



## Biopolyesters

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Steinbüchel, Alexander.,

editor

Babel, Wolfgang.,

editor

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2001

Libros electrónicos

Monografía

Living systems synthesize seven different classes of polymers. They provide structure and form for cells and organisms, function as catalysts and energy storage and carry the genetic information. All these polymers possess technically interesting properties. Some of these biopolymers are already used commercially. This special volume of *Advances in Biochemical Engineering/Biotechnology* comprises 10 chapters. It gives an overview of the water insoluble biopolyesters, in particular of the microbially synthesized polyhydroxyalkanoate (PHA) family. It reports the state of the art of metabolism, regulation and genetic background, the latest advances made in genetic optimization of bacteria, "construction" of transgenic plants and in vitro synthesis by means of purified enzymes. Furthermore, it describes relevant technologies and evaluates perspectives concerning increasing the economic viability and competitiveness of PHA and discusses applications in medicine, packaging, food and other fields

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Production of Microbial Polyester by Fermentation of Recombinant Microorganisms -- Production of Polyesters in Transgenic Plants -- In Vitro Biosynthesis of Polyesters -- Properties, Modifications and Applications of Biopolyesters -- Microbial Degradation of Polyesters

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