

Название публикации:

Nanofiber-bonded cloth materials based on poly-3-hydroxybutyrate with antibacterial properties for medical purposes

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Аннотация:

Different transdermal systems based on solid polymer matrices or gels containing functional substances with antiseptic (antibacterial) properties have application to the therapy of many infectious diseases and cancer. Today the most promising type of matrices with antiseptic characteristics are the nano- and microfiber nonwoven materials. Fibers on the biopolymer (poly(3-hydroxybutyrate)) basis were obtained using the electrospinning method. In the present work, the effects of iron (III) complex with tetraphenylporphyrin and its influence on bactericidal and antibacterial properties of the ultrathin PHB fibers were investigated.

Ключевые слова:

Disease control, Diseases, Iron oxides, Weaving, Antibacterial properties, Electrospinning method, Infectious disease, Micro-fiber, Nonwoven materials, Poly-3-hydroxybutyrate, Solid polymers, Tetraphenyl porphyrins, Electrospinning