

Title (en)
STABILISATION OF POLYACRYLONITRILE PRECURSOR YARN

Title (de)
STABILISIERUNG VON POLYACRYLNITRIL-PRECURSORGARNEN

Title (fr)
STABILISATION DE FILS DE PRÉCURSEURS EN POLY-ACRYLONITRILE

Publication
EP 2475812 B1 20130605 (DE)

Application
EP 10749843 A 20100831

Priority

- EP 09170059 A 20090911
- EP 2010062674 W 20100831
- EP 10749843 A 20100831

Abstract (en)

[origin: WO2011029745A1] The invention relates to a method for stabilizing yarns made of polyacrylonitrile by way of chemical stabilizing reactions comprising the following steps: - presenting a polyacrylonitrile precursor organ, - providing an application device for treating the precursor yarn with high-frequency electromagnetic waves, comprising an applicator having an application chamber, means for generating the high-frequency electromagnetic waves, and means for feeding the same into the application chamber, - generating a field of the high-frequency electromagnetic waves in the application chamber, comprising regions having minimal electric field strength and regions having maximum electric field strength and adjusting the maximum electric field strength in the range of 3 to 150 kV/m, - continuously guiding the precursor organ through the application space and through the field of high-frequency electromagnetic waves, while - feeding a process gas through the application chamber at a flow speed of at least 0.1 m/s relative to the precursor yarn, wherein the temperature of the process gas is set within the range of 150 to 300 °C, so that said temperature lies above a critical minimum temperature and below a maximum temperature.

IPC 8 full level
D01F 6/18 (2006.01); **D01F 9/22** (2006.01); **D06M 10/04** (2006.01); **D06M 10/06** (2006.01)

CPC (source: EP US)
D01F 9/225 (2013.01 - EP US); **D06M 10/04** (2013.01 - EP US); **D06M 10/06** (2013.01 - EP US); **D06M 2101/28** (2013.01 - EP US)

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 SE SI SK SM TR

DOCDB simple family (publication)
WO 2011029745 A1 20110317; AR 078361 A1 20111102; AU 2010294347 A1 20120308; AU 2010294347 B2 20140626; BR 112012005159 A2 20160503; CA 2772580 A1 20110317; CN 102612576 A 20120725; CN 102612576 B 20140115; DK 2475812 T3 20130908; EP 2475812 A1 20120718; EP 2475812 B1 20130605; ES 2426612 T3 20131024; JP 2013504696 A 20130207; JP 5538545 B2 20140702; PT 2475812 E 20130903; TW 201129743 A 20110901; TW I480443 B 20150411; US 2012137446 A1 20120607

DOCDB simple family (application)
EP 2010062674 W 20100831; AR P100103329 A 20100910; AU 2010294347 A 20100831; BR 112012005159 A 20100831; CA 2772580 A 20100831; CN 201080039958 A 20100831; DK 10749843 T 20100831; EP 10749843 A 20100831; ES 10749843 T 20100831; JP 2012528313 A 20100831; PT 10749843 T 20100831; TW 99130259 A 20100908; US 201013390635 A 20100831