Title (en)

SHREDDING METHOD AND DEVICE FOR OBTAINING NANOCELLULOSE

Title (de

ZERKLEINERUNGSVERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG VON NANOCELLULOSE

Title (fr)

PROCÉDÉ DE DÉFIBRAGE ET DISPOSITIF D'OBTENTION DE NANOCELLULOSE

Publication

EP 4067567 A1 20221005 (EN)

Application

EP 20894510 A 20201125

Priority

- ES 201931057 A 20191128
- ES 2020070733 W 20201125

Abstract (en)

A shredding method and a device for obtaining nanocellulose are proposed. By means of the combination of several steps through which a solution (1) passes, said solution consisting of a mixture of bleached cellulose diluted in water in a proportion of between 1% and 6% of bleached cellulose which is subjected to a pressure of between 250 and 600 bar, in order to accelerate the solution (1) so as to reach a speed of about 50 m/s-250 m/s in a nozzle (3) through the passage (4) thereof, the solution (1) subsequently being expanded and decompressed, causing it to collide against same, and thereby obtaining the nanocellulose. The device is made up of the combination of a compression chamber (2), including a compressor (12), and a nozzle (3) having a passage (4), wherein on the opposite side of the nozzle (3), there is arranged another receiving chamber (7) which has a dead center (8) and a decompressor (13).

IPC 8 full level

D21B 1/04 (2006.01); D21B 1/12 (2006.01); D21H 11/16 (2006.01)

CPC (source: EP ES)

D21B 1/30 (2013.01 - EP ES); D21D 1/00 (2013.01 - EP)

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 4067567 A1 20221005**; **EP 4067567 A4 20230125**; **EP 4067567 B1 20240710**; ES 2829173 A1 20210528; FI 4067567 T3 20241008; WO 2021105538 A1 20210603

DOCDB simple family (application)

EP 20894510 Å 20201125; ES 201931057 A 20191128; ES 2020070733 W 20201125; FI 20894510 T 20201125