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A COMPREHENSIVE REVIEW ON THE BIOCHEMICAL METHODS FOR ANALYSIS OF CARBOHYDRATES IN LIGNOCELLULOSIC MATERIALS

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Abstract

Lignocellulosic materials encompass diverse range of carbohydrates (primarily pectin, sugars, starch, cellulose and hemicellulose) have been a focus of intense research in food and fuel industries. Several biochemical methods were available for characterization of lignocelluloses prior to processing. This paper comprehensively reviews various biochemical methods available to analyze carbohydrates with their merits and demerits. Predicting a best method to investigate a particular carbohydrate is unrealistic as it relies on various factors such as cost and type of chemicals required, time taken to complete the analysis, accuracy in result, range of analysis, nature of sample, water consumption etc., Conversely, some biochemical methods have drawbacks over exploitation due to hazardous nature of chemicals used during the analysis.

Keywords: Carbohydrate, Biochemical methods, Lignocelluloses.