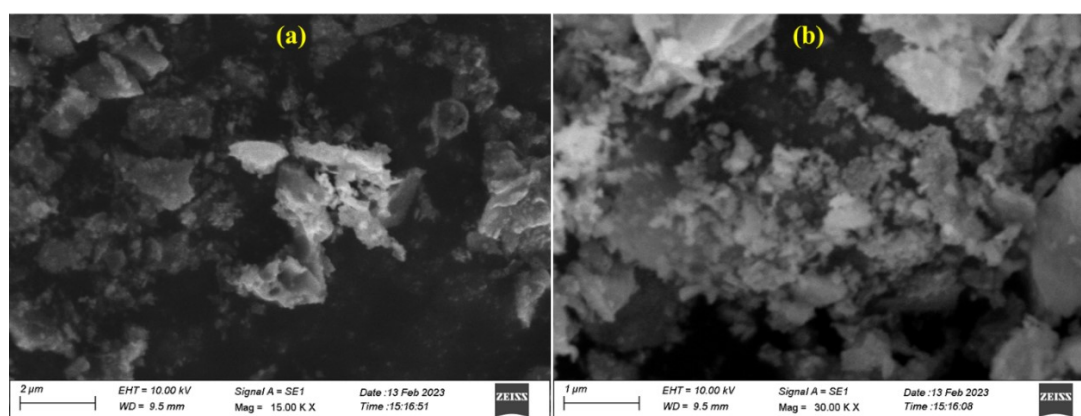


Fig. S3. SEM images of MNPs.

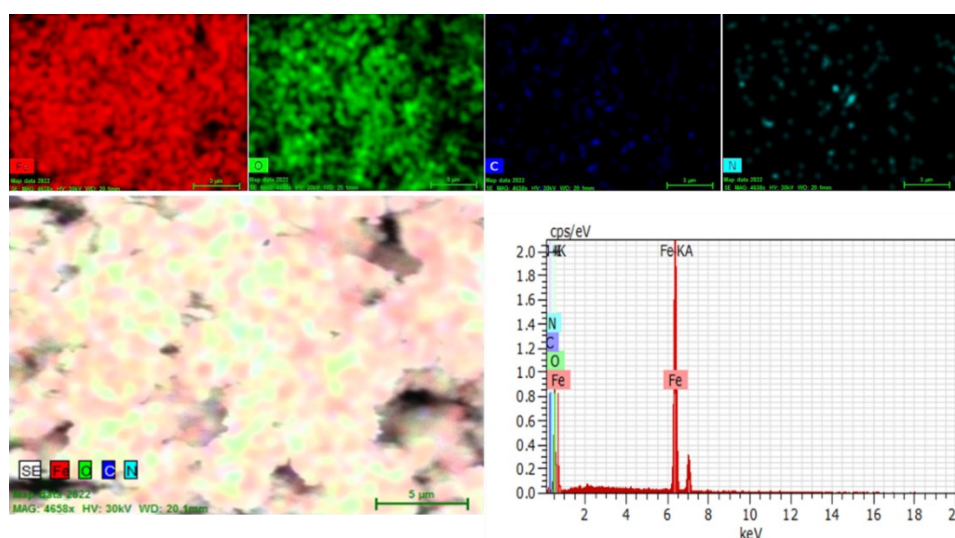


Fig. S4. Elemental mapping of MNPs and its EDAX spectrum.

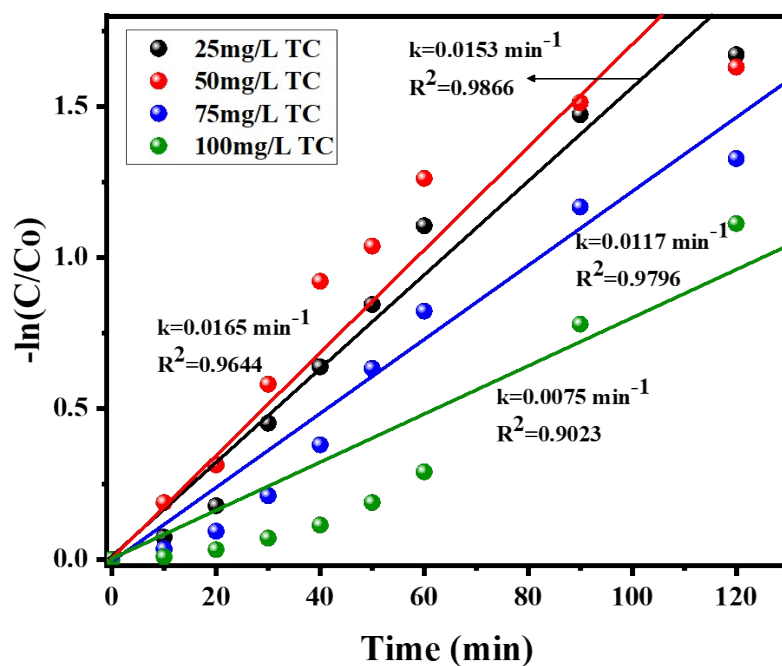


Fig. S5. Pseudo-first order kinetic plots for PS assisted degradation of TC activated by MNPs

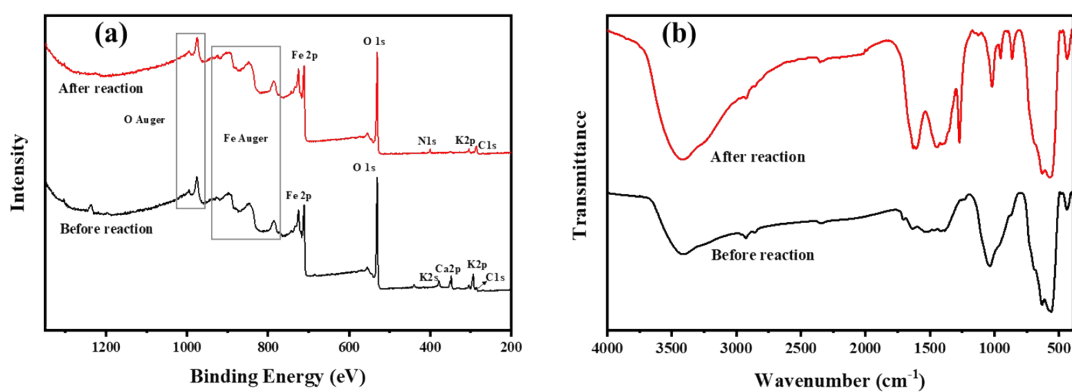


Fig. S6. Full XPS scan (a) and FT-IR spectra (b) of MNPs before and after five repeated cycles of operation

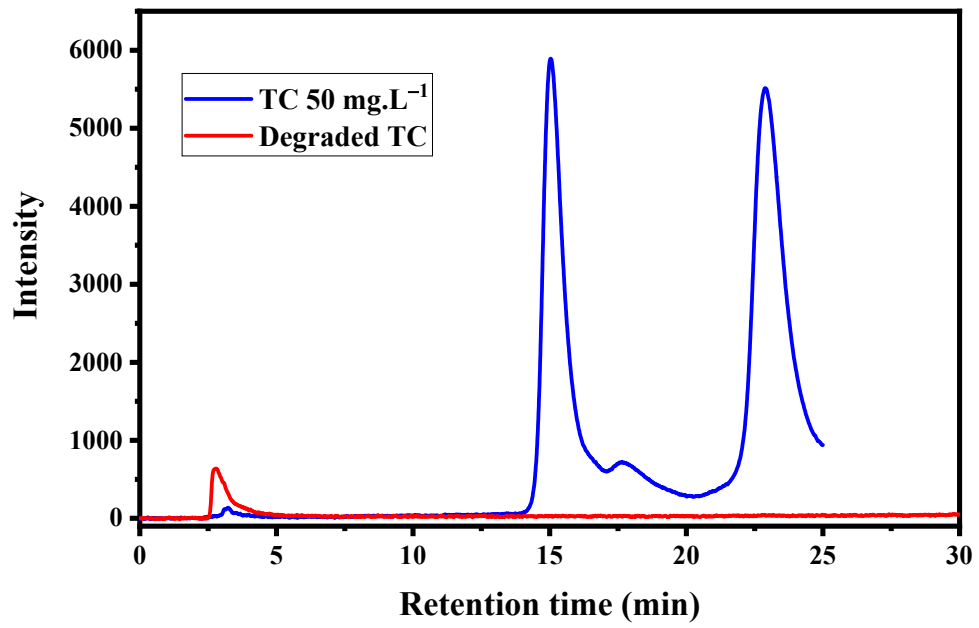


Fig. S7. Chromatograms of TC and degraded TC solutions.