

## عنوان مقاله:

The effect of alkaline ion exchange time on the antibacterial property of copper/soda lime silica gel

## محل انتشار:

اولین کنفرانس بین المللی آب، محیط زیست و توسعه پایدار (سال: 1395)

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## خلاصه مقاله:

The aim of this project was evolution of the antibacterial effect of copper/soda lime silica gel nanocomposites. These nanocomposites were prepared via immersion of silica gels in the molten salt of copper sulfate at 560 °C. In this investigation, the proposed method results in synthesis of nanoparticles and immobilization of them on the substrate with less than 40 min. The morphology and absorption spectra of the nanocomposites were characterized by SEM and UV-Vis spectrophotometer. The antimicrobial activity of samples was also investigated by microbial tests. Interestingly, all the prepared nanocomposites revealed the inhibitory effect against E. coli. However, the highest inhibitory effect depends on the copper content and size. According to stability test results, the nanocomposites were stable

## کلمات کلیدی:

Ion exchange, Copper, Silica gels, Nanocluster, Antibacterial

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/595993>

