

Review of bionanocomposite coating films and their applications

ABSTRACT

The properties of a composite material depend on its constituent materials such as natural biopolymers or synthetic biodegradable polymers and inorganic or organic nanomaterials or nano-scale minerals. The significance of bio-based and synthetic polymers and their drawbacks on coating film application is currently being discussed in research papers and articles. Properties and applications vary for each novel synthetic bio-based material, and a number of such materials have been fabricated in recent years. This review provides an in-depth discussion on the properties and applications of biopolymer-based nanocomposite coating films. Recent works and articles are cited in this paper. These citations are ubiquitous in the development of novel bionanocomposites and their applications.

Keyword: Bionanocomposite; Coating film; Crosslink; Nanomaterials; Biodegradable polymers