

BIOPLASTIC PRODUCTION FROM MICROORGANISM

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Despite many disadvantages, plastic products have been the preferred material because of easy to take shape, flexibility, convenience, cheapness, and transport. However, in terms of environmental pollution the plastic "to disposable" feature has already become one of the biggest problems. Therefore, in recent years, plastics as the source of ecological problems are encountered. As an alternative to plastic polymers thus produced by microbial fermentation of poly-beta- hydroxybutyrate (PHB) has started research. Nowadays, such as PHB, renewable, biocompatible, and environmentally friendly plastics and polymer chemistry synthesis in bacteria positive results obtained in the practices related to statistics with interest in bioplastics is increasing every day. The plastic obtained from renewable carbon source or biological origin, is produced by plants, animals, fungi, algae or bacteria. PHB by many microorganisms created in non-suitable breeding conditions. PHB accumulation occur usually in the presence of too much carbon source, nitrogen source, however, necessary for growth, lack of oxygen and nutrients, such as essential elements. Bacterial production of bioplastics reveals that more could be used for future applications. To benefit from the advantageous properties and industrial PHB production make the determination of appropriate strains research such as *Alcaligenes*, *Pseudomonas*, *Rhizobium*, *Bacillus*, *Azotobacter*, *Hydrogenomonas* and *Chromatia* as genus of bacteria. In addition, recombinant *E. coli* are being developed for the production of PHA at high efficiency. Due to their ability to disintegrate easily making and PHB is more used as a packing material. Outside packaging is used in food, medicine, pharmacy, and agriculture.

Keywords: Bioplastic production, poly-beta- hydroxybutyrate (PHB)

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