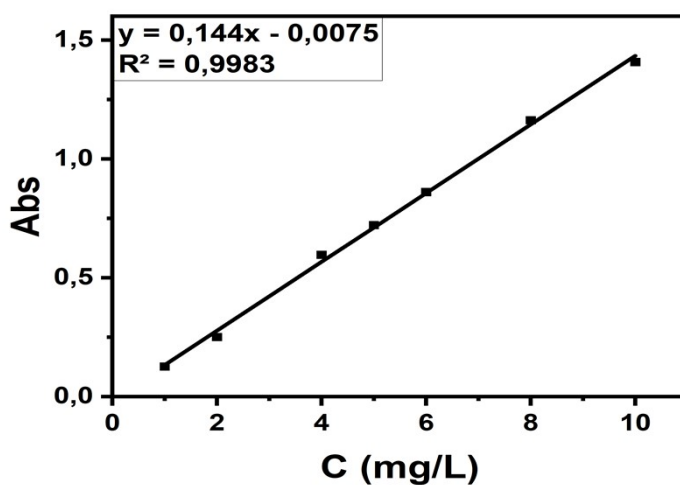
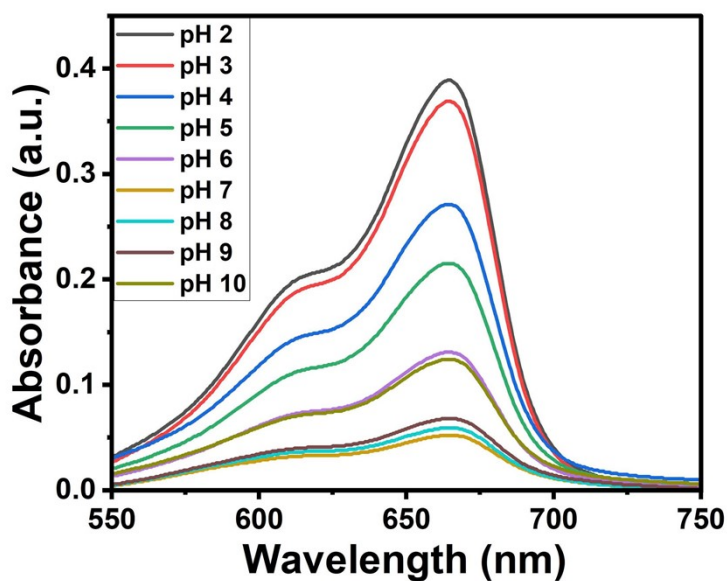


## Supplementary Information

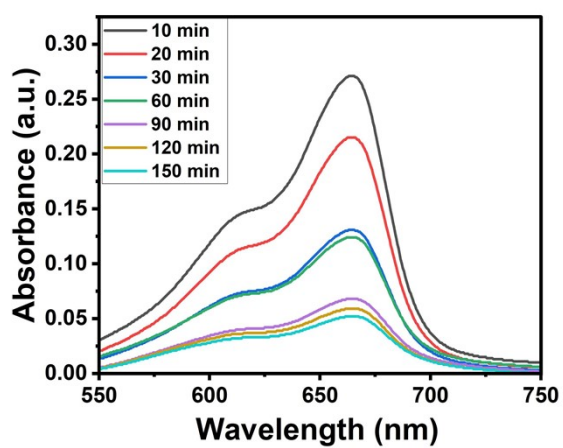
**Title: Hierarchically porous activated carbon derived from *Lansium domesticum* peel via hydrothermal–H<sub>3</sub>PO<sub>4</sub> activation for enhanced methylene blue removal: adsorption behavior, advanced modeling and mechanistic insights**



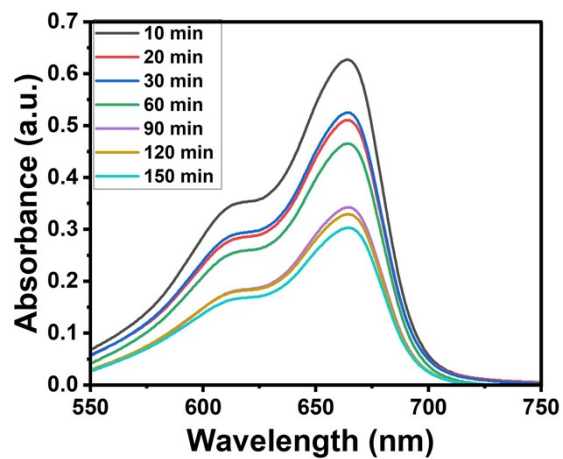
**Figure S1.** Calibration curve for the determination of methylene blue (MB) concentration.



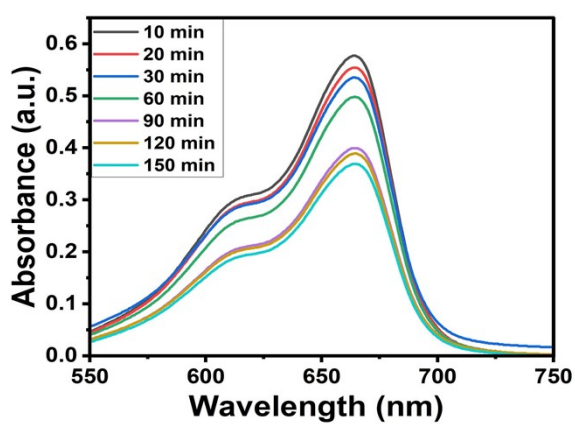
**Figure S2.** Effect of pH on the adsorption capacity.



(a)



(b)



(c)

**Figure S3.** Effect of contact time on adsorption capacity at initial concentrations of 58.51 mg/L (a), 87.76 mg/L (b), and 117.01 mg/L (c).

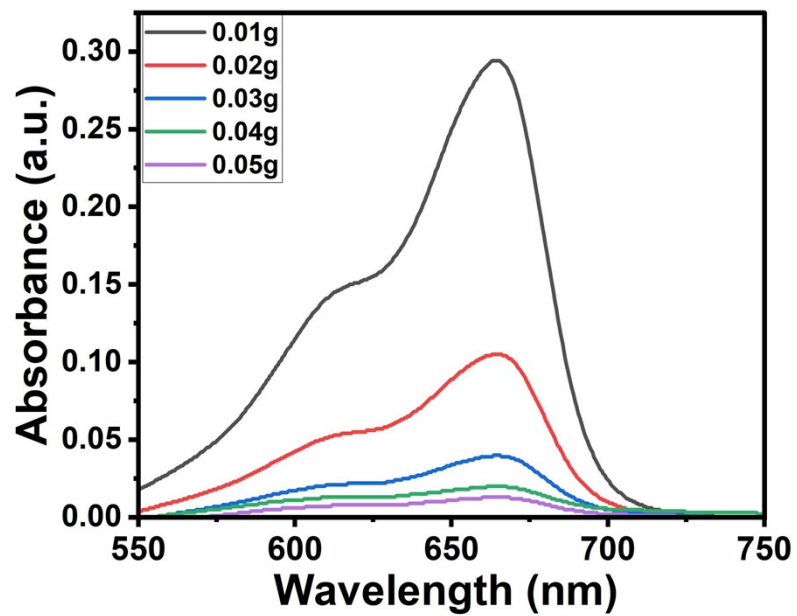
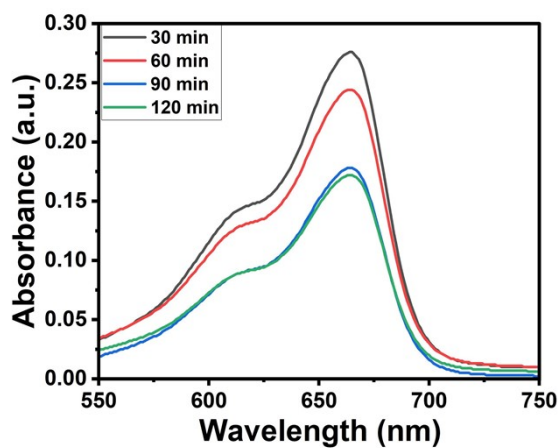
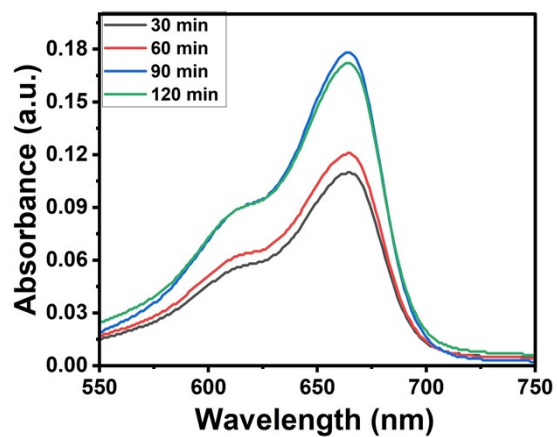


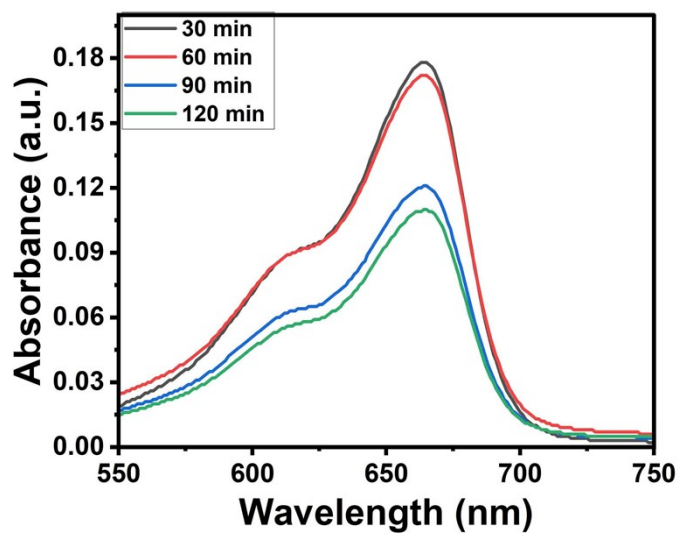
Figure S4. Effect of adsorbent dosage on adsorption capacity.



(a)



(b)



(c)

**Figure S5.** Effect of temperature on adsorption capacity at 303 K (a), 313 K (b), and 323 K (c).

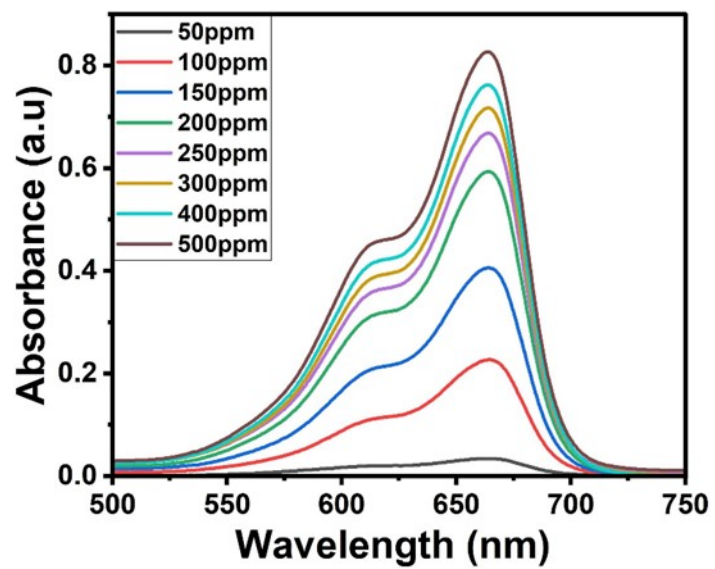


Figure S6. Effect of initial concentration on adsorption capacity.