

عنوان مقاله:

Preparation and identification of nanoparticles of lanthanum oxide and its application as antibacterial

محل انتشار:

بیستمین سمینار شیمی معدنی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Preparation of nanoparticles is by chemical means different processes, such as: Chemical vapor deposition, Coexistence, Sonochemistry, Sol-gel, Hydrothermal. An important advantage of these methods is the possibility of achieving a high degree of chemical homogeneity [1]. From the past, nanoparticles have been discussed in two sections, metallic and non-metallic. Bacteria are a group of microscopic organisms that surround a fairly thick outer covering. They have simple structures and belong to prokaryotic cells. Metal oxide nanoparticles exhibit different antibacterial properties based on surface to volume ratio. Gram-positive bacteria exhibit more resistance than gram-negative bacteria against metal nanoparticles, which can be related to the structure of the cell wall. Staphylococcus aureus is one of the most important pathogenic bacteria in hospital infections. Staphylococcus aureus is a major pathogen for humans and is responsible for food poisoning and non-intestinal infections such as skin infection, ulcers, and abdominal abscesses [2]. Escherichia coli has a fecal origin due to its digestive tract and can be easily spread through humans and animals. In this study, we prepared La_2O_3 nanoparticle. This compound has been characterized using FT-IR, XRD, SEM and VSM techniques. The antibacterial properties of this compound have also been investigated.

کلمات کلیدی:

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