

Preparation and Characterization of Silk/Diopside Composite Nanofibers via Electrospinning for Tissue Engineering Application

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Abstract : This work focused on preparation and characterizations of silk fibroin (SF)/nanodiopside nanoceramic via electrospinning process. Nanofibrous scaffolds were characterized by combined techniques of scanning electron microscopy (SEM), Fourier-transform infrared spectroscopy (FTIR), X-ray diffraction (XRD). The results confirmed that fabricated SF/diopside scaffolds improved cell attachment and proliferation. The results indicated that the electrospun of SF/nanodiopside nanofibrous scaffolds could be considered as ideal candidates for tissue engineering.

Keywords : electrospinning, nanofibers, silk fibroin, diopside, composite scaffold

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