

Название публикации:

Supramolecular structure of electrospun ultrathin fibers based on poly-(3-hydroxybutyrate) with zinc-tetraphenylporphyrin complex

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Аннотация:

The effect of small concentrations of zinc-tetraphenylporphyrin complex on the structure of ultra-thin fibers based on poly(3-hydroxybutyrate) was studied. X-ray diffraction analysis, EPR spectroscopy and optical microscopy showed that incorporation of porphyrin complexes into fibers leads to the growth in paracrystalline structures of poly(3-hydroxybutyrate) without any changes in its degree of crystallinity. In addition, the proportion of dense domains in the amorphous regions of polymer fibers increases. According to X-ray diffraction analysis, the introduction of 1-5% of the complexes into the polymer does not change the supramolecular structure of poly-(3-hydroxybutyrate) in the fibril: unit cell dimensions of crystallites, degree of crystallinity, crystallites size, long period and crystallinity. © 2018 Author(s).

Ключевые слова:

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