

Preparation of Chitosan from Crab Shell and its Antibacterial Activity Against UTI Pathogens †

A. Mini Varsini ^{1,*}, S. Abirami ¹, P. Revathi ¹, S. Sakthikavitha ¹

¹ Department of Microbiology, Kamaraj College, Thoothukudi, Tirunelveli

* Correspondence: abisasi@gmail.com;

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Abstract: Chitosan was extracted from the chitin of crab shells. The process of deacetylation removes acetyl groups from the molecular chain of chitin. The yield of chitosan was 37.5%, moisture content was 64.32%, water binding capacity was 58.44%. This study concluded that the FT-IR, NMR method is one of the best methods of determination of deacetylation. The crab shell extracted chitosan had significantly inhibited the pathogenic *Escherichia coli*, *Proteus sp.*, and *Klebsiella sp.*, isolated from UTI infected patients.

Keywords: Deacetylation; Deproteinization; chitin; biocompatible.

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Conflicts of Interest

The authors declare no conflict of interest.