
ABSTRACT

Giving the importance of natural fibers has bio-degradable materials and its application in textile products this project work was focused studying the antimicrobial properties of “sidarhombifolia” a newly discover fiber and its application of textile field . The study of Sida rhombifoliafor the production of non woven materials for application in the medical field.It is well establish for ayurvedic system of medicine and used as an anti-rheumatism anti-asthmatic, anti-inflammatory agent. This plant of malvaceae family popularly known for its high medicinal value was investigated as araw materialfor the production of non woven fabrics for application in medical textile such as healthcare products. Phytochemical extract ofsidarhombifolia fiber was done with ethanol.results of phytochemicalstudies revealed that, it possesses therapeutically active agents viz; alkaloids,flavonoides,sterols,carbohydratessaponin.high quality fiber left on the stem was extracted to study the physico chemical and mechanical properties. Results obtained from the structural investigations and property studies reveled that,the possesses the required strength to produced non woven materials for healthcare products.The micro-structural characteristics of the fiber investigated by FTIR. After the test the fiber used to produce some non woven medical healthcare products such as surgical masks, caps, compressions, and bandages and wound dressing.

Bamboo is aneco-friendly and multi functional plant. Bamboo clothing has recently entered the textile market with a claim for its antimicrobial properties, but without scientific evidence. In this study anti bacterial activity of plant extract from bamboo is investigated. Bambooextract were collected locally and crushed to powder form and than mixed with dimethyl sulthoxideand dioxane and water.The juice was taken for antimicrobial test. The bacteria used for antimicrobial test are Escherichia coli.The bamboo having good antimicrobial property.Resultsshow it having good strength,absorbency and high breathable properties from FTIR.

In this project an effort is made to investigated and compare the antimicrobial property of Sida rhombifoliafor and bamboo fiber for medical application and health care product FTIR and phytochemical of both the fiber were carried out.The results revels that both fibers shows good antimicrobial property .
