

Title (en)
Process for bleaching lignocellulosic pulp

Title (de)
Verfahren zum Bleichen von lignocellulosischem Zellstoff

Title (fr)
Procédé de blanchiment de pâte lignocellulosique

Publication
EP 1304412 A3 20030625 (EN)

Application
EP 02028861 A 20000322

Priority
• EP 00302354 A 20000322
• JP 7754999 A 19990323
• JP 22906899 A 19990813

Abstract (en)
[origin: EP1039020A1] Lignocellulose pulp is bleached by bleaching a pulp in aqueous alkali solution with oxygen and treating the pulp with an enzyme, while a liquid fraction delivered from the enzyme treatment step is subjected to a penetration treatment through a separation membrane, for example, reverse osmosis membrane, to separate a permeated fraction from a non-permeated fraction; the permeated fraction is fed to the alkali-oxygen bleaching (oxygen delignification) step and is used as a liquid medium of the bleaching system; and non-permeated fraction is subjected to a xylooligosaccharide-collecting procedure. <IMAGE>

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IPC 8 full level
D21C 5/00 (2006.01); **D21C 9/147** (2006.01); **D21C 11/00** (2006.01)

CPC (source: EP)
D21C 5/005 (2013.01); **D21C 9/147** (2013.01); **D21C 11/0042** (2013.01)

Citation (search report)
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• [A] US 4908311 A 19990313 - SASAKI TAKASHI [JP], et al
• [A] EP 0301522 A2 19890201 - SHOWA DENKO KK [JP]
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• [A] DATABASE WPI 26 November 1990 Derwent World Patents Index; AN 1991-012408, XP002239390
• [A] PAICE M G ET AL: "Viscosity-enhancing bleaching of hardwood kraft pulp with xylanase from a clone gene", BIOTECHNOLOGY AND BIOENGINEERING. INCLUDING: SYMPOSIUM BIOTECHNOLOGY IN ENERGY PRODUCTION AND CONSERVATION, JOHN WILEY & SONS. NEW YORK, US, VOL. 32, PAGE(S) 235-239, ISSN: 0006-3592, XP002084960
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Designated contracting state (EPC)
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EP 1039020 A1 20000927; **EP 1039020 B1 20040218**; CA 2301371 A1 20000923; CA 2301371 C 20090901; CA 2627846 A1 20000923; CA 2627846 C 20110104; EP 1304412 A2 20030423; EP 1304412 A3 20030625; EP 1304412 B1 20050914

DOCDB simple family (application)
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