

Title (en)
COATING OF SOLID SURFACES WITH ACTIVATED POLYHYDROXYPOLYMERS

Title (de)
BESCHICHTUNG VON FESTEN OBERFLÄCHEN MIT AKTIVIERTEN POLYHYDROXYPOLYMEREN

Title (fr)
REVETEMENT DE SURFACES SOLIDES AU MOYEN DE POLYHYDROXYPOLYMERES ACTIVES

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Abstract (en)
[origin: WO0005316A1] The present invention provides for a novel, simplified method for preparing solid surfaces coated with water-soluble activated polyhydroxypolymers. The method entails contacting a solid surface which contains substantially no amino, imino, or thiol groups with a coating solution comprising an activated polyhydroxypolymer so as to obtain bonding of the activated polyhydroxypolymer to the solid surface, followed by rinsing and optionally drying of the solid surface. The contacting reaction must take place in an aqueous medium having a pH between 1.5 and 10 and or an ion strength between 0.1 and 8. Preferred polyhydroxypolymers are naturally occurring, aldehyde group-free polymers such as polysaccharides, especially dextran, but also cellulose, agarose and starch. Also synthetic polymers, especially polyvinylalcohol are preferred. The water solubility of the polymer is preferably at least 10 mg/ml and its molecular weight is preferably at least 1,000. The activation of the polymer is preferably with functional groups selected from tresyl, maleimido, cyanogenbromide, tosyl, triflyl, pentafluorobenzenesulfonyl and vinylsulphone groups. Especially preferred activated polyhydroxypolymers are tresylated, tosylated, or maleimido activated dextran. The solid surface is preferably that of an organic polymer (such as polystyrene) or of glass, a ceramic or a metal. Also provided is the solid surfaces obtainable by the process as well as of the use of the surfaces in the immobilisation of biomolecules.

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