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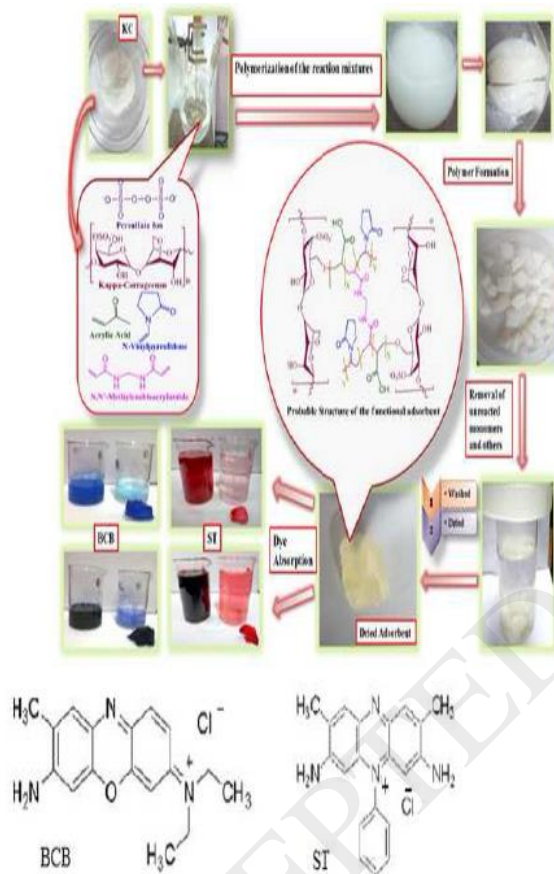
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Efficient removal of cationic dye mixtures from water using a bio-composite adsorbent optimized with response surface methodology

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Graphical abstract



Research highlights

- • Composite adsorbents were made from poly (NVP-co-AA) and kappa-carrageenan.
- • The polymer was characterized by FTIR, NMR, XPS, BET, DMA, SEM, DTA-TGA, XRD and PZC
- • . Synthesis & process parameters were optimized with CCD of RSM
- • Competitive adsorption of ST+BCB cationic dye were studied with this adsorbent.
- • The adsorbent showed high adsorption capacity & excellent reusability.

Abstract

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