

Title (en)
CRIMPED FIBRE AND ITS PRODUCTION

Title (de)
GEKRÄUSELTER FASER UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)
FIBRE FRISÉE ET PRODUCTION DE CELLE-CI

Publication
EP 1327013 A1 20030716 (EN)

Application
EP 01986728 A 20011012

Priority
• GB 0104562 W 20011012
• GB 0025080 A 20001012

Abstract (en)
[origin: WO0231236A1] A method for the manufacture of lyocell fibre includes the steps of: (i) forming a solution of cellulose in an aqueous tertiary amine N-oxide solvent at a temperature above ambient temperature, the solution having from a trace (as herein defined) to 30 percent by weight of particles of a thermoplastic polymer having a glass transition temperature below the temperature at which the solution is formed, based on the weight of cellulose dispersed therein; ii) extruding the solution by way of a die into an aqueous coagulating bath, thereby forming lyocell fibre; iii) washing the fibre to remove residual amine N-oxide therefrom, and drying the fibre; and (iv) crimping the fibre so as to induce from 2.5 to 8 crimps/cm in the fibre. In the method according to the invention, the thermoplastic polymer is preferably dispersed throughout the lyocell in domains, and the maximum dimension of substantially all of the domains is preferably no more than 50 nanometres (nm). The invention provides lyocell fibre having a trace to 30 percent by weight of low melting thermoplastic polymer and 2.5 to 8 crimps per centimetre.

IPC 1-7
D01F 2/00

IPC 8 full level
D01F 2/00 (2006.01)

CPC (source: EP KR)
D01F 2/00 (2013.01 - EP KR); **D01F 11/02** (2013.01 - EP)

Citation (search report)
See references of WO 0231236A1

Cited by
WO2020207767A1; US11359309B2; US11767618B2

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
WO 0231236 A1 20020418; AU 9403001 A 20020422; CN 1214136 C 20050810; CN 1469943 A 20040121; DE 60125964 D1 20070222; DE 60125964 T2 20071018; EP 1327013 A1 20030716; EP 1327013 B1 20070110; GB 0025080 D0 20001129; GB 2368342 A 20020501; KR 100808724 B1 20080229; KR 20030061374 A 20030718

DOCDB simple family (application)
GB 0104562 W 20011012; AU 9403001 A 20011012; CN 01817363 A 20011012; DE 60125964 T 20011012; EP 01986728 A 20011012; GB 0025080 A 20001012; KR 20037004647 A 20030401