In this research, three different degrees of deacetylation (DD) chitosan were produced by using high concentration sodium hydroxide solution. These chitosans were further dissolved in acetic acid aqueous solution respectively and formed three electrolyte solutions. These solutions were electrolyzed and three chitosan films with different DD values were obtained. These films were modified by soaking in LiCl(aq). During electrolysis, the pH and conductivity of the electrolyte solutions were decreased consequently. From the impedance analysis results, we found that the modified films have conductivity of $10^{-3}$ S/cm which are higher than $10^{-8}$ S/cm of unmodified films. From the X-ray patterns, we found the crystallinity of chitosan films were changed after electrolysis.

**Keywords**: degree of deacetylation; electrolyze; chitosan film; conductivity; impedance.

Arof, A. K. and M. Z. A. Yahya (2004), Conductivity and X-ray photoelectron studies on lithium acetate doped chitosan films, Carbohydrate Polymers, 55, 95-100.