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Nanomaterials**Materials Science : Nanotechnology**

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Nanotechnology in Edible Food Packaging

Food Preservation Practices for a Sustainable Future

- Presents recent advances in the utilization of edible food packaging for food products
- Focuses on the use of nanotechnology in edible packaging materials with their modification, processing capabilities, several packaging materials and their properties
- Provides academia and industry with a summary of the significance and existing shortcomings of different bio-based nanostructured polymers towards their commercialization as edible food packaging materials

This volume delivers a systematic overview of nanotechnology in the development of edible food packaging with noteworthy characteristics for improved food quality. It covers current research trends, history outlines, and state of the global market in combination with associated biomaterials and synthesis strategies. The contents detail the use of various emerging bionanostructured materials such as cellulose nanostructures, chitosan nanostructures, and more. It further deliberates an in-depth discussion on various synthesis strategies and routes for the development of edible food packaging in terms of utilizing various nanosystems such as polymeric nanocomposites, nanoencapsulation systems, nanoemulsion systems, and others. Further, it also discusses experimental practices for bionanostructured and edible packaging materials to check the effectivity in terms of offering enhanced shelf life of food products. It also touches upon the socio-techno challenges in-line with developing edible packaging materials using nanotechnology for high performance packaging application. The book is an excellent guide for both the academia and industry especially early career professionals in edible food packaging sectors for selecting proper biomaterial involving biofillers, modifiers, cross linkers, compatibilizers and others to enhance the property of edible food packaging for targeted features.

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