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# SYNTHESIS AND CHARACTERIZATION OF MICROCRYSTALLINE CELLULOSE FROM CASSAVA STEM

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**Abstract**
Cellulose is the most abundant natural renewable resources. Major studies over last decades have shown that microcrystalline cellulose has received much attention in the global scientific community for their unique mechanical and optical properties. This research aims to synthesise and study the character of cassava stem based microcrystalline cellulose. Microcrystalline cellulose is synthesised through the series of chemical treatments like alkali treatment and bleaching. The structural analysis of the extracted celluloses is carried out by Fourier transform infrared spectroscopy (FT-IR), X-ray diffraction (XRD) and scanning electron microscopy (SEM). Thus, cassava stem can be utilized for the synthesis of microcrystalline cellulose.

***Keywords:*** *Cassava stem; Microcrystalline cellulose; Synthesis; Characterization.*