Studi selektivitas reaksi antara kitosan dan anhidrida suksinat = Study the reaction of selectivity between chitosan and succinic anhydride

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Abstrak

Kitosan adalah salah satu contoh polimer yang memiliki bobot molekul besar dengan gugus amina dan gugus hidroksil, yang merupakan gugus reaktif. Gugus hidroksil ini terikat secara primer pada atom karbon nomor 6 dan secara sekunder terikat pada atom karbon nomor 3 sehingga dapat dimanfaatkan dalam proses modifikasi. Pada penelitian ini, kitosan direaksikan dengan anhidrida suksinat untuk dilihat selektivitasnya terhadap gugus-gugus reaktif tersebut, dengan memvariasikan massa anhidrida suksinat dan suhu reaksi. Hasil sintesis ini dikarakterisasi menggunakan FTIR (Fourier Transform Infra Red) dan 1H-NMR (Nuclear Magnetic Resonance). Analisis menggunakan FTIR pada perbandingan massa kitosan dengan suksinat 1 : 0,2 g hanya menunjukkan puncak serapan karbonil amida pada bilangan gelombang 1681 cm-1 dan hasil karakterisasi menggunakan 1H-NMR menunjukkan puncak pergeseran kimia pada rentang 2,5ppm-2,7ppm. Hasil analisis keduanya mengindikasikan anhidrida suksinat bereaksi dengan gugus amina. Pada perbandingan inilah reaksi kitosan dengan anhidrida suksinat selektif pada gugus amina.

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