

Electronic Supplementary Information

Novel approach for effective removal of methylene blue dye from water using fava bean peel waste

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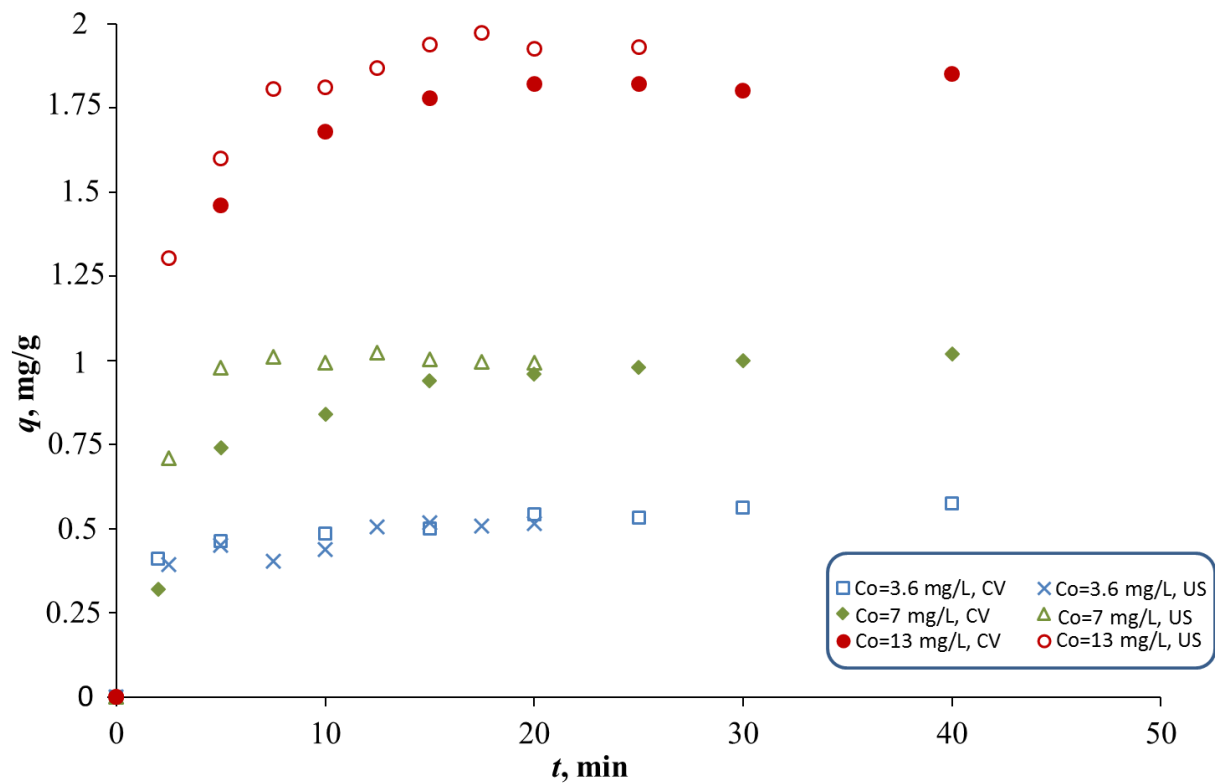


Fig. S1 Uptake profiles for the CV versus the US biosorption of MB onto FBP. Sorption conditions are 5 g/L adsorbent dose and pH 5.8 at low-range of initial concentrations.

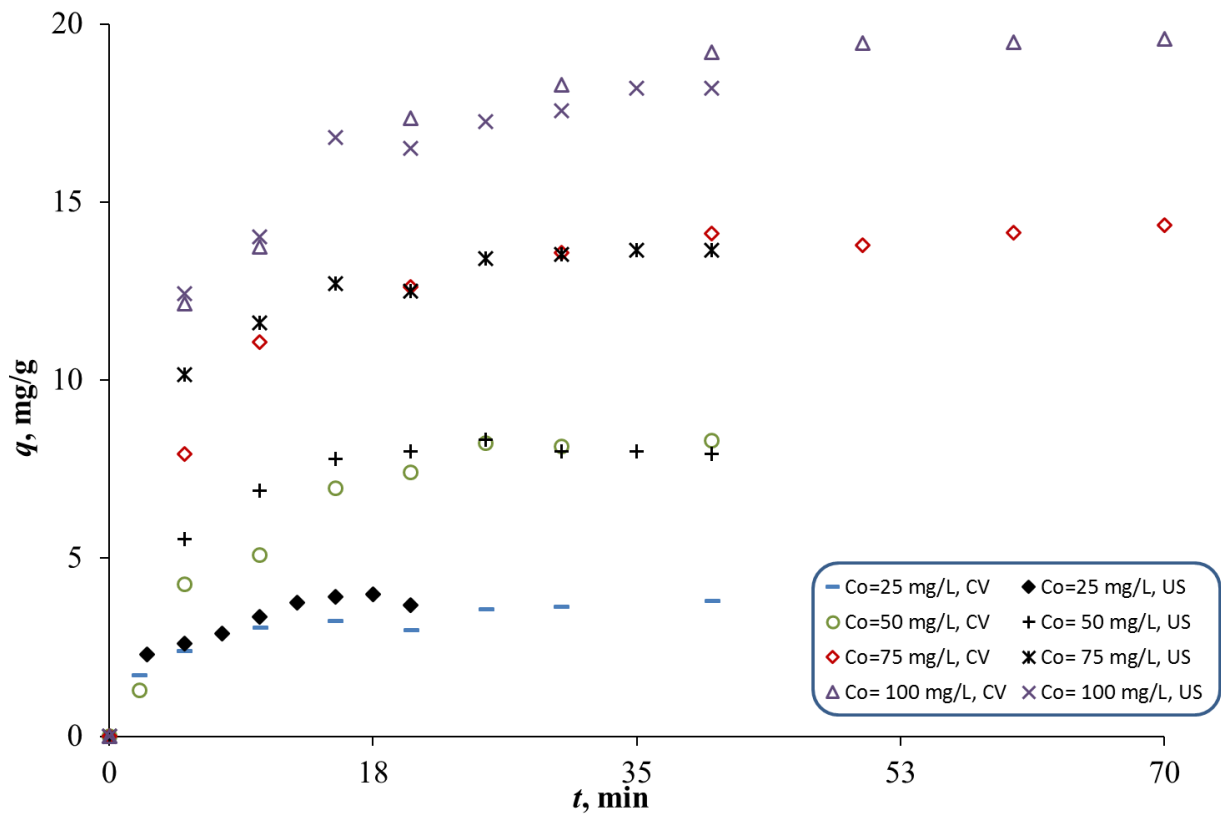


Fig. S2 Uptake profiles for the CV versus the US biosorption of MB onto FBP. Sorption conditions are 5 g/L adsorbent dose and pH 5.8 at high-range of initial concentrations.

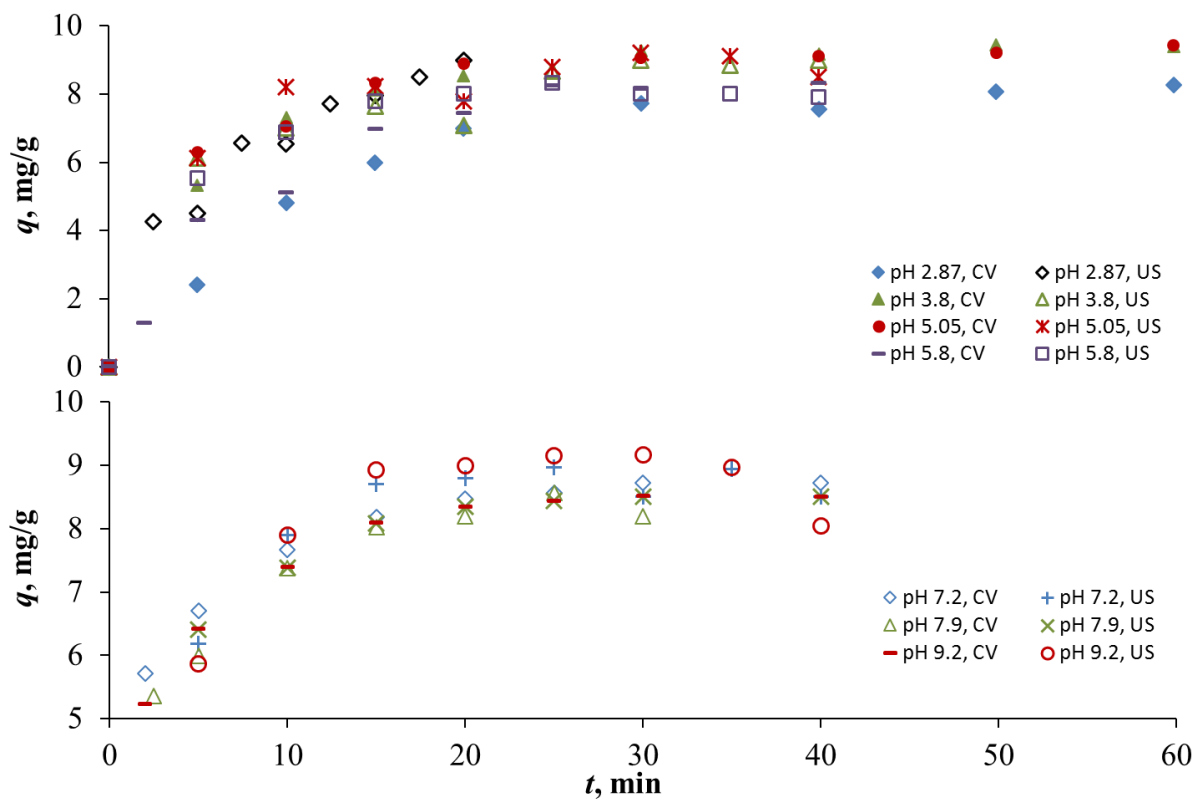


Fig. S3 Uptake profiles for the CV versus the US biosorption of MB onto FBP. Sorption conditions are 5 g/L adsorbent dose and 50 mg/L initial concentration at different acidic (top panel) and basic (bottom panel) pH values.

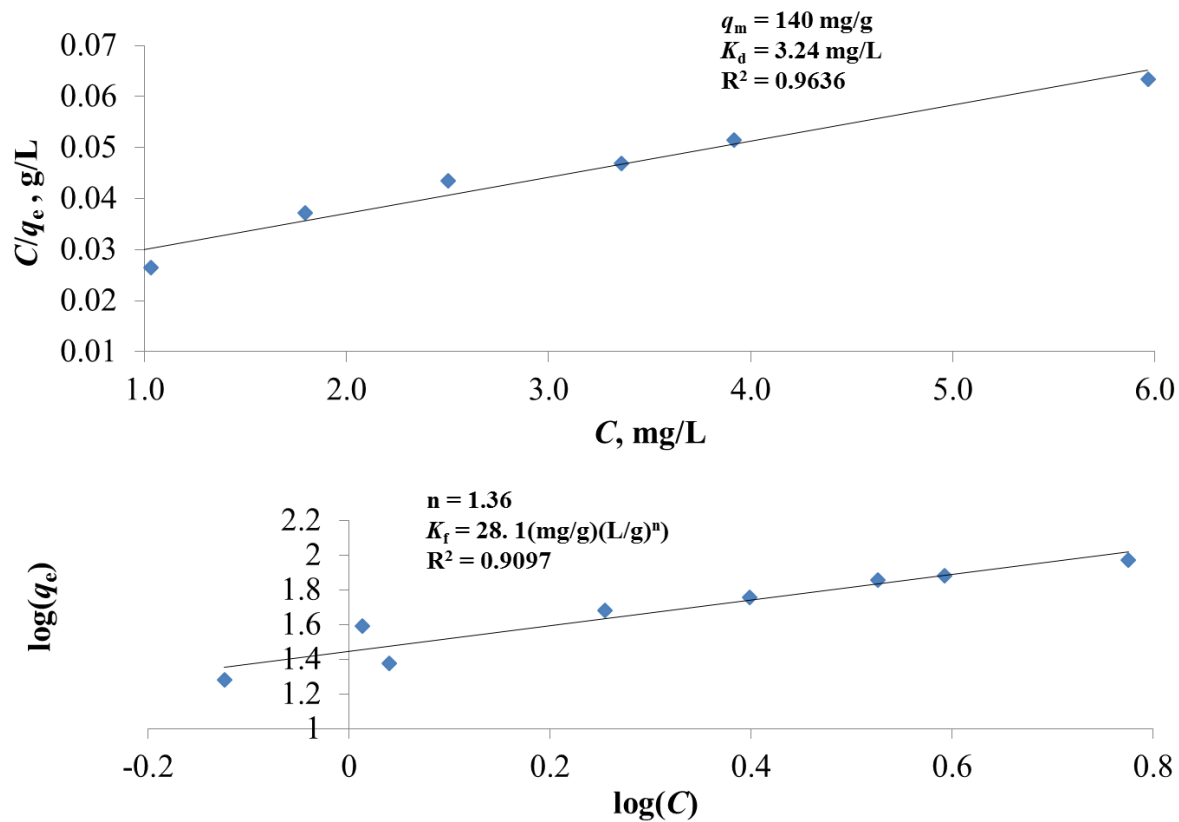


Fig. S4 Linear plots of Langmuir (top panel) and Freundlich (bottom panel) isotherms for the biosorption of MB onto FBP at room temperature (27 ± 2 °C) and pH 5.8.

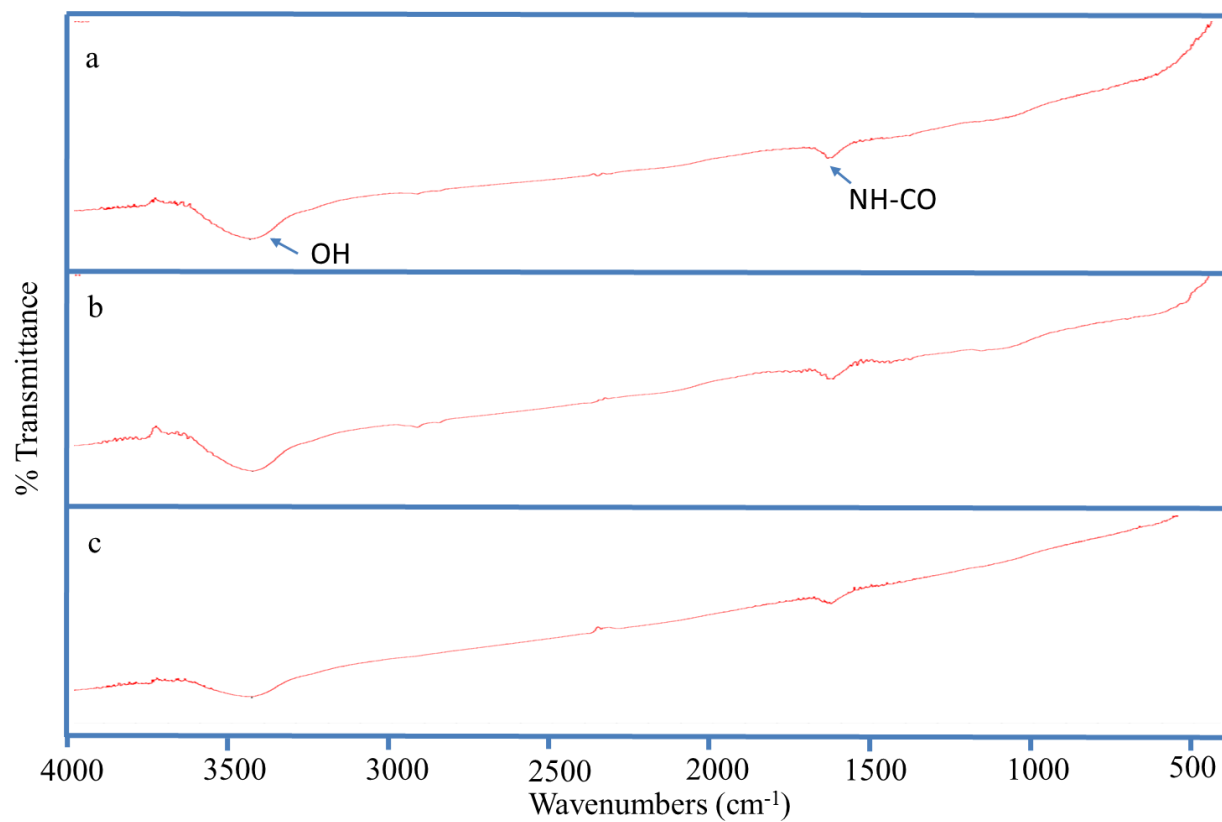


Fig. S5 FTIR spectra for FBP before (panel a) and after CV (panel b) and US (panel c) biosorption.

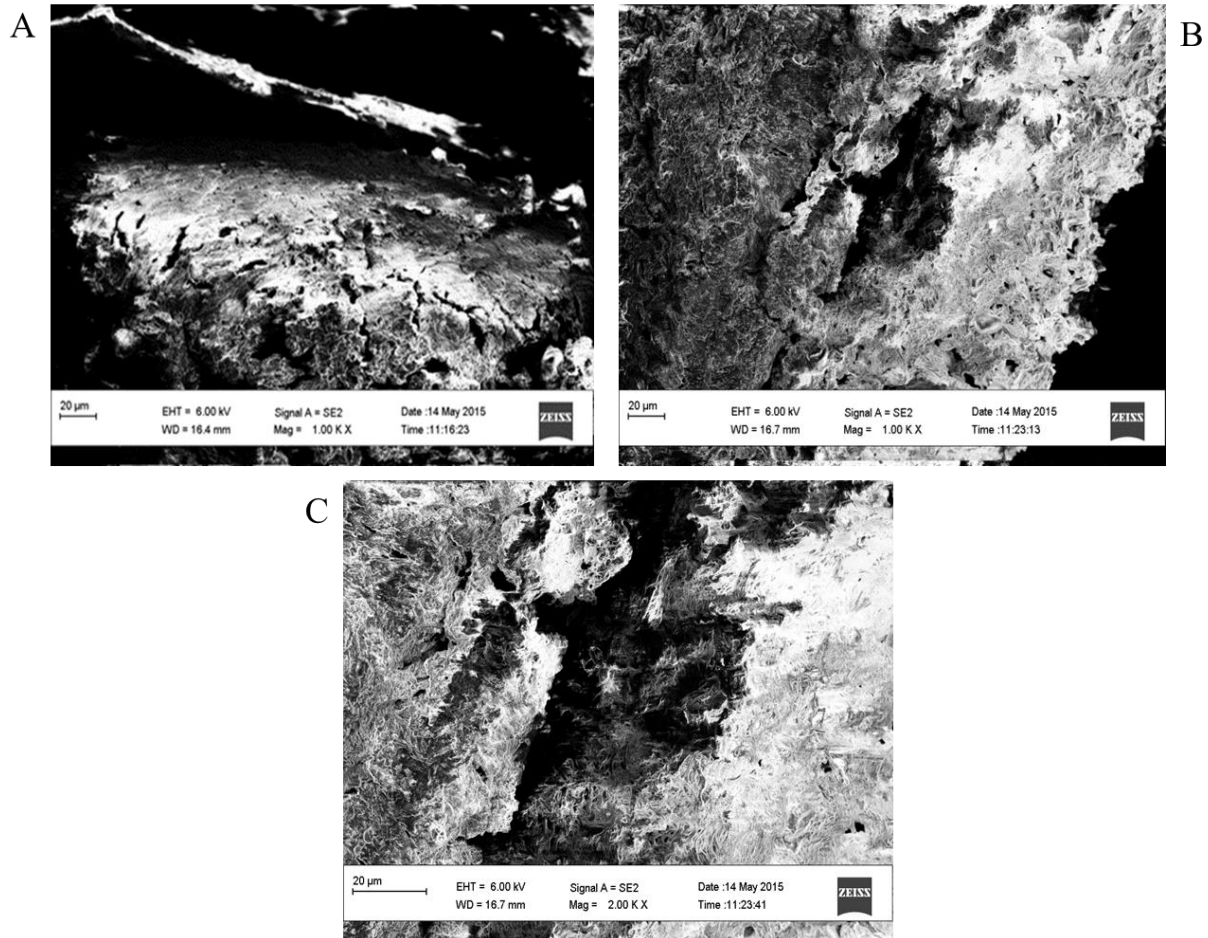


Figure S6 SEM images for FBP before (panel A) and after CV (panel B) and US (panel C) biosorption.

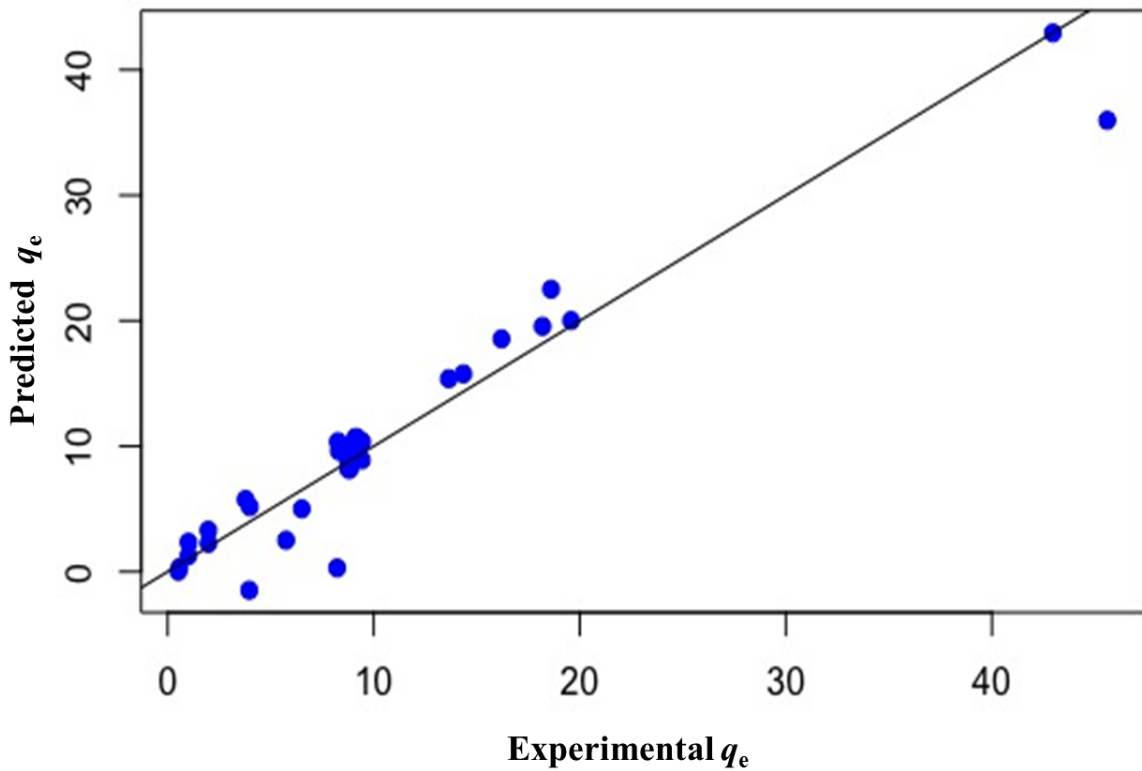


Figure S7 The q_e values as predicted by the linear multiple regression statistical model versus their experimental counterparts.