

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 A4 20230125 (EN)

Application
EP 20894510 A 20201125

Priority
• ES 201931057 A 20191128
• ES 2020070733 W 20201125

Abstract (en)
[origin: EP4067567A1] 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).

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CPC (source: EP ES)
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Citation (search report)
[A] NECHYPORCHUK OLEKSANDR ET AL: "Production of cellulose nanofibrils: A review of recent advances", INDUSTRIAL CROPS AND PRODUCTS, ELSEVIER, NL, vol. 93, 19 February 2016 (2016-02-19), pages 2 - 25, XP029750484, ISSN: 0926-6690, DOI: 10.1016/J.INDCROP.2016.02.016

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