

Supplementary Material

**Synthesis of Amorphous Carbon Functionalized Fe₃O₄
Nanoparticles as A Smart Nanosorbent for Organic Dyes
Removal**

Hoang V. Tran,^{a,*} Oanh T. K. Do,^a Nghia Duc Nguyen,^a Chinh Dang Huynh^a

^a School of Chemical Engineering, Hanoi University of Science and Technology, Hanoi, Vietnam

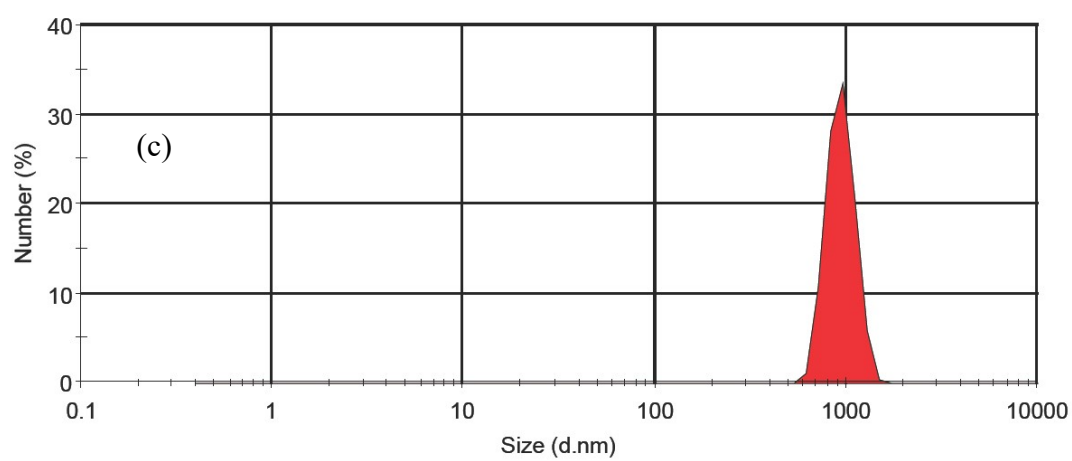
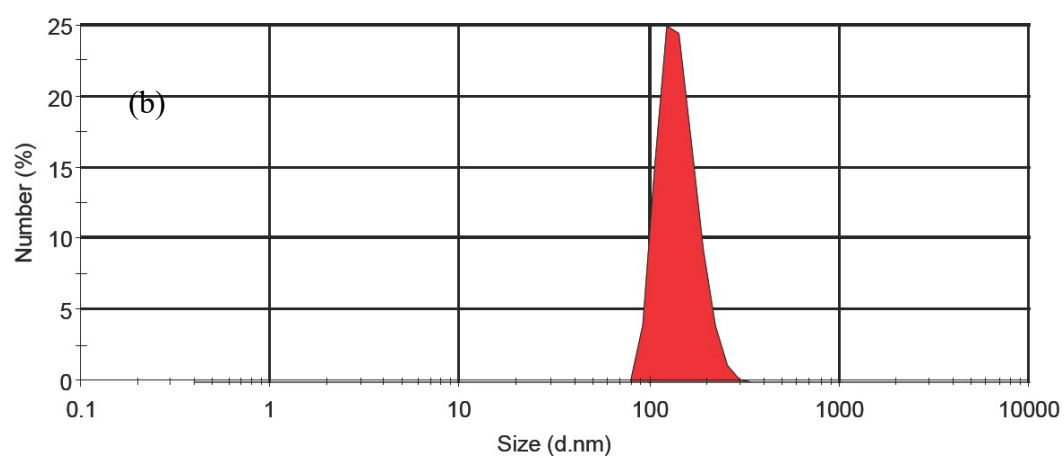
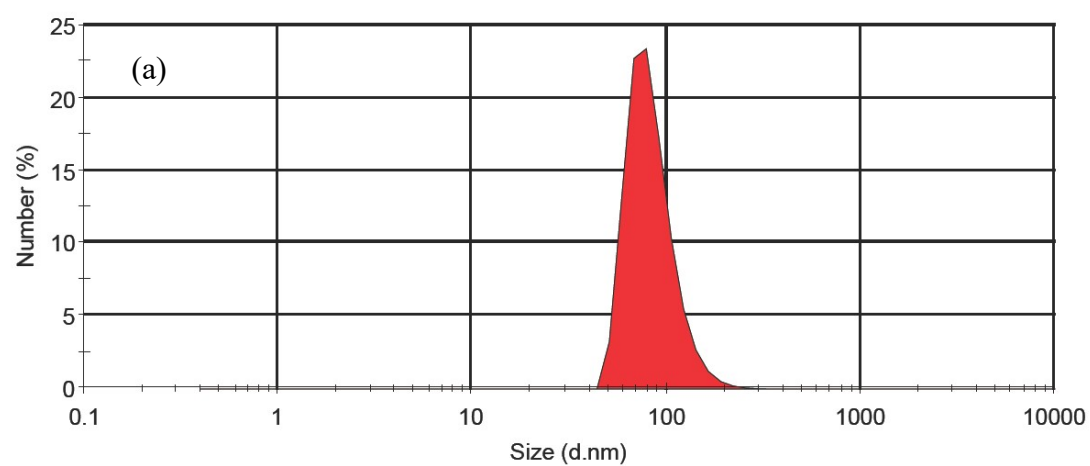


Figure SI.1. DLS of (a)CCF100, (b) CCF105 and (c) CCF110 samples

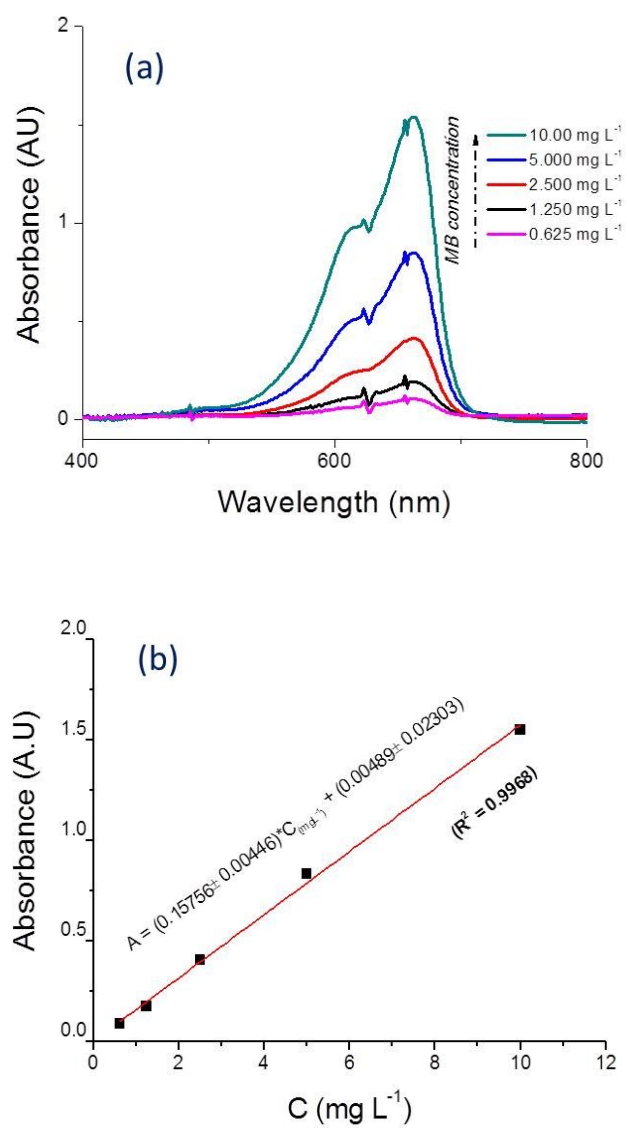


Figure SI.2. (a) UV-Vis spectra of MB solution at different concentrations, (b) calibration curve for determining MB concentration

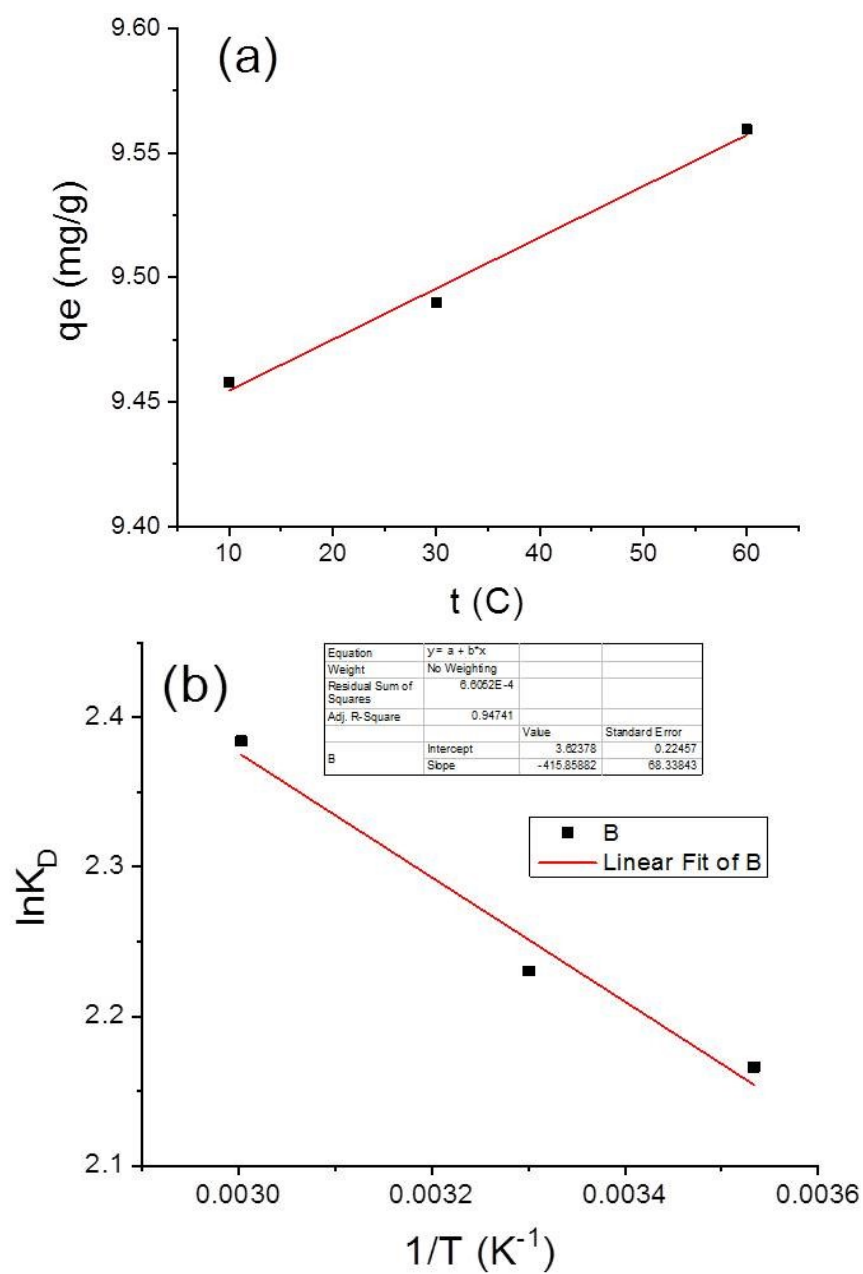


Figure SI.3. Relationship curve between (a) q_e and T , (b) $\ln K_D$ and $1/T$.

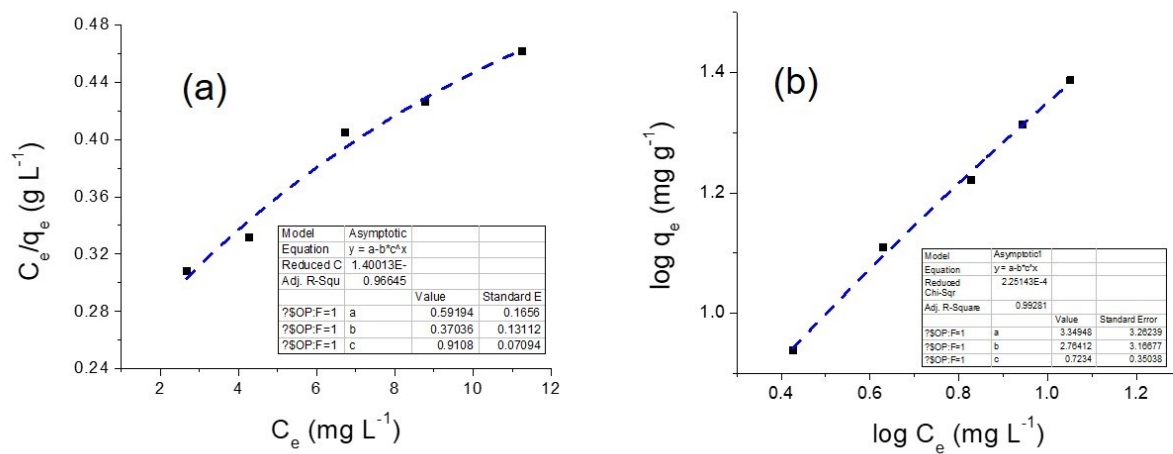


Figure SI.4. Nonlinear fit of (a) Langmuir and (b) Freundlich isotherm models of MB adsorption onto $\text{Fe}_3\text{O}_4\text{@C}$ (sample CCF102 sample) adsorbent