The dependence of the membrane structure on the non-woven forming the macropores in the 3D scaffolds preparation

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ABSTRACT

Three types of membrane structures with wide pores were compared in this study. One of the membranes was obtained from polyethersulfone using cellulose fibers as the macropore precursors. Two of the fibers were obtained from poly(L-lactide). As the macropore precursors polyvinylpyrrolidone (1.2 MDa) and pork gelatin non-woven were used, the influence of non-woven fibers on the structure of membranes was shown. Necessity of specific membrane structure application was explained. The choice of polymers and co-polymers with a range of biodegradation times can determine the scaffold type suitable for the age of a patient.

Keywords: Polysulfone membrane; Polyester membranes; Membrane structures; Biodegradable membranes; 3D scaffold

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