

**FILTER MATERIAL, METHOD FOR THE PRODUCTION THEREOF, A
FILTER AND FILTERING METHOD**

ABSTRACT

5 The invention concerns the production of filter materials for the purification and disinfection of water, water solutions and other liquids, as well as for sterilizing filtration of injections and other solutions, for concentration of biomolecules in physiological liquids, concentration and extraction of viruses, preparation of apyrogenic water, in biocatalytic diaphragm reactors.

10 The invention solves the problems of a new filter material production, characterized by high sorption properties, high retention efficiency of submicron electronegative particles, microorganisms, submicron non-polar particles and chemical contaminations, and, at the same time, characterized by low hydrodynamic resistance.

15 A base of filter material is the nonwoven organic synthetic polymeric fabric, modified by the aluminum hydroxide particles, fixed to the surface of base fibers for improvement of its sorption properties and for making it positively charged.

20 A method of filter material production comprises: applying the modifying composition onto the fibrous base in the form of organic nonwoven synthetic polymeric fabric, wherein said modifying composition comprises the particles of the aluminum-based material, hydrolysis thereof results to formation and fixation of the aluminum hydroxide particles to the base fibers.

25 A method of fluid filtration is carried out using the filter material as a non-woven organic synthetic polymeric fabric, to the fibers of which the aluminum hydroxide particles are fixed.