Preparation of MgO NFs

Briefly, 10 g of $MgCl_2$ anhydrous was dissolved in 100 ml of distilled water, and ammonia solution (1 N) was added drop-wise at 50 ℃ under vigorous stirring till the solution pH reached 10. The resulting white precipitate of $Mg(OH)_2$ was centrifuged for 5 min at 3000 rpm. Subsequently, it was washed with distilled water three times and then dried overnight at 110 ℃. The dried powder was finally calcined at 500 ℃ in a muffle furnace for 3 h to obtain MgO NFs.

Text 1

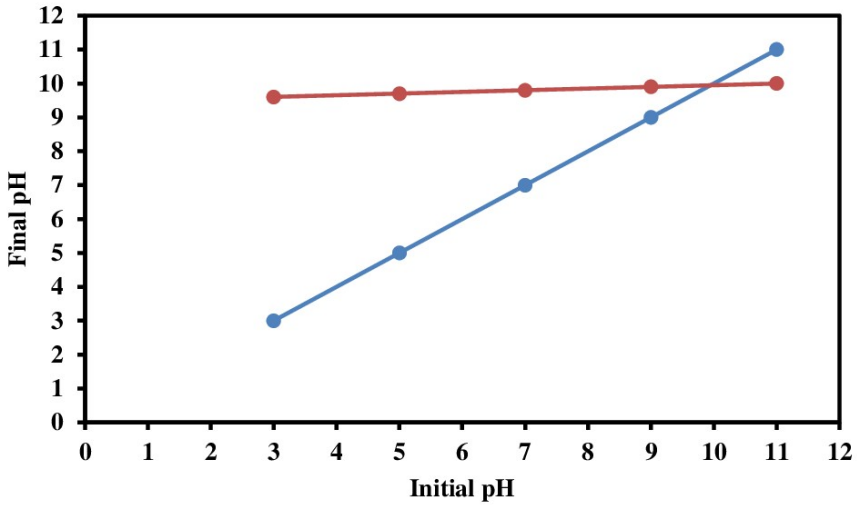
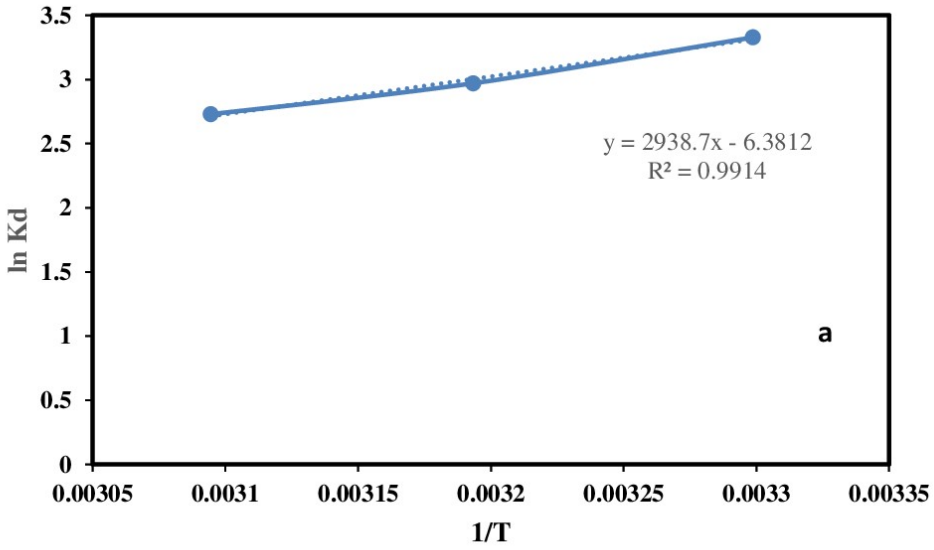


Fig. S1: Zeta Potential of F/MgO Nanocomposite at Different pH



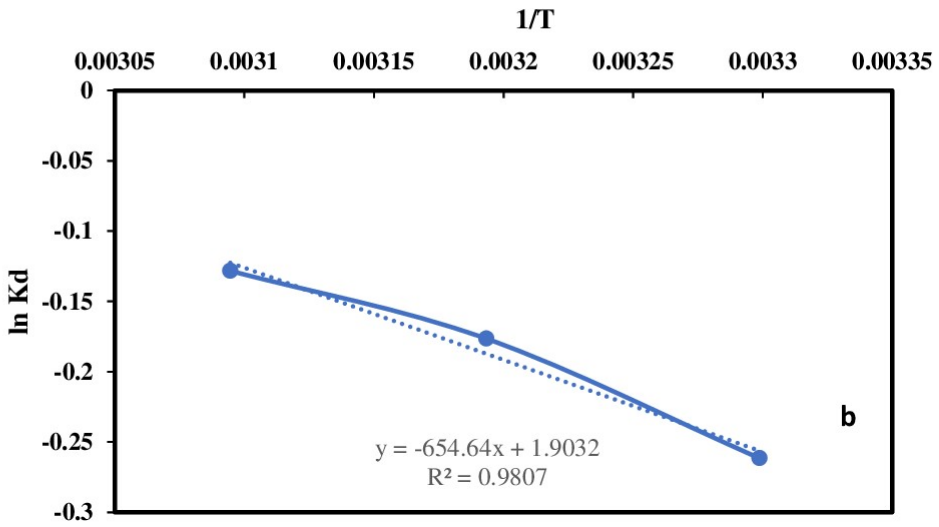
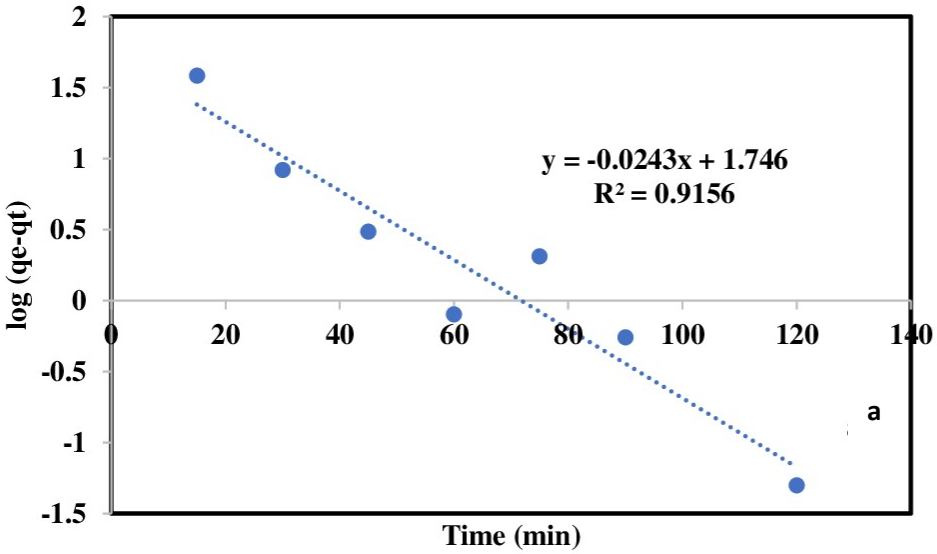
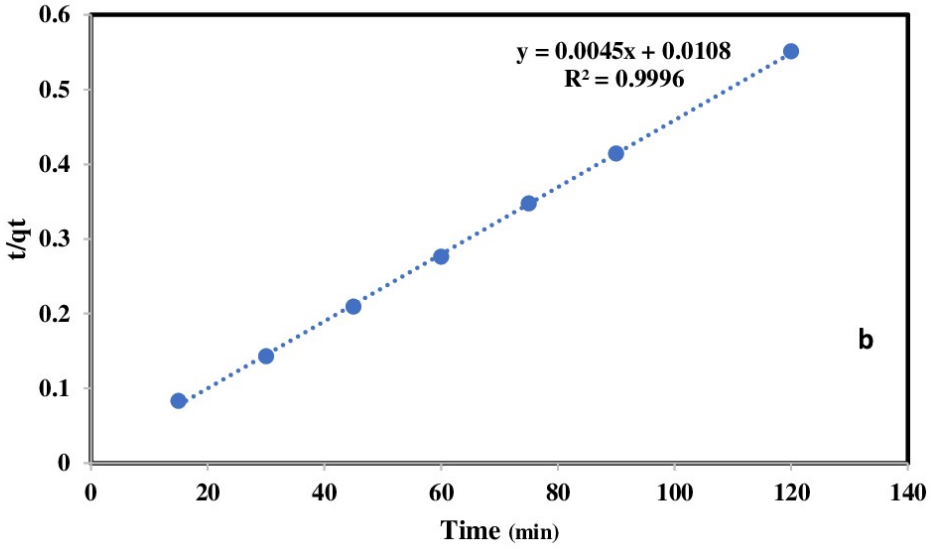
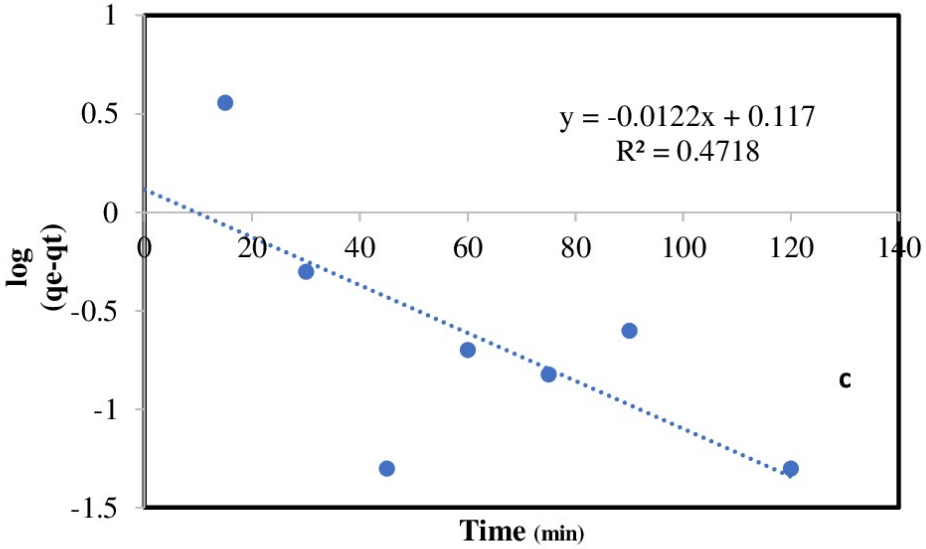
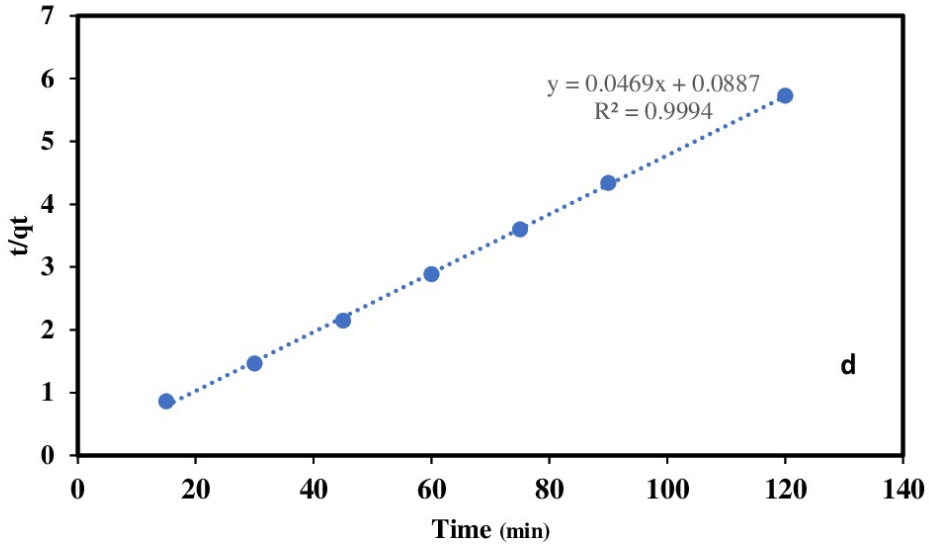


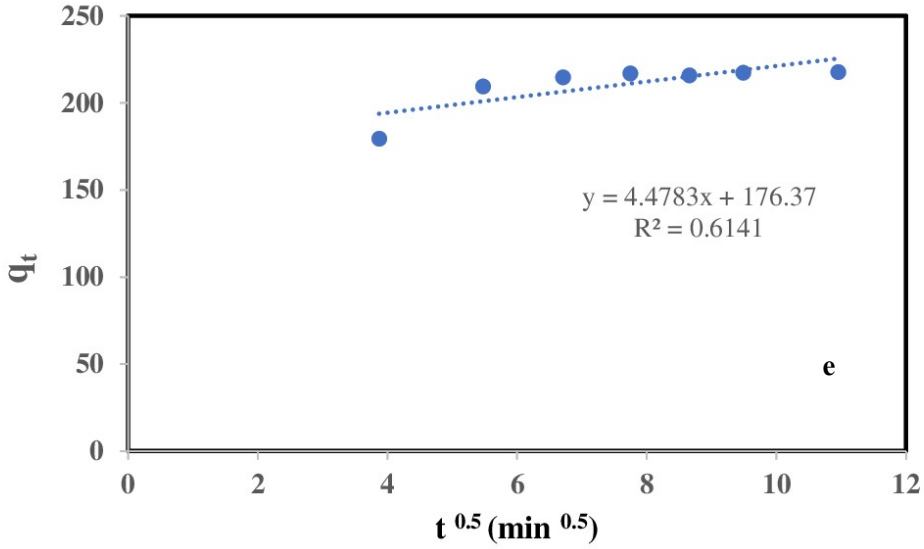
Fig. S2: Thermodynamic Model for CIP (a), TC (b)




y = 0.0045x + 0.0108
R² = 0.9996
t/qt
Time (min)
b


y = -0.0122x + 0.117
R² = 0.4718
log (qe-qt)
Time (min)
c


y = 0.0469x + 0.0887
R² = 0.9994
t/qt
Time (min)
d


y = 4.4783x + 176.37
R² = 0.6141
qt
t 0.5 (min 0.5)
e

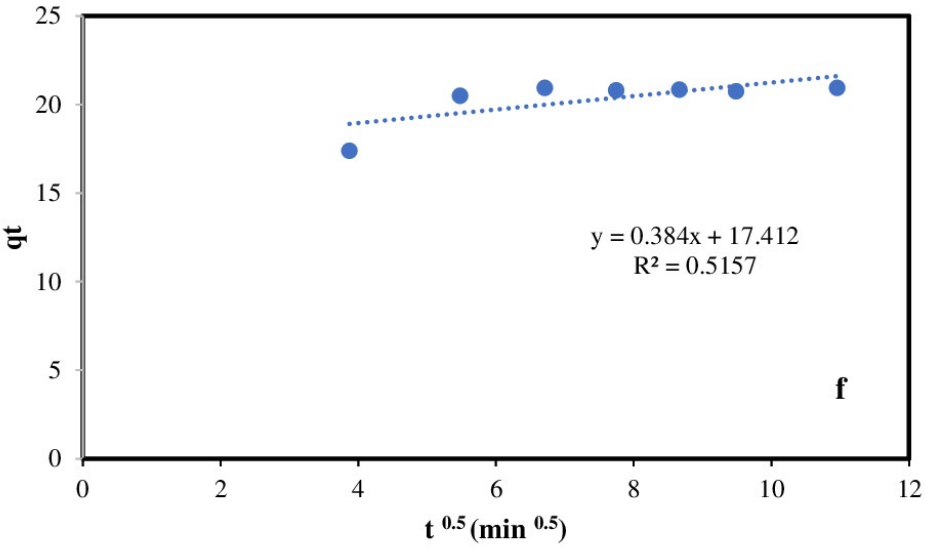


Fig. S3: Pseudo-first order Model (a), Pseudo-second order Model of CIP on F/MgO (b), Pseudo-first order Model (c), Pseudo-second order Model of TC on F/MgO (d), Intraparticle diffusion model of CIP (e), of TC (f)

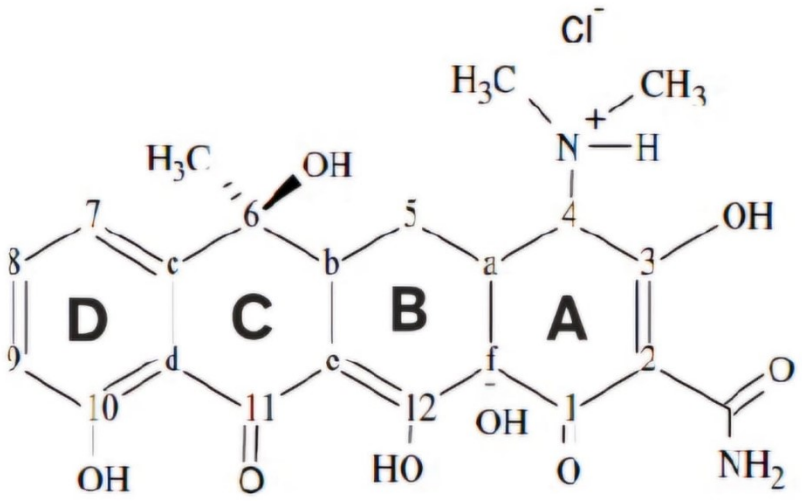


Fig. S4: Molecular Structure of Tetracycline Hydrochloride