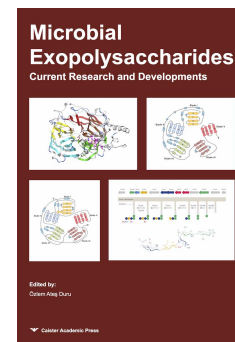


Microbial Exopolysaccharides

Current Research and Developments



Edited by: **Özlem Ates Duru**
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Exopolysaccharides produced by microorganisms are rapidly emerging as new and industrially important biomaterials. Due to their unique structures and novel functionality microbial exopolysaccharides have a myriad of commercial applications in fields ranging from agriculture and medicine to the food and pharmaceutical industries.

Written by an international team of experts this authoritative volume describes the most recent and innovative research and developments in the field. Topics include: exopolysaccharide production by halophilic and thermophilic microorganisms, exopolysaccharides from *Weissella* and *Leuconostoc*, fructan biosynthesis, engineering of microbial polysaccharide structures, molecular modification of levan, levan in medical and biotechnological applications, and much more.

Essential reading for everyone with an interest in microbial polysaccharides, from the PhD student to the experienced scientist, this book provides a timely review of the current and most topical areas of research. The volume is a recommended purchase for all commercial and academic laboratories involved in polysaccharides research.

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- Chapter 2.** Sources, Biosynthesis, Properties, Structures and Applications of Halophilic Exopolysaccharides (*Annarita Poli, Paola Di Donato, Ilaria Finore, Luigi Leone and Barbara Nicolaus*)
- Chapter 3.** Exopolysaccharide Production by Thermophilic Microorganisms (*Songul Yasar Yildiz*)
- Chapter 4.** Engineering of Microbial Polysaccharide Structures (*Jochen Schmid*)
- Chapter 5.** Microbial Exopolysaccharides Based Drug Delivery Systems (*Aynur Muduroglu Kirmizibekmez, Songul Yasar Yildiz and Özlem Ates Duru*)
- Chapter 6.** Fructan Biosynthesis in Bacteria (*Lázaro Hernández, Yamira Quintero and Alexis Musacchio*)
- Chapter 7.** Exopolysaccharides from Genus *Weissella* and their Functional Applications (*Rwivoo Baruah and Arun Goyal*)
- Chapter 8.** Fructans as Natural, Bioactive Cosmeceutical Ingredients (*Merve Erginer Hasköylü, Margarita Kambourova and Ebru Toksoy Öner*)
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- Chapter 10.** Molecular Modification of Levan and Biotechnological Applications of its Derivatives (*Edmilson Clarindo de Siqueira, Bogdan Doboszewski, Juliana de Souza Rebouças, Irapuan Oliveira Pinheiro, Ebru Toksoy Öner and Fabio Rocha Formiga*)
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