

Title (en)
PROCESS FOR PRODUCING CELLULOSE MULTI-FILAMENT WITH LOWER COEFFICIENT OF VARIATION OF SECTION DIAMETER

Title (de)
VERFAHREN ZUR HERSTELLUNG VON CELLULOSE-MULTIFILAMENT MIT GERINGEREM VARIATIONSKOEFFIZIENT DES QUERSCHNITTS

Title (fr)
PROCÉDÉ DE PRODUCTION D'UN FIL MULTIFILAMENT DE CELLULOSE POSSÉDANT UN COEFFICIENT PLUS FAIBLE DE VARIATION DU DIAMÈTRE DE LA SECTION

Publication
EP 2097562 A1 20090909 (EN)

Application
EP 07851381 A 20071210

Priority
• KR 2007006410 W 20071210
• KR 20060136132 A 20061228

Abstract (en)
[origin: WO2008082092A1] The present invention relates to a cellulose fiber having a highly homogeneous section, particularly to a cellulose fiber with lower Coefficient of Variation of section diameter (CV(%)). Specifically, the present invention relates to a cellulose fiber wherein Coefficient of Variation of section diameter (CV(%)) of a mono-filament constituting a multi-filament prepared by dissolving a cellulose powder in liquid N-methylmorpholine N-oxide(hereinafter referred to "NMMO") is below 2.5. According to the present invention, a lyocell multi-filament is produced comprising the steps of (i)preparing a spinning solution by homogeneously dispersing, swelling and dissolving cellulose powder in a NMMO solution; (ii)spinning the spinning solution into an air gap through a spinning nozzle; and (iii)coagulating the extruded-spun spinning solution in a coagulation bath. In particular, the coagulating step is adjusted by means of a coagulation coefficient in the range of 0.8 to 1.3 and the coagulation coefficient is expressed as $T_{D</SUB>C</SUB>}/T_{D</SUB>A</SUB>}$, $T_{D</SUB>C</SUB>} = T_{D</SUB>C</SUB>} + T_{A</SUB>C</SUB>}$ 90 and $T_{D</SUB>C</SUB>}$ and $T_{A</SUB>C</SUB>}$ mean the temperature of a spinning solution, the temperature of cooling air applied in an air gap and the temperature of a coagulation bath, respectively.

IPC 8 full level
D01F 2/00 (2006.01)

CPC (source: EP KR US)
D01D 5/088 (2013.01 - KR); **D01F 2/00** (2013.01 - EP KR US); **D10B 2505/022** (2013.01 - KR); **Y10T 428/2913** (2015.01 - EP US)

Cited by
WO2018015261A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2008082092 A1 20080710; CN 101578401 A 20091111; CN 101578401 B 20120201; EP 2097562 A1 20090909; EP 2097562 A4 20100825; EP 2097562 B1 20121128; JP 2010513739 A 20100430; JP 4593676 B2 20101208; KR 100824980 B1 20080428; US 2011003148 A1 20110106

DOCDB simple family (application)
KR 2007006410 W 20071210; CN 200780048455 A 20071210; EP 07851381 A 20071210; JP 2009542633 A 20071210; KR 20060136132 A 20061228; US 52136207 A 20071210