

ADSORPSI RHODAMIN B DENGAN ADSORBEN KITOSAN SERBUK DAN BEADS KITOSAN

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Abstract	Chitosan is a biopolymer that has adsorption ability toward dye substances due to its amino and hydroxyl functional groups. This study aimed to synthesize chitosan and chitosan beads from jerbung shrimp shell, and to test their adsorption ability on rhodamine B dye. The chitosan and chitosan beads product of the synthesis were characterized using Fourier Transform Infra-Red Spectrophotometer (FTIR) as well as the determination of water content, ash content, and swelling effect. The adsorption ability of chitosan and chitosan beads on rhodamine B was tested using the parameters of maximum wavelength as well as the effect of variation of pH and contact time. The results of the study showed that the synthesis gave result to chitosan and chitosan beads with water content of 4.45% and 6.84%, ash content of 0.1% and 2.83%, and the swelling effect of 143.43 and 94.05%, respectively. Chitosan and chitosan beads adsorb rhodamine B optimally at pH 4 and 3 with a contact time of 120 and 180 minutes, respectively at a maximum wavelength of 554.2 nm.
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