

Title (en)  
CONJUGATE ELECTROSPINNING DEVICES, CONJUGATE NONWOVEN AND FILAMENT COMPRISING NANOFIBERS PREPARED BY USING THE SAME

Title (de)  
KONJUGATELEKTROSPINVORRICHTUNGEN, SOWIE DAMIT HERGESTELLTE NANOFASERN ENTHALTENDES KONJUGATVLIES UND -FILAMENT

Title (fr)  
DISPOSITIF D ELECTROFILATURE CONJUGUEE, NON-TISSE ET FILAMENT CONJUGUES COMPRENANT DES NANOFIBRES AINSI PRODUITES

Publication  
**EP 1929074 A4 20090902 (EN)**

Application  
**EP 05856366 A 20050926**

Priority  
KR 2005003183 W 20050926

Abstract (en)  
[origin: WO2007035011A1] Discloses are a conjugate electrospinning devices for preparing fibers (nanofibers) having a nano-level thickness, and nanofibers prepared using the same. The conjugate electrospinning devices comprises: spinning dope main tanks (1); metering pumps (2); a nozzle block (4); nozzles (5) aligned on the nozzle block; a collector (7) for collecting fibers spun from the nozzle block; and a voltage generator (9) for applying a voltage to the nozzle block and the collector (7), wherein [I] nozzles for spinning two or more different kinds of spinning dope are aligned on a nozzle block (4) regularly or in random order in repetitive units at the same ratio or in different ratios, aligned in random order at a predetermined ratio, or aligned thereon in random order at a predetermined ratio, or aligned thereon repetitively; [II] the number of the spinning dope main tanks (1) is two or more; and [III] a spinning dope drop device (3) is arranged between the spinning dope main tanks (1) and the nozzle block (4). Since two or more different kinds of spinning dopes are combined and electrospun, and thus the physical properties (features) of a non-woven fabric and a filament can be easily managed by a simple process. Nanofibers and their non-woven fabrics can be mass produced because the fiber formation effects are maximized.

IPC 8 full level  
**D01D 5/00** (2006.01); **D01D 4/02** (2006.01); **D01D 5/04** (2006.01); **D01F 8/04** (2006.01); **D04H 1/728** (2012.01)

CPC (source: EP US)  
**D01D 5/0069** (2013.01 - EP US); **D01D 5/30** (2013.01 - EP US); **D01F 8/12** (2013.01 - EP US)

Citation (search report)

- [X] WO 2005073442 A1 20050811 - KIM HAK-YONG [KR], et al
- [E] WO 2005090653 A1 20050929 - KIM HAK-YONG [KR], et al
- [E] WO 2006135147 A1 20061221 - NAT UNIV CHONBUK IND COOP FOUND [KR], et al
- See references of WO 2007035011A1

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 NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2007035011 A1 20070329; WO 2007035011 A9 20070607**; EP 1929074 A1 20080611; EP 1929074 A4 20090902; JP 2009510272 A 20090312; JP 4769871 B2 20110907; US 2008102145 A1 20080501

DOCDB simple family (application)  
**KR 2005003183 W 20050926**; EP 05856366 A 20050926; JP 2008532155 A 20050926; US 72287305 A 20050926