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Enzymatic synthesis of chitosan derivatives and their potential applications

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Chitosan derivatives were performed by enzymatic tools under mild conditions.

The enzymatic tools were an alternative to toxic and non-specific chemical approaches.

The enzymatic process improved its properties and created new properties.

The enzymatic functionalization enlarged the field of its potential applications.

The chitosan derivatives were found to have very important applications in various fields.

Abstract

Chitosan (aminopolysaccharide) exhibiting excellent functional properties was found to be a good natural source in various applications. However, practical use of chitosan was generally limited due to its weak solubility in neutral pH, its poor workability and low antioxidant activity. For a breakthrough in utilization, the functionalization of chitosan will be a key point, allowing the introduction of desired properties and enlarging the field of its