

Title (en)

Ozone-alkaline extraction bleaching without intermediate washing.

Title (de)

Bleiche durch Ozon-Alkaline Gewinnung ohne Zwischenwaschung.

Title (fr)

Blanchiment par ozone-extraction alcaline sans lavage intermédiaire.

Publication

EP 0520140 A1 19921230 (EN)

Application

EP 92103706 A 19920304

Priority

US 72178091 A 19910628

Abstract (en)

Enhanced brightness pulp, decreased color, and decreased COD discharge, are obtained during the bleaching of chemical cellulose (e.g. kraft) pulp by using a combined (ZE) stage, that is without washing between ozonation and alkaline extraction. Ozonation takes place preferably at acidic conditions and proceeds rapidly, while caustic extraction is at a pH of about 10-13. The (ZE)stage (29, 33) is preferably used in a bleaching sequence containing no more than five stages (25, 29, 31, 33 and 35), preferably (ZE)P(ZE)P, or (ZE)D(ZE)D, which may be preceded by a C/D stage, an O stage, an acid washing stage, or a nitrogen dioxide stage. The pulp produced can have a brightness of greater than 90 ISO, and ozonation can take place at a high consistency (greater than 25%), a medium consistency (about 6-18%), or low consistency (about 3% or less). If ozonation (10, 17) is at low consistency, dewatering (at 18) is effected prior to alkaline extraction (13,21). <IMAGE>

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D21C 9/10; D21C 9/153

IPC 8 full level

D21C 9/10 (2006.01); **D21C 9/153** (2006.01)

CPC (source: EP)

D21C 9/1057 (2013.01); **D21C 9/153** (2013.01)

Citation (search report)

- [A] FR 2265908 A1 19751024 - SCOTT PAPER CO [US]
- [A] CA 1112813 A 19811124 - INT PAPER CO
- [A] CA 1178756 A 19841204 - INT PAPER CO
- [A] ABSTRACT BULLETIN OF THE INSTITUTE OF PAPER CHEMISTRY vol. 55, no. 6, December 1984, APPLETON US page 705 RUTKOWSKI, J. 'Use of ozone in bleaching kraft pulp.'

Cited by

US5368688A; US5520783A

Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 0520140 A1 19921230; AU 1282692 A 19930107; BR 9202472 A 19930209; FI 922945 A0 19920625; FI 922945 A 19921229; MX 9203191 A 19921201; NO 922526 D0 19920626; NO 922526 L 19921229; ZA 921843 B 19921230

DOCDB simple family (application)

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