

عنوان مقاله:

Biomimetic synthesis of gelatin-hydroxyapatite composite scaffold for bone tissue engineering application

محل انتشار:

ششمین کنفرانس بین المللی کامپوزیت، مشخصه سازی، ساخت و کاربرد (سال: 1397)

تعداد صفحات اصل مقاله: 3

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خلاصه مقاله:

Biomimetic Porosity of Gelatin/hydroxyapatite (HA) scaffold was fabricated by using solvent casting method and particulate leaching technique. The composite solution were prepared by adding fixed weight percentages of HA (30wt%) with different concentration a gelatin solution (0.25wt%, 0.30wt%, 0.35wt%, 0.40wt% and 0.50wt%) . Five different composites polymers were poured into a mold with size of 15mm x 15mm x 10mm cube and dried in the oven dryer under 60°C to 90°C. After that, the dry composite scaffolds were immersed in the 8% of glutaraldehyde (GA) solution in a few minute for crosslinking process. Porosity of the scaffold is obtained by doing liquid displacement method. Meanwhile, the mechanical properties (Young's Modulus) of the scaffolds are obtained by doing compressive test on the scaffold. Lastly, the microstructure and morphology of the composite scaffolds were observed under .(Scanning Electron Microscope (SEM

کلمات کلیدی:

Biomimetic, Gelatin, Hydroxyapatite, Bone scaffold, Solvent casting

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