

## Supporting Information

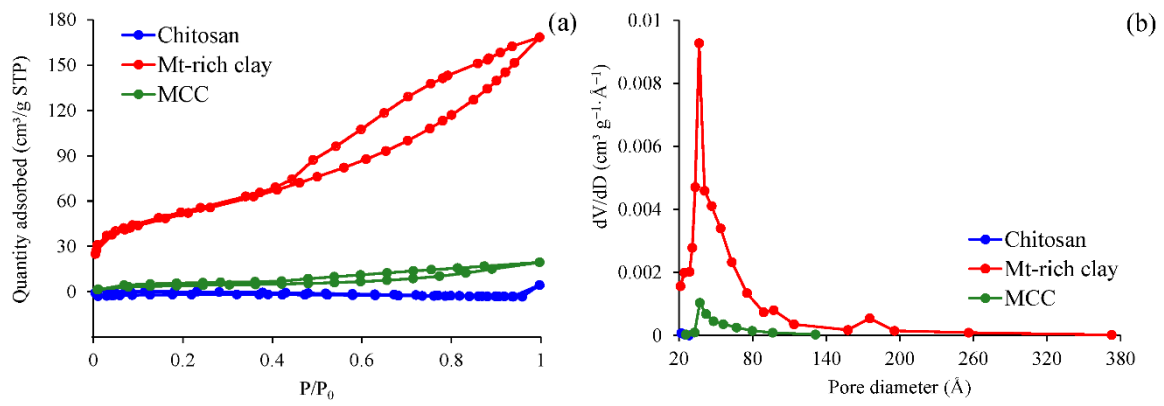
# Dual Functional Composite of Montmorillonite-rich/Chitosan (MCC) for Decolorizing the Water Used in Joss Paper Process: Thermodynamic, Isotherm, and Kinetic Studies

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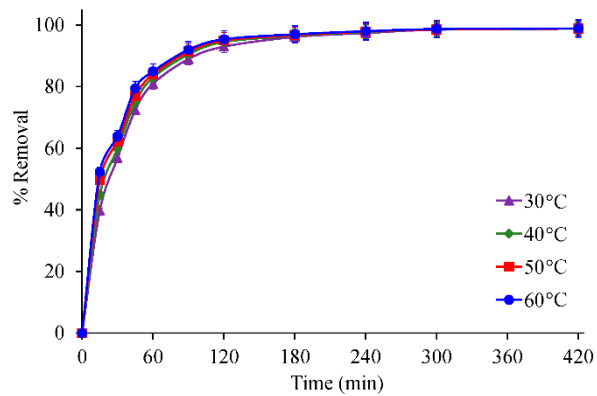
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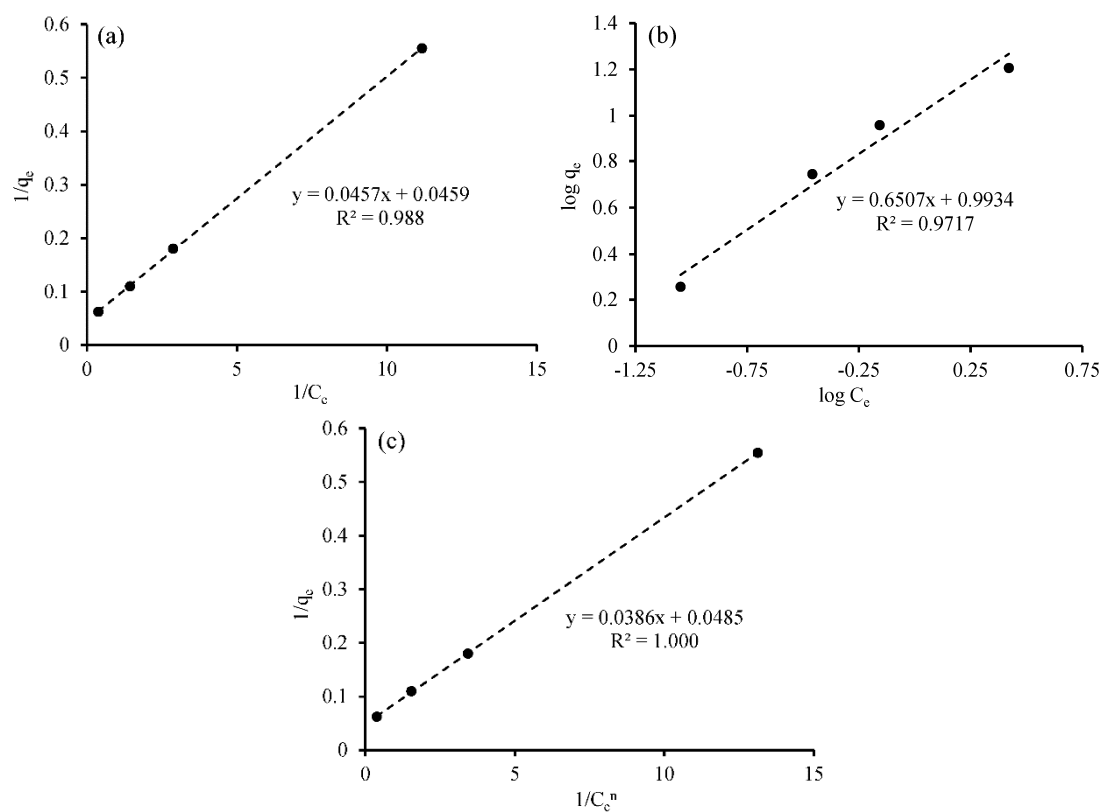
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**Figure S1.** (a) N<sub>2</sub> adsorption/desorption isotherms and (b) pore size distribution of the adsorbents.



**Figure S2.** The effect of the temperature on the dye removal with time (dosage level of 0.6 g, initial dye concentration of 100 mg L<sup>-1</sup> and pH 5.5).



**Figure S3.** Adsorption isotherms on the MCC :(a) Langmuir model; (b) Freundlich model and (c) Koble–Corrigan model (dosage level of 0.6 g, pH 5.5 and adsorption temperature of 30 °C).

**Table S1.** Comparison with other relevant adsorbents.

Adsorbent type	Dyes	Adsorption conditions			Regeneration method	Adsorption capacity (mg g <sup>-1</sup> )	Reference
		pH	T (°C)	Cycles			
CSA	Acid Black-172	3	25	5	NaOH/HCl	350.0	[1]
3D GO/HCS	Reactive Black-5	7	30	5	NaOH/HCl	296.7	[2]
benzodiazimidazole	Methyl Orange	3	25	5	NaBr	256.0	[3]
COF							
Eggshell/ <i>Plantago psyllium</i> bio-composite	Methyl Orange	3	30	4	Reuse without washing	3.25 <sup>1</sup>	[4]
Sn(II)-BDC MOF	Congo Red	6	25	3	NaOH	95.2	[5]
MCC	Reactive Red-120	5.5	30	8	Reuse without washing	1,330 <sup>1</sup>	This work

<sup>1</sup> accumulated adsorption capacity since the adsorbent was reused without regeneration process.

## References

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