

Title (en)
ELECTROSPINNING APPARATUS

Title (de)
ELEKTROSPINNINGVORRICHTUNG

Title (fr)
APPAREIL D'ÉLECTRO-FILATURE

Publication
EP 2987895 A4 20170329 (EN)

Application
EP 14785966 A 20140226

Priority

- KR 20130042247 A 20130417
- KR 20130042248 A 20130417
- KR 20130042250 A 20130417
- KR 20130042252 A 20130417
- KR 20130042253 A 20130417
- KR 2014001583 W 20140226

Abstract (en)
[origin: EP2987895A1] The present invention relates to an electrospinning apparatus, and the purpose of the present invention is to provide an electrospinning apparatus capable of: forming a buffer section between the respective units of the electrospinning apparatus and installing a vertically movable adjustment roller in the buffer section so as to adjust the transfer speed and time of a long sheet, which passes through the respective units, for each section and thus prevent the crumpling, sagging, snapping, breakage, and damage of the elongated sheet; solving the problem of the abnormal transfer of the elongated sheet which may occurs due to electrostatic attraction during electrospinning and, in a nanofiber production step, disposing an apparatus for detecting the sagging of the elongated sheet before and after a spinning zone, detecting the sagging of the elongated sheet, and transmitting the signal to an apparatus for assisting the transfer of the elongated sheet so as to adjust the transfer speed of the elongated sheet, which is fixed by means of electrostatic attraction to a collector, on the basis of the detected signal and automatically improve the sagging of the sheet and thereby effectively prevent the problem caused by the sagging of the sheet; and thus mass-producing nanofiber of uniform quality.

IPC 8 full level
D01D 5/00 (2006.01); **D01D 4/00** (2006.01); **D01D 13/00** (2006.01)

CPC (source: EP US)
D01D 5/0007 (2013.01 - EP US); **D01D 5/0061** (2013.01 - US); **D01D 13/00** (2013.01 - EP US)

Citation (search report)

- [X1] JP 2012164584 A 20120830 - UNIV SHINSHU, et al
- [I] US 2007036709 A1 20070215 - LASHMORE DAVID S [US], et al
- See references of WO 2014171624A1

Cited by
CN106319647A; CN107366030A; WO2022198770A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2987895 A1 20160224; EP 2987895 A4 20170329; US 2016060790 A1 20160303; WO 2014171624 A1 20141023

DOCDB simple family (application)
EP 14785966 A 20140226; KR 2014001583 W 20140226; US 201414784752 A 20140226