DEVELOPMENT OF CELLULOSE-BASED PRECURSOR SOLUTION FOR ELECTROSPINNING TECHNIQUE

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To electro-spin a polymer solution, certain specific conditions need to be met, for example, acetyl content (A) (38- 40%), degree of substitution (DS) (2.3-2.5), molecular weight(M) (30,000 100,000 gmol-1) solution system of CA 15w%, acetone 80w% and water 5w%.

This study aimed to produce an electro-spinnable cellulose acetate precursor solution from raw cotton. This paper discusses the cellulose extraction process as well as the characterization process. The electro-spun cellulose acetate fibers are significantly crucial to high-tech product designs.

Keywords: electro-spin, cellulose acetate, cotton