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(57) Abstract :

The present invention relates to a system and method for producing bioplastics from waste peels of elephant foot yam (*Amorphophallus paeoniifolius*). The invention addresses environmental concerns associated with the disposal of vegetable waste by converting discarded peels into valuable bioplastic materials. The process involves collecting and cleaning the peels, extracting starch through mechanical grinding and filtration, gelatinizing the starch, plasticizing it with plasticizers, and finally molding and drying to form bioplastic products. These bioplastics are biodegradable and suitable for applications such as packaging materials, offering an eco-friendly alternative to traditional plastics. The invention promotes sustainability by utilizing waste materials, reducing environmental pollution, and contributing to a circular economy. Accompanied Drawing [FIGS. 1-2]

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