

Effect of storage in acidic solution for ultrasonic treated chitosan solution

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This study examined the effect of storage a 0.1% chitosan (ultrasonic treated for 0, 60, 120min) in different solvent at room temperatures for 20days on the changes of its viscosity and molecular weight. The results show that the viscosity and molecular weight decreased faster in untreated chitosan than those subject to ultrasonic treatment for various times during holding in different solvent. The changes in viscosity and molecular weight of those ultrasonic treated chitosan and chitosan solution of different solvents did not differ significantly. The results indicated that acid hydrolysis occurred at ambient temperatures when holding chitosan in acidic solution for long time. The extent of acid hydrolysis was remarkable for high molecular weight chitosan, but less extensive for lower molecular weight.