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Title: PREPARATION AND CHARACTERIZATION OF A BACTERIAL CELLULOSE/SILK FIBROIN SPONGE SCAFFOLD FOR TISSUE REGENERATION

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1 **PREPARATION AND CHARACTERIZATION OF A BACTERIAL CELLULOSE/SILK**  
2 **FIBROIN SPONGE SCAFFOLD FOR TISSUE REGENERATION**

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20

21 **Abstract**

22 Bacterial cellulose (BC) and silk fibroin (SF) are natural biopolymers successfully applied in  
23 tissue engineering and biomedical fields. In this work nanocomposites based on BC and SF were  
24 prepared and characterized by Scanning Electron Microscopy (SEM), Infrared Spectroscopy  
25 (FT-IR), X-ray diffraction (XRD) and thermogravimetric analysis (TGA). In addition, the  
26 investigation of cytocompatibility was done by MTT, XTT and Trypan Blue dye technique.

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