

Figure S1. The dependence of the dynamic viscosity of chitosan solutions on the concentration. Viscosity measured after preparation of solutions after 2 hours and after 24 hours. The Crossover point which separates section I of a weak dependence of viscosity on concentration from section II that is characterized by a smooth increase in viscosity in the region of 1.5-2.5 wt% due to structuring of solutions when the polymer macromolecules begin to associate.

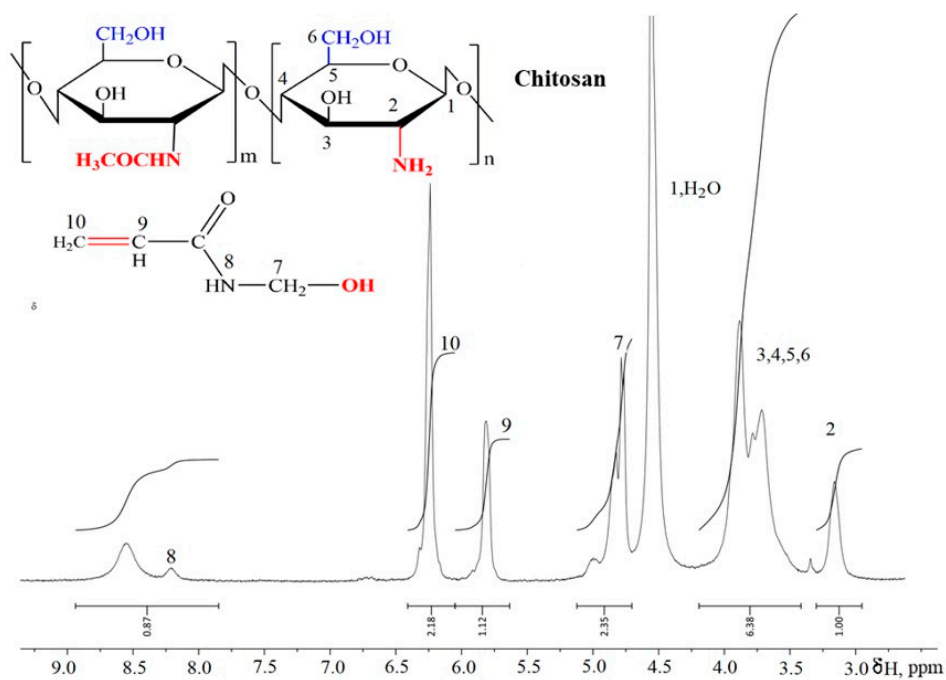


Figure S2. NMR spectrum of the freshly prepared solution of NMA and chitosan. The spectrum shows absorption bands characteristic of chitosan and NMA — $\delta = 4.5$ and 4.8 ppm ($1H$, $H-C^1$), related to acylated and deacylated units, respectively; 3.1 ($1H$, $H-C^2$); 3.5 - 4.0 ($5H$, $H-C^{3,4,5,6}$) ppm. The bands corresponding to the products were not detected, indicating the absence of interaction.

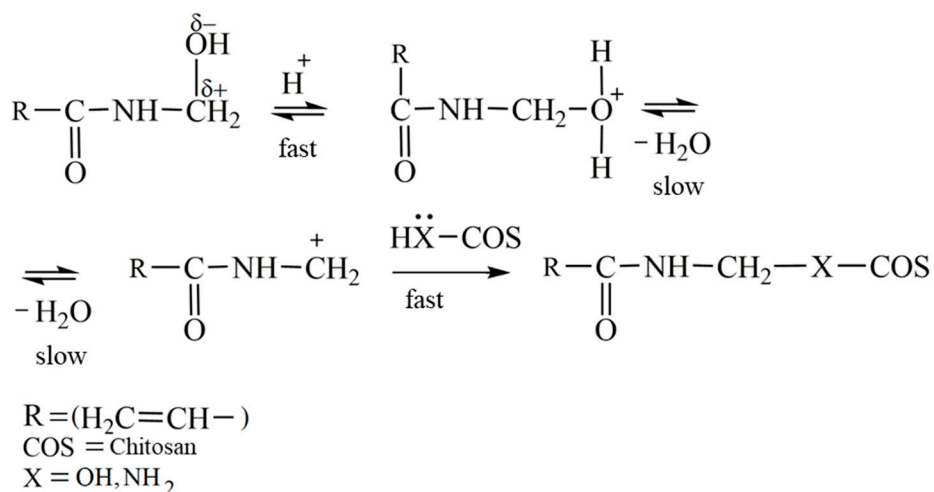


Figure S3. S_N1 mechanism of interaction of chitosan and NMA.

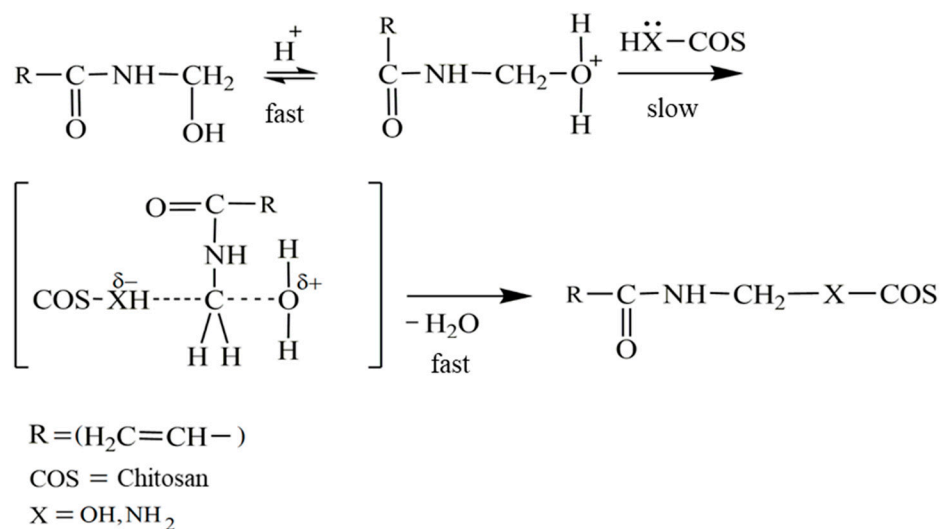


Figure S4. S_N2 mechanism of the interaction of chitosan and NMA.

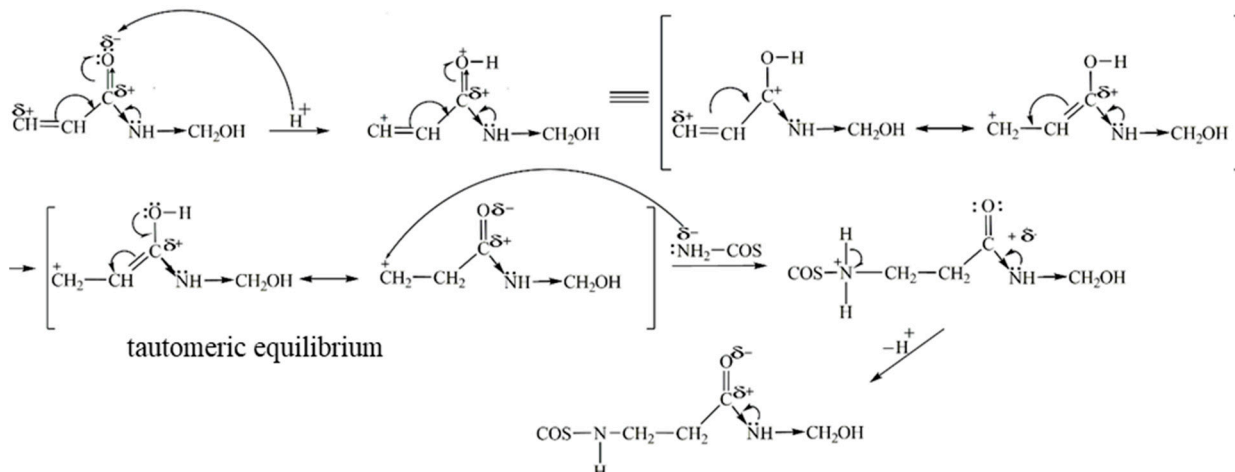


Figure S5. Proposed scheme of nucleophilic addition mechanism.