SHORT COMMUNICATION

Physicochemical and analytical evaluation of *Moringa* gum

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ABSTRACT

Moringaoleifera (commonly referred to as the drumstick tree) is probably one of the most well-known trees in terms of medicinal and nutritional value. The Moringa gum is of interest as pharmaceutical excipient, based on its physicochemical properties and biocompatibility among the different components. The present research article aims to evaluate comprehensively some Physicochemical and analytical properties of Moringa gum, giving insight into its possible pharmaceutical applications. Research on Gum Organoleptic Properties and Features. This study examines the characterization of Moringaoleifera gum as a natural polymer. Moringa gum was extracted and purified according to standard protocols, followed by detailed physicochemical and thermal analyses. The gum was evaluated by using Fourier Transform Infrared Spectroscopy (FTIR) and Differential Scanning Calorimetry (DSC) Scanning electron microscopy (SEM), Thermal analysis and UV-spectrophotometric study. These results indicate that Moringa oleifera gum holds potential as a natural polymer for designing sustained release drug delivery systems.

Keywords: Analytical characterization, *Moringa* gum, natural gum, natural polysaccharides, physicochemical properties.