

Title (en)

METHOD AND DEVICE FOR THE PRODUCTION OF CELLULOSE FIBRES AND CELLULOSE FILAMENT YARNS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG VON CELLULOSEFASERN UND CELLULOSEFILAMENTGARNEN

Title (fr)

PROCEDE ET DISPOSITIF POUR PRODUIRE DES FIBRES DE CELLULOSE ET DES FILS CONTINUS DE CELLULOSE

Publication

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Application

**EP 01957604 A 20010306**

Priority

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Abstract (en)

[origin: US2003116882A1] Method for the production of cellulose fibers of -filaments from cellulose according to the dry-wet-extrusion method with aqueous amine oxides, especially N-methyl morpholine-N-oxide as solvent, where a) Cellulose or a cellulose mixture is dispersed in aqueous amine oxide with a Cuoxam-DP in the range of 250 to 3000, b) the dispersion obtained in this way is converted at increased temperature and under dehydration and shearing into a homogenous solution with a zero shear viscosity in the range of 600 to 6000 Pa.s and with a relaxation time in the range of 0.3 to 50 s, at 85° C. respectively, c) the solution is supplied to at least one spinning nozzle and first guided through an impaction chamber that is shared by one and/or the nozzle(s), where the dwelling time [of the solution] is at least equal to its relaxation time at the spinning temperature, d) the solution is formed in each spinning nozzle into at least one capillary and the capillary/capillaries of each nozzle are guided under draught through a non-precipitating medium and then through a spinning bath under precipitation of the cellulose threads, and e) the cellulose threads are separated from the spinning flows by deflection at the end of the spinning bath drawing frame and the threads are pulled, characterized in that in step d), the capillary assemblage(s) are impacted with a gas under an angle  $\alpha$  to the direction of the capillary run in a range of  $45^\circ < \alpha < 90^\circ$  shortly before they enter the spinning bath.

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