SCALING UP OF THE PROCESS OF EXTRACTION OF SODIUM LIGNOSULPHONATE FROM COIR PITH FOR DIVERSIFIED APPLICATIONS.

Abstract :

Coir Pith is purely a natural organic by product gained during the extraction of Coir fibre from coconut husk whose main components are Cellulose (26.4%), Hemicellulose (30%) and lignin (30-35%). The lignin present in Coir pith can be easily converted to lignosulphonates. Lignosulphonates are of great importance because of its vast applications. The present study aims in formulating a simple and convinent method for the extraction of lignosulphonates from Coir pith through the processes of digestion, filteration, acidification followed by distillation and drying. The so extracted lignosulphonates are further being characterized using FT-IR, TGA, XRD, Particle size analysis and are analysed for its TDS, pH and moisture. The extracted lignosulphonates show comparable results with that of the commercially available one. The sample of extracted lignosulphonate was sent to Institute of Drilling technology(IDT), Dehradun for its application level studies and as per their direction modification were made in its extraction process.