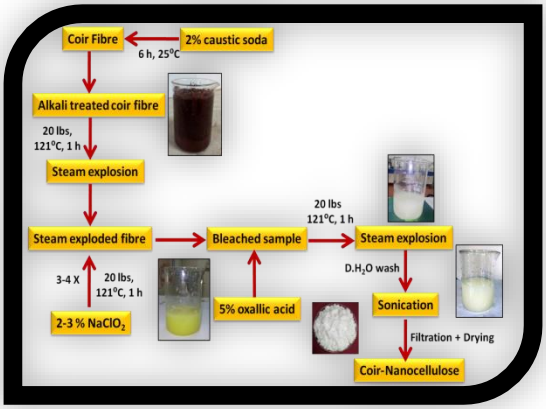
PRODUCT 1: NANOCELLULOSE FROM COIR

Cellulose is an abundant and naturally occurring polymer that can be obtained from numerous resources. The promising performance of cellulose nanofibres and their abundance encourages the utilization of agricultural waste residue, which acts as the main source of cellulose.

Nanocellulose was successfully extracted from coir fibres and the extracted nanofibers were characterized for analyzing its physicochemical properties through different characterization techniques viz. SEM, FT-IR and XRD. The absorption properties of the material has also been studied by determining the free swell absorptive capacity and centrifuge retention capacity since the intended application was for the manufacture of adult and baby diapers and sanitary napkins.



Applications:

Nanocellulose is a biomaterial highly applicable to biomedical industry, specifically in tissue engineering, drug delivery, cartilage replacements, tissue engineering, cardiovascular applications, wound dressings and medical implants.