

Biological Recycling of Polymers

Brief description:

Some technical polymers pose difficulties in terms of mechanical recycling, while chemical recycling is associated with environmental and health hazards. Biodegradation promises a potential solution to plastic pollution. Microorganisms such as Actinobacteria can utilize polymers as carbon sources, thus, contributing to their degradation.

Your tasks:

- Run parameter studies with various bacterial stems
- Analyse the degradation process using various techniques (optical, chemical, thermal, mechanical)
- Evaluate the degradation process and identify a possible bio-recycling process for selected technical polymers
- Publication of the acquired research results

Your Qualifications:

- Background in the field of polymer engineering, microbiology or similar

Supervision and information:

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