



Bacterial Bioplastic and its Degradation

DEVELOPMENT AND BIODEGRADABILITY OF PHBV POLYMER

KEY WORDS
BIOPOLYMER,
DEGRADATION,
SUSTAINABLE
PLASTIC

DESCRIPTION

This development focuses on producing the PHBV biopolymer from bacteria and studying its intra and extracellular degradation. Mechanical properties and molecular weight are evaluated to determine its lifespan and potential environmental or biomedical applications. The work is carried out in bioreactors under controlled conditions.

POTENTIAL BENEFITS OR IMPACTS

This biodegradable material offers a sustainable alternative to conventional plastics. It can be applied in single-use packaging, agriculture, and biomedicine. The study supports efficient degradation pathways, reduces environmental impact, and encourages industrial scaling.

TECHNOLOGY MATURITY LEVEL (TRL)

TRL 2: formulation of the technological concept

AREA OF APPLICATION

Plastics
Chemistry

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