

# Synthesis of Biodegradable Plastic from *Citrus reticulata* peels

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**Abstract:** In the modern society plastics play a vital role as packaging materials in almost all the sectors of day-to-day life. These plastics do not degrade easily as they are invulnerable to the microbial decomposition and thus persist for a long time in the environment. All these have caused tremendous harm to the environment. To solve this problem alternative methods for producing bio-based plastics are highly encouraged. Bio-based plastics are derived from natural resources. These bioplastics can be composed of a variety of materials such as starch, cellulose etc. The present study has been conducted to serve two purposes at a time. The first one is to make use of the fruit's wastes and second, production of the bioplastic from those wastes. The production process was made using simple laboratory techniques. Characterization methods such as Fourier transform infrared (FTIR) spectroscopy and biodegradability further confirmed the properties of the bio-based plastic.

**Keywords:** Peels, Carbohydrate, FTIR, Biodegradable.

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