# The Chitosan Degradation by Ozonation Process to Produce Glucosamine and Oligomers Chitosan

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**Abstract.** Chitosan is a linier copolymer (1→4)–linked 2-acetamido-2-deoxy-β-D-glucan (GlcNAc) and 2-amino-2-deoxy-β -D-glucan (GlcN) units in varying compositions. It is considered to be non-toxic, reactive and abundant biodegradable material. Because of the advantages of chitosan, it has received much attention for many diverse applications in biomedicine, pharmaceutics, cosmetic, biomaterial, agriculture, food processing, and waste water treatment. Chitosan has high molecular weight and also strong intra and intermolecular hydrogen bonding. Ozonation becomes alternatives to degrade chitosan into chitosan oligomers and glucosamine. In this study, chitosan was treated by ozonation process with various composition and temperature process. After ozonation, chitosan was characterized by viscosimetry and HPLC to determine molecular wight and also the dissolved product. Low molecular weight of chitosan was also characterized by FTIR to analyzed wether there was changing in side group of product.

**Keywords:** Ozonation, degradation, chitosan, glucosamine
**PACS:** 87.15.rp