

## 利用馬來酸酐修飾幾丁聚醣的反應研究

In this study, chitosan was modified with maleic anhydride in formic acid through the reaction of amino group with anhydride group. In order to obtain products with different degree of substitution, different amount of maleic anhydride was employed to react with chitosan. After reaction, the available double bonds in the attached maleic acid can be further used for grafting synthetic polymers onto chitosan chains. The result showed that the degree of substitution increased with the added amount of maleic anhydride. In addition, the conversion increased with reaction time and reached a plateau value after 6h. Because the products have amino group and carboxyl group, they have different swelling ratio values in different pH environments. It was confirmed as a pH sensitive hydrogel.