

Electronic Supplementary Information

Bionanocomposites based on layered silicates and cationic starch as eco-friendly adsorbents for hexavalent chromium removal

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Fig. S1 FESEM images of the starting clays CL and Bnt and the bionanocomposites derived from these clays and cationic starch with degree of substitution 0.85 (CST1) and 0.55 (CST2)

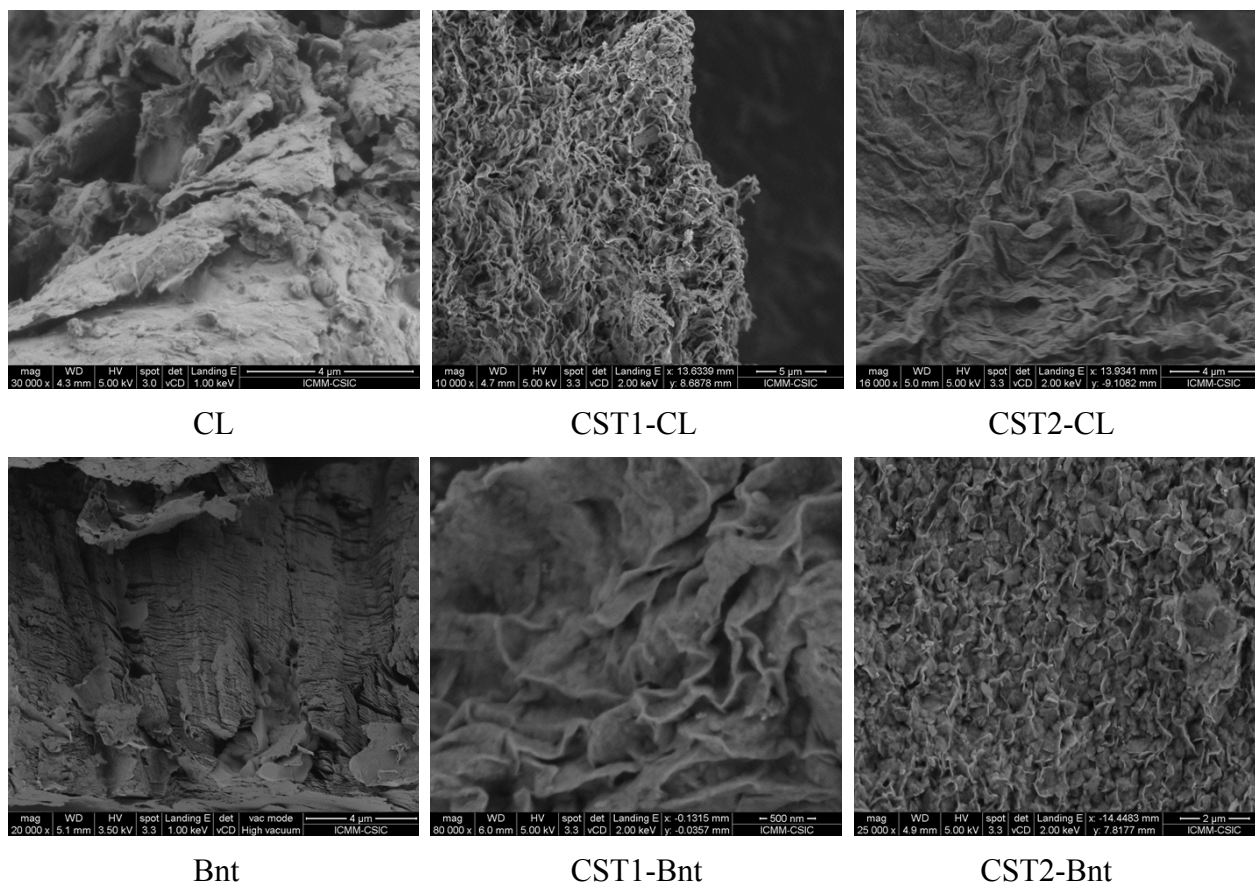


Fig. S2 EDX spectra of CST1/CL bionanocomposite (a) before and (b) after adsorption of chromate oxyanions:

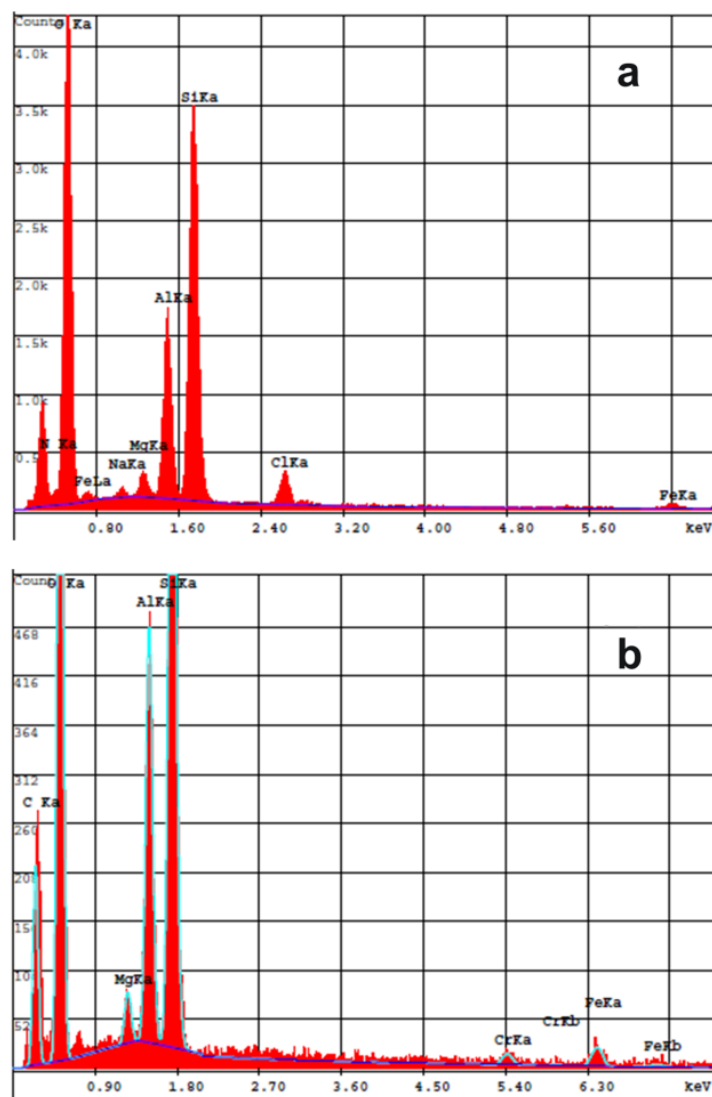


Fig. S3 Fitting of kinetics data for chromate adsorption by the CST/clay bionanocomposites to the linear forms of (a) the pseudo-first order model and (b) the pseudo-second order model:

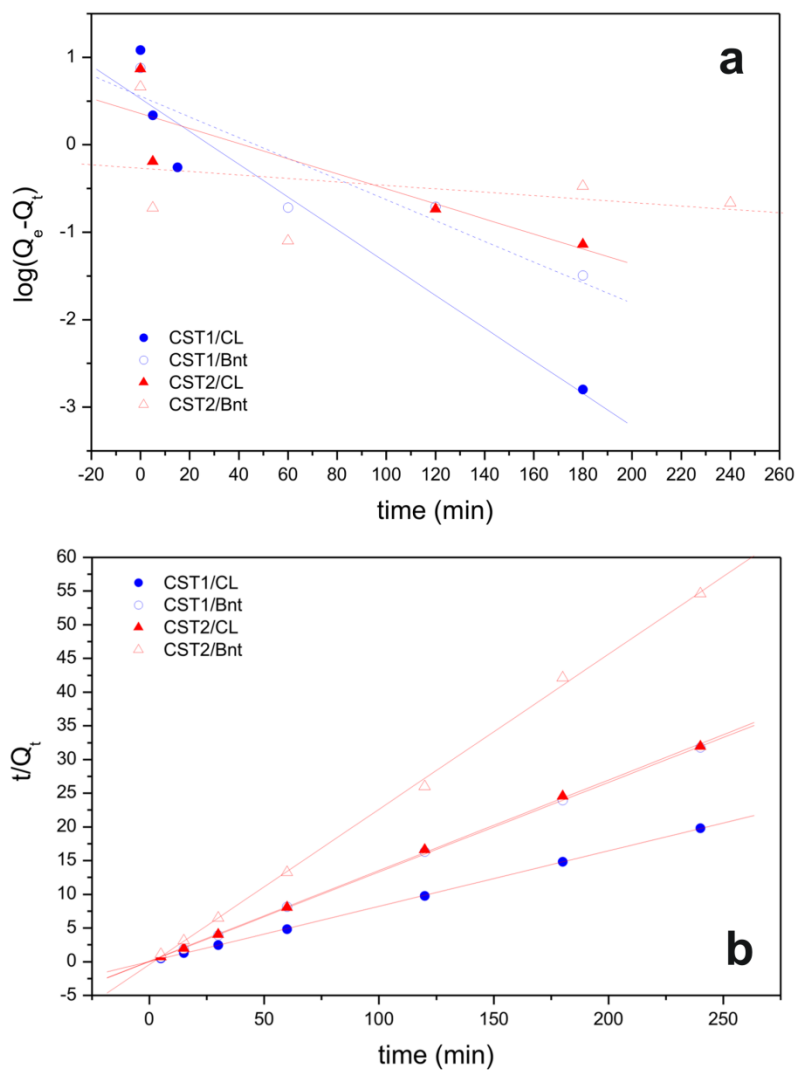


Fig. S4 Mole fraction of Cr(VI) species as a function of pH for a total concentration of 0.38 mM, determined from the MEDUSA software for chemical equilibrium diagrams:

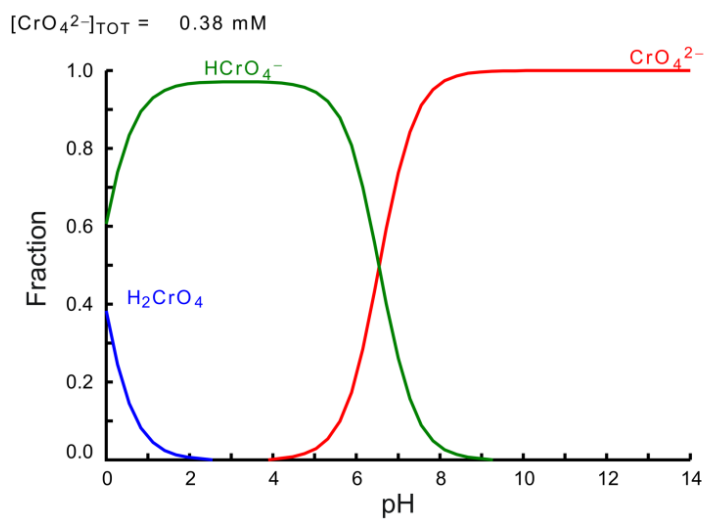


Fig. S5 Mole fraction of phosphoric acid species as a function of pH for a total concentration of 0.38 mM, determined from the MEDUSA software for chemical equilibrium diagrams. The dotted line indicates the fraction of each species at pH 7.5:

