

## عنوان مقاله:

Biocompatibility evaluation of bioglass nanoparticles to chondrocyte cells by isothermal microcalorimetry

## محل انتشار:

هفدهمین کنفرانس مهندسی پزشکی ایران (سال: 1389)

تعداد صفحات اصل مقاله: 4

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## خلاصه مقاله:

This study aimed at the biocompatibility evaluation of bioglass nanoparticles to chondrocyte cells using isothermal micro/nano calorimetry (IMNC), which is a new method to study cell/biomaterial interactions. For this purpose, 63S bioglass nanoparticles were made via sol-gel method and primary characterization was carried out on the particles. XRD analysis showed the amorphous structure of the glass and the particle size and morphology were investigated by SEM. Finally the bioglass nanoparticles' biocompatibility with yeast and cultured human chondrocyte cells was evaluated using IMNC. The results showed no deleterious effect on chondrocyte growth and they can grow, proliferate and live on beside bioglass nanoparticles. In another word, the obtained results from this study confirmed the growth, proliferation and viability of chondrocyte cells close to 63S bioactive glass nanoparticles at low concentrations.

## کلمات کلیدی:

biocompatibility; bioglass; chondrocyte cells; microcalorimetry

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/203038>

