

## Supporting information

Adsorption of Congo red from water with spindle-like boehmite:

The role of lattice plane (020)

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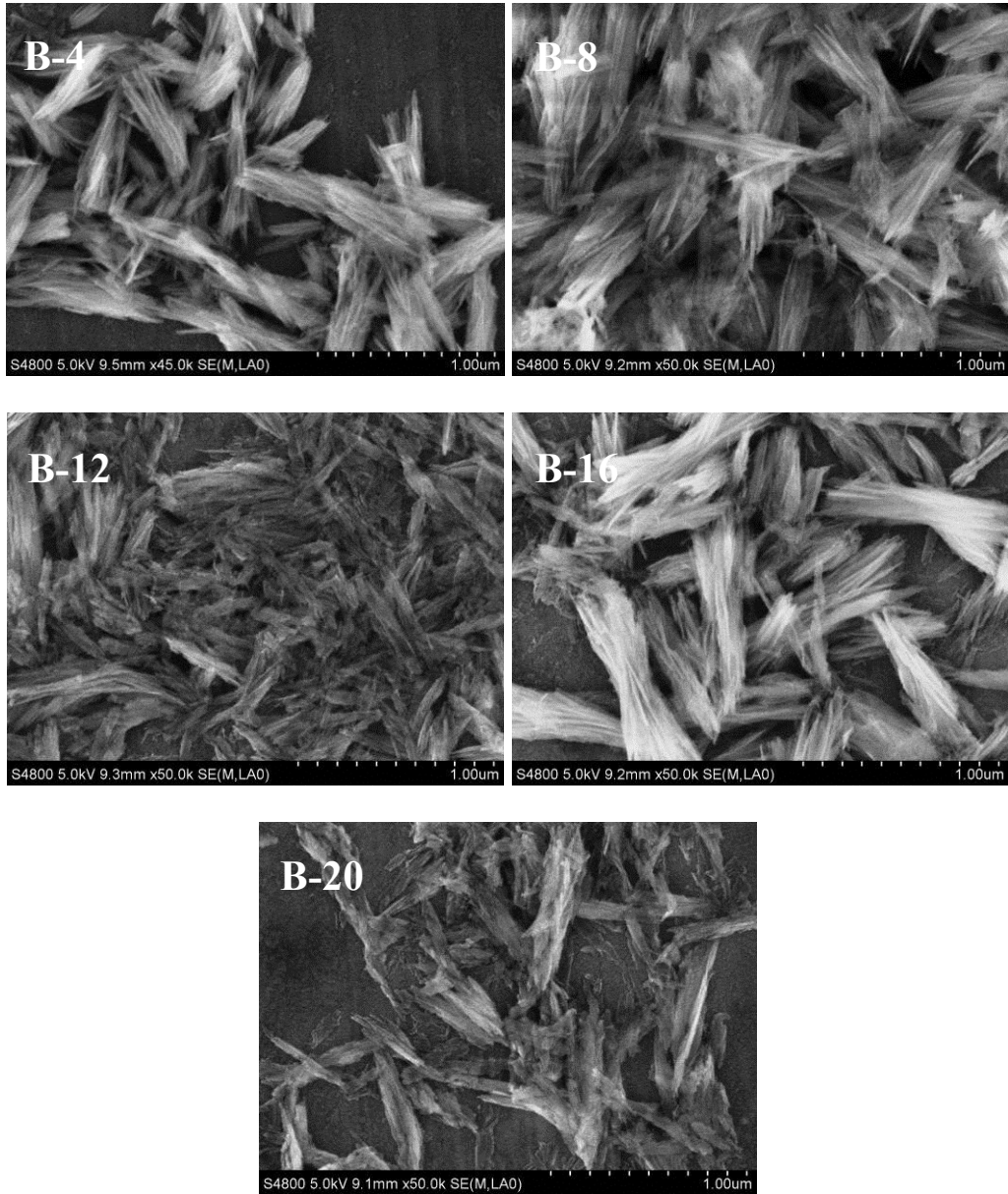
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**Fig. S1** SEM images of the hydrated samples

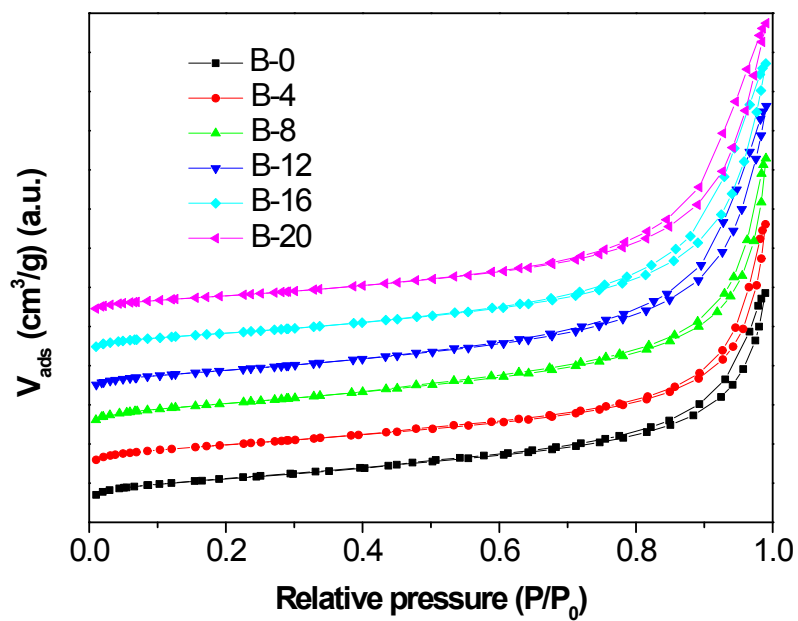


Fig. S2 N<sub>2</sub> adsorption/desorption isotherms for the different samples

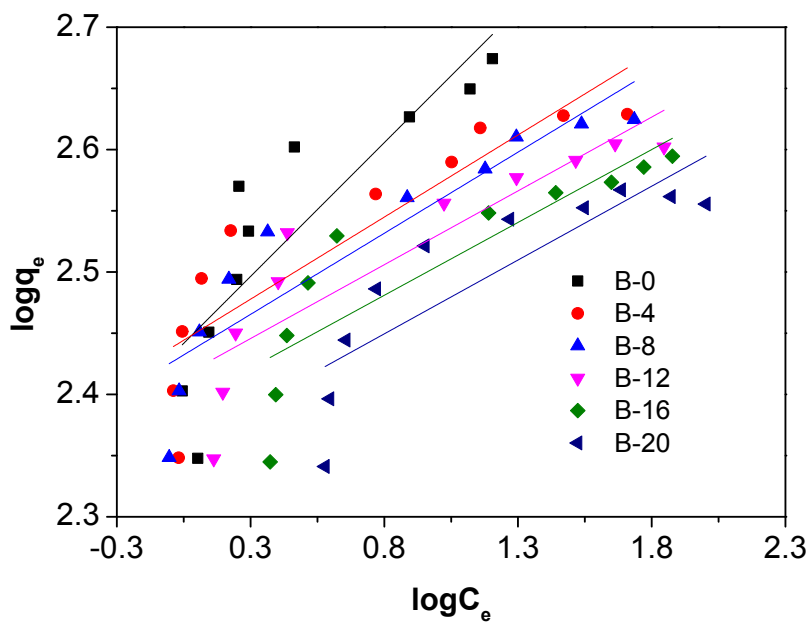


Fig. S3 Freundlich isotherms for the adsorption of CR onto sample B-0 at different temperatures

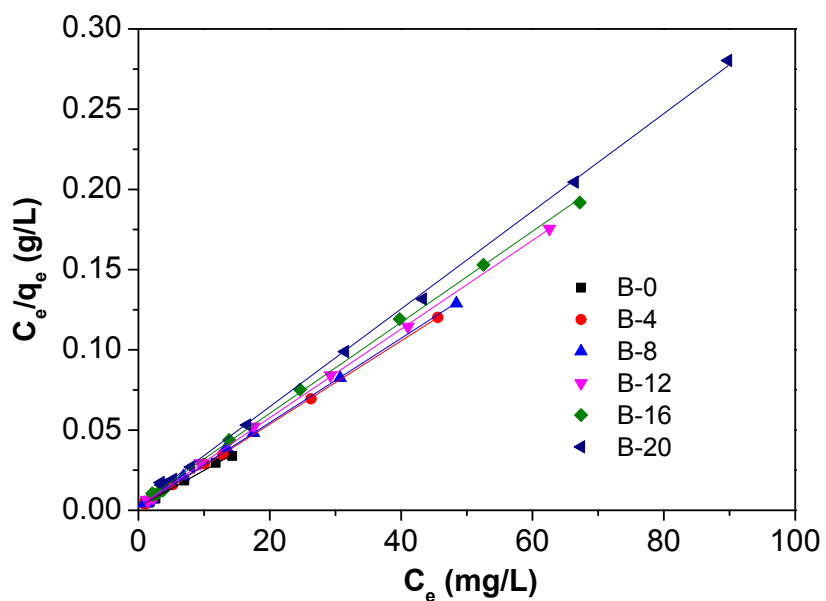


Fig. S4 Langmuir isotherms for the adsorption of CR onto different samples at 25 °C

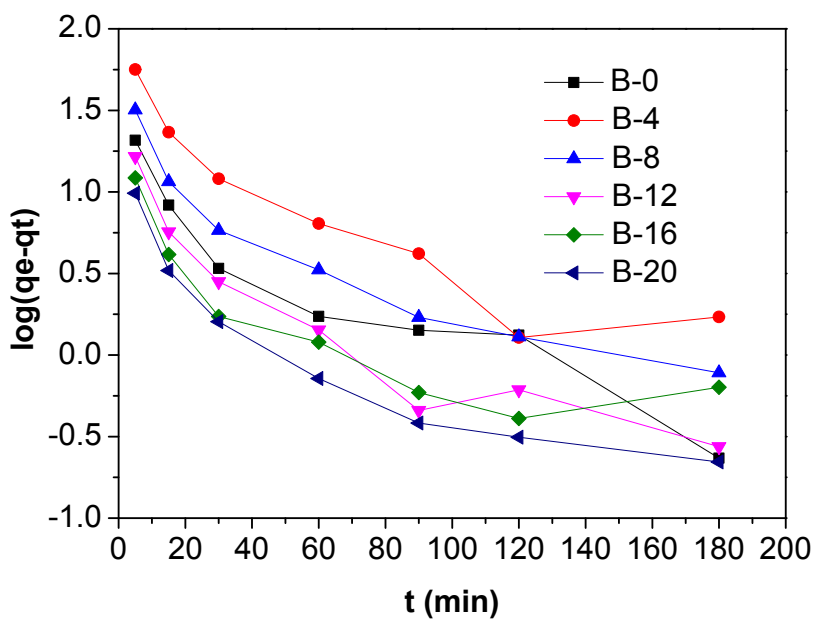
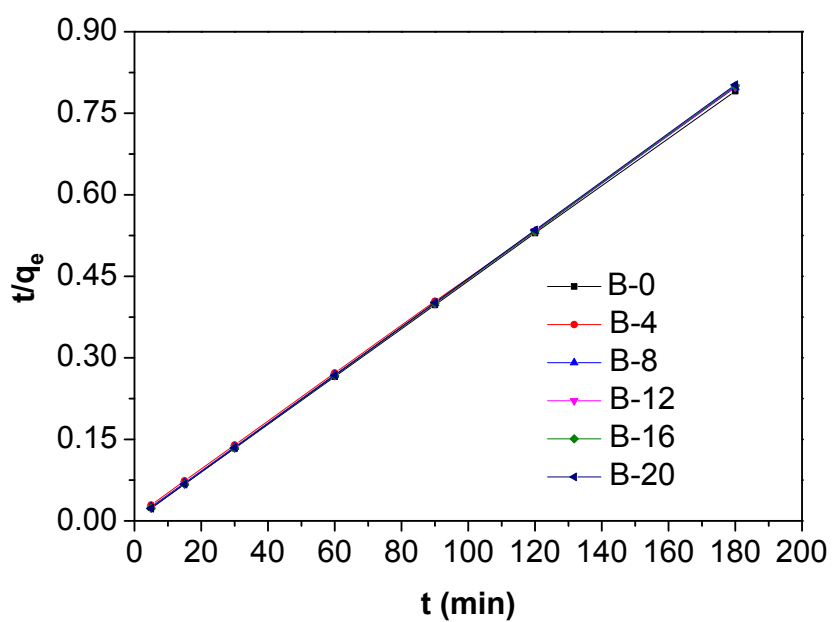
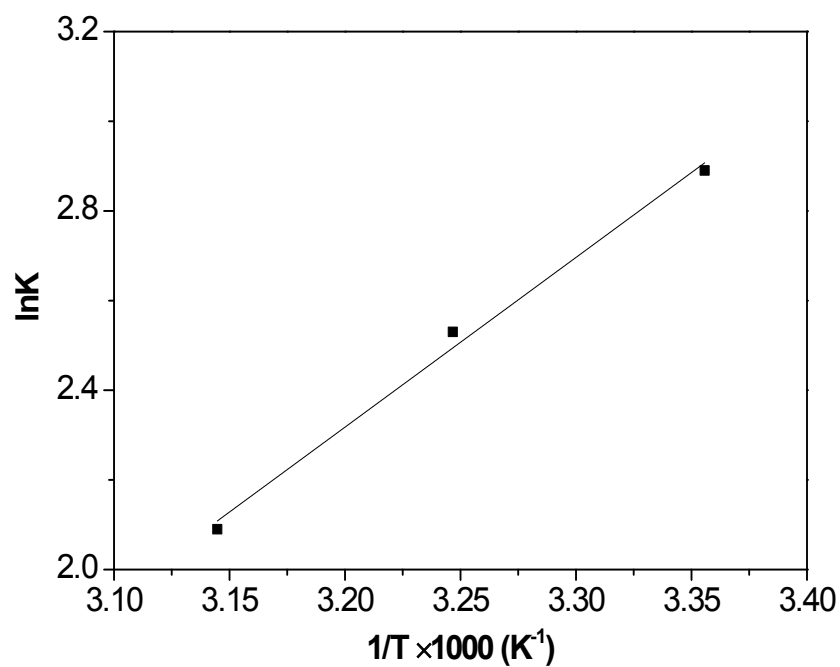


Fig. S5 Pseudo-first-order kinetics for the adsorption of CR onto different samples at 25 °C



**Fig. S6** Pseudo-second-order kinetics for the adsorption of CR onto different samples at 25 °C



**Fig. S7** Plot of lnK versus 1/T for estimation of thermodynamic parameters for B-0