عنوان مقاله:

Synthesis and Characterization of Antibacterial Cu- Incorporated ZnO Nanoparticles

محل انتشار:

نهمین کنفرانس و نمایشگاه بین المللی مهندسی مواد و متالورژی ایران و چهاردهمین همایش ملی مشترک انجمن مهندسی متالورژی و مواد ایران و انجمن ریخته گری ایران (سال: 1399)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Zinc oxide nanoparticles through precipitation process as a cost-effective and flexible process by two different routes were synthesized. The effect of changing process parameters on the structure, size and antibacterial properties of nanoparticles was investigated. FESEM micrographs showed that the nanoparticles synthesized using stabilizing agent and lower heat treatment temperature have a smaller in size and positive effect on the antibacterial properties of the nanoparticles. Copper-doped zinc oxide nanoparticles with appropriate concentration of copper ion showed .increased antibacterial activity against Gram-positive Staphylococcus aureus than pure nanoparticles

کلمات کلیدی:

ZnO nanoparticles, Cu-doped ZnO, Antibacterial agent