

Title (en)
POLYETHYLENIMINE NANOPARTICLE-CONTAINING MICROBICIDAL ELECTROSPUN POLYMER FIBERS FOR TEXTILE APPLICATIONS

Title (de)
MIKROBIZIDE ELEKTROGESPONNENE POLYMERFASERN MIT POLYETHYLENIMIN- NANOPARTIKELN FÜR TEXTILE ANWENDUNGEN

Title (fr)
FIBRES POLYMÈRES ÉLECTROFILÉES MICROBICIDES COMPRENANT DES NANOPARTICULES DE POLYÉTHYLÈNE IMINE POUR APPLICATIONS TEXTILES

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Application
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Abstract (en)
[origin: WO2008049250A1] The invention relates to polymer fibers with microbicidal properties, comprising at least one polymer that can be electrospun and nanoparticle-containing quaternized polyethylenimine and to a method for producing said fibers. The use of the polyethylenimine nanoparticles (PEIN) allows polymers that can be electrospun to be provided with a microbicidal finish. A prerequisite for this is that the polyethylenimine nanoparticles are particles from derived polyethylenimine (PEI), since pure, underived PEI has no antibacterial effect. Preferably, quaternized polyethylenimine is used. The polymers that can be electrospun are coated with PEIN either during and/or after electrospinning. The polymer fibers that can be obtained by the method according to the invention can be used for textile fibers, for example for producing fibers for activity clothing, protective clothing for medical staff and protective clothing for patients, for medical drapes and dressings or for nonwovens or fiber mats for cell culture substrates.

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