

Article

Functional Chitosan Derivative and Chitin as Decolorization Materials for Methylene Blue and Methyl Orange from Aqueous Solution

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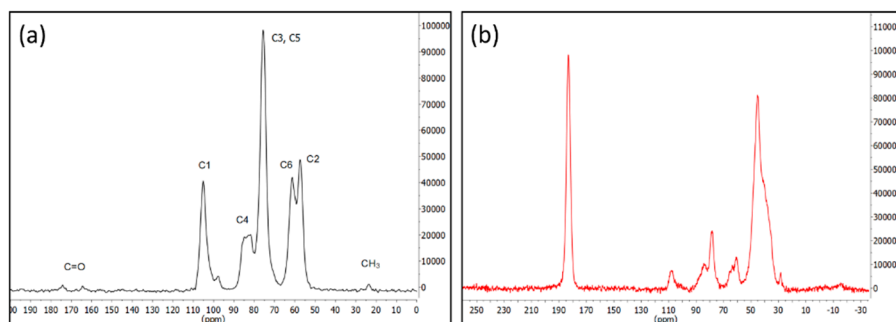


Figure S1. ¹³C NMR spectra of chitosan (a) and chitosan-g-polyacrylamide (CS-g-PAM) (b).

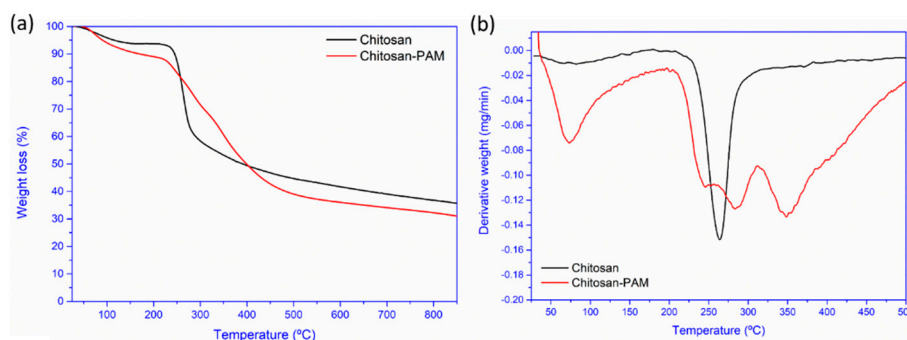


Figure S2. TGA (a) and DTG (b) spectra of chitosan and chitosan-g-polyacrylamide (CS-g-PAM).

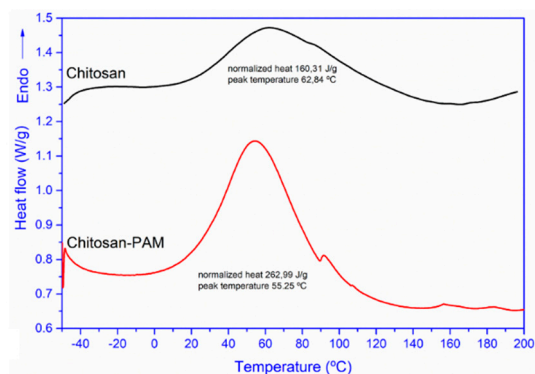


Figure S3. DSC spectra of chitosan and chitosan-g-polyacrylamide (CS-g-PAM).

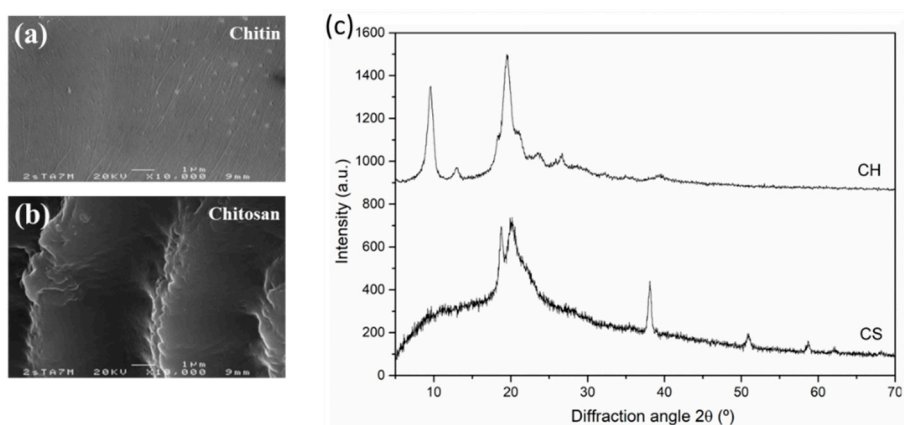


Figure S4. SEM micrographs of chitin (a) and chitosan (b); XRD of chitin and chitosan (c).

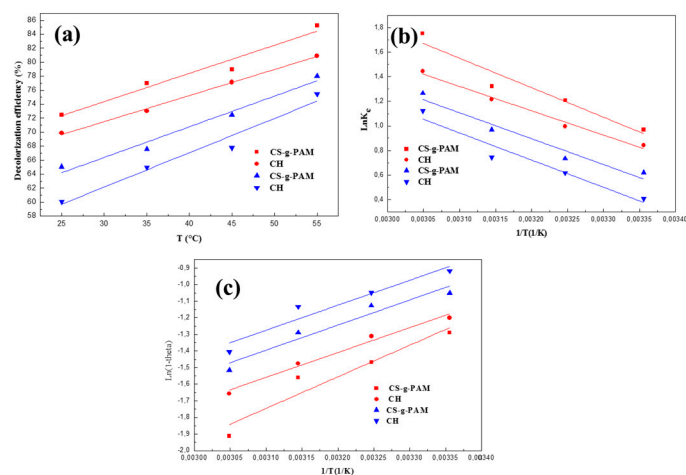


Figure S5. Arrhenius plot of LnK_c versus $\frac{1}{T}$ for the decolorization of MB and MO by CS-g-PAM and CH: initial MB and MO concentration: 5.0 mg/mL; CS-g-PAM and CH concentration: 0.3 g·10mL⁻¹ (a); plot of $ln(1 - \theta)$ versus $\frac{1}{T}$ for the decolorization of dyes solution: initial MB, MO concentration: 10 mg/L; CS-g-PAM and CH concentration: 0.3 g·10mL⁻¹ at 25 °C (b).