Chitosan Derivatives

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Contributor: Jack Zhong

Chitosan Derivatives are chitosans whose amino or hydroxyl groups have been substituted, grafted or quaternised, so a polymer soluble only in dilute acid becomes one whose solubility, charge and reactivity are set by the substituent. The degree and the position of substitution, on C2, C3 or C6, fix the properties more than the parent molecular weight does. Quaternisation of the amino group with glycidyltrimethylammonium chloride gives a permanently cationic chitosan that dissolves over a wider pH range [1]. Reviews of the preparation routes relate the substitution pattern to charge density and to the biological response [2]. Grafted derivatives form superabsorbent networks whose uptake follows the ionic content [3].

chitosan substitution | substitution | quaternary chitosan | antibacterial | polysaccharide | superabsorbent

References

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