**Abstract**

Chitin is one of the most abundant natural polysaccharides and it is mainly used for the production of chitosan by a de-acetylation process. Chitosanis a biopolymer used as a packing material in food industry. Chitosan biopolymer is an effective material, due to its functional properties such as antibacterial activity, non-toxicity and biodegradability. The main objective of the study focuses on the synthesis and characterization of the chitosan biopolymer. The chitosan is synthesized by wet chemical synthesis method. The absorbance characteristic was studied by UV visible spectroscopic technique. The crystallinity of the material was confirmed by X-ray diffraction technique. The morphological structure of the polymer sheet was confirmed by SEM analysis. The mechanical strength of the chitosan bio-polymer was analyzed by Tensile and Tear techniques and from the result it is observed that the elongation% and force of biopolymer sheet is about 117% and 1.12 N.