

Abstract - Identification of Microbial Enzymes for Plastic Degradation: Possibilities and Limitations

Plastics have become indispensable in modern society due to their versatility, durability, and low production costs. However, their long-term persistence in the environment has led to growing ecological concerns and calls for sustainable solutions. Among the most promising approaches is the use of microbial enzymes that can break down synthetic polymers. In particular, enzymes capable of attacking recalcitrant plastics such as polyethylene terephthalate (PET) have gained great attention in the past years. This presentation highlights work on the identification and characterization of microbial enzymes with plastic-degrading capabilities and addresses current limitations and possibilities of enzymes as catalysts for plastic waste degradation.