Title (en)

PROCESS FOR PRODUCING CELLULOSE FROM LIGNIN-CONTAINING RAW MATERIALS

Publication

EP 0327576 B1 19930303 (DE)

Application

EP 87907315 A 19871024

Priority

DE 3636208 A 19861024

Abstract (en)

[origin: DE3636208A1] A process and apparatus for transforming and/or extracting lignin or its decomposition products from lignin-cellulosic materials. For this purpose, a redox potential in the 200-500 mV range is set by adding oxidizing and/or reducing agents and/or salts and/or phenolic compounds to an acid aqueous solution of the lignin-containing raw materials. The lignin-decomposing reaction is initiated with bleaching by adding enzymes, micro-organisms, animal or vegetable cells. The reaction is maintained for several hours at a redox potential value oscillating around a constant value, at a constant temperature and with constant agitation.

IPC 1-7

C12S 3/04; D21C 3/00; D21C 9/10

IPC 8 full level

C08L 101/16 (2006.01); **C12N 1/22** (2006.01); **C12S 3/04** (2006.01); **C12S 3/08** (2006.01); **D21C 3/00** (2006.01); **D21C 3/22** (2006.01); **D21C 5/00** (2006.01); **D21C 7/00** (2006.01); **D21C 9/10** (2006.01)

IPC 8 main group level

D21C (2006.01)

CPC (source: EP)

D21C 3/228 (2013.01); **D21C 5/005** (2013.01)

Citation (examination)

- Abstract Bulletin of the Institute of Paper Chemistry, vol. 57, No. 7, January 1987, (Appleton, Wisconsin, US), P.J. Harvey et al.: "Lignin-degrading enzymes and the role of radical cations in lignin biodegradation", page 958, abstract 8575
- Abatract Bulletin of the Institute of Paper Chemistry, vol.57, No.7, January 1987, (Appleton, Wisconsin, US), M. Asther et al.: "Production of ligninolytic enzymes of Phanerochaete chrysosporium INA-12 in submerged agitated cultures", pages 956-957, abstract 8558
- Abstract Bulletin of the Institute of Paper Chemistry, vol. 57, No. 7, January 1987, (Appleton, Wisconsin, US), V.-B. Huynh et al.: "Oxidation of lignin model compounds by a manganese-dependent enzyme from phanerochaete chrysosporium as compared to chemically generated Mn(III)", page 959, abstract 8578
- Tappi, vol. 61, No. 6, June 1978, B.I. Fleming et al.: "Soda pulping with anthraquinone. A mechanism", pages 43-46

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

DE 3636208 A1 19880505; AT E86318 T1 19930315; AU 605215 B2 19910110; AU 8230387 A 19880525; BR 8707844 A 19891003; DE 3784515 D1 19930408; DK 170810 B1 19960122; DK 344888 A 19880623; DK 344888 D0 19880623; EP 0327576 A1 19890816; EP 0327576 B1 19930303; FI 891909 A0 19890421; FI 891909 A 19890421; FI 95289 B 19950929; FI 95289 C 19960110; HU 202938 B 19910429; HU T50894 A 19900328; JP H02500990 A 19900405; JP H0718108 B2 19950301; NO 175104 B 19940524; NO 175104 C 19940831; NO 882808 D0 19880624; NO 882808 L 19880624; WO 8803190 A1 19880505

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DE 3636208 A 19861024; AT 87907315 T 19871024; AU 8230387 A 19871024; BR 8707844 A 19871024; DE 3784515 T 19871024; DK 344888 A 19880623; EP 8700635 W 19871024; EP 87907315 A 19871024; FI 891909 A 19890421; HU 5787 A 19871024; HU 579087 A 19871024; JP 50675987 A 19871024; NO 882808 A 19880624