

INORGANIC ELECTROSPUN TiO₂ NANOFIBERS USED FOR ANTIBACTERIAL POLYMER SURFACES

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Abstract

In this context, nanofibres that have improved properties compared to conventional materials are widely used. Titanium dioxide TiO₂ nanofibres are mainly used for many applications, which are characterized by their crystalline structure. Nanofibres are produced based on the principle of electrospinning with subsequent calcination of the spinning material. Titanium dioxide possesses antibacterial functions by its photocatalytic properties which can destroy bacteria or suppress their reproduction. We have recently developed an innovative TiO₂ polymer surfaces. The results showed the bacterial activity in the vicinity of these surfaces during influence of UV light.

Keywords: Nanofibers, TiO₂, antibacterial, UV light

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