Patent Search

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Abstract:

The proposed invention involves the green synthesis of nanometals from plant extracts for use in antimicrobial coatings. The plant extracts are used as reducing and agents, resulting in nanometals with high stability and biocompatibility. The resulting nanometals are then incorporated into various coating materials to create antin coatings that have the potential to inhibit the growth of harmful bacteria, fungi, and other pathogens. The green-synthesized nanometals also have unique optical an properties, making them useful for a wide range of applications. The proposed invention offers a sustainable and cost-effective solution to the limitations of current a coatings, while also contributing to the development of new plant-based materials and the field of nanotechnology.

Complete Specification

Description:The proposed invention relates to the field of nanotechnology and specifically to the composition of green-synthesized nanometals from plant extracts in antimicrobial coatings. The invention involves the use of natural plant extracts as reducing and capping agents in the synthesis of nanoparticles, which can then b to create antimicrobial coatings for a wide range of applications.

Background of the invention:

The invention of green-synthesized nanometals from plant extracts for use in antimicrobial coatings is a groundbreaking innovation in the field of nanotechnology. of nanometals as antimicrobial agents is not new, but the traditional methods of synthesizing these nanoparticles involve the use of harmful chemicals and can hav negative environmental impacts. The proposed invention offers an eco-friendly and sustainable alternative to traditional methods of synthesizing nanometals by ut plant extracts as reducing and capping agents.

Antimicrobial coatings are an essential component of many industries, including healthcare, food processing, and transportation. These coatings prevent the spreac harmful bacteria, viruses, and other pathogens, which can lead to illness and disease. Traditional antimicrobial coatings are made from chemicals such as silver and which are effective in killing bacteria and viruses but can have negative environmental impacts. The proposed invention of green-synthesized nanometals from plar extracts offers a sustainable and environmentally friendly alternative to traditional antimicrobial coatings.

The concept of using plant extracts as reducing and capping agents in the synthesis of nanoparticles is not new. The use of plant extracts in the synthesis of nanopa has been studied extensively in recent years, and several plants have been identified as having the potential to synthesize nanoparticles. Plant extracts contain a va biomolecules, including polyphenols, flavonoids, and tannins, which can act as reducing and capping agents in the synthesis of nanoparticles. These biomolecules h

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