

Title (en)
Chlorine-free organosolv pulps

Title (de)
Chlorfreier Organosolv-Zellstoff

Title (fr)
Pâte à papier du type organosolv blanchie sans chlore

Publication
EP 0716182 A3 19961113 (EN)

Application
EP 95118395 A 19951122

Priority
US 34417094 A 19941123

Abstract (en)
[origin: EP0716182A2] This invention provides for a batch and continuous process with countercurrent recycle of bleaching filtrates for the delignification and bleaching of organosolv pulp. Oxygen delignification of organosolv pulp is achieved in excess of from about 50% to about 76% as measured by kappa numbers, while the pulp viscosity is minimally decreased in the range of from about 2 to about 5 cps. Bleaching of delignified pulp is achieved with peroxy compounds and ozone and pulp brightness of from about 82 to 88 ISO can be achieved with pulp containing zero level TOX from chlorine based bleaching chemicals and zero level of AOX in the bleach effluents. Higher brightness of from about 90 to about 92 ISO can also be achieved by addition of very low levels of chlorine based bleaching chemicals. Corresponding bleach effluents contain less than 200 ppm AOX. Bleaching filtrates can be recycled for pulp washing and for use with an organosolv pulping process which results in significant energy savings and mitigation if not elimination of pollution typically associated with chlorine based bleaching. This invention also relates to bleach pulp product derived from the process. <IMAGE>

IPC 1-7
D21C 9/10; D21C 9/147; D21C 9/153; D21C 9/16

IPC 8 full level
D21C 9/02 (2006.01); **D21C 9/10** (2006.01); **D21C 9/147** (2006.01); **D21C 9/153** (2006.01); **D21C 9/16** (2006.01)

CPC (source: EP)
D21C 9/1057 (2013.01); **D21C 9/147** (2013.01); **D21C 9/153** (2013.01); **D21C 9/16** (2013.01)

Citation (search report)
• [XY] EP 0480469 A2 19920415 - REPAP TECHNOLOGIES INC [US]
• [Y] DATABASE PAPERCHEM THE INSTITUTE OF PAPER SCIENCE AND TECHNOLOGY, ATLANTA, GA, US; YOUNG, J.: "Louisiana-Pacific's Samoa Mill Establishes TCF Pulp Production", XP002014022 & PULP PAP. 67, NO. 8: 61-63 (AUG. 1993). [ENGL.]
• [A] DATABASE PAPERCHEM THE INSTITUTE OF PAPER SCIENCE AND TECHNOLOGY, ATLANTA, GA, US; COLODETTE, J. L. ET AL: "Improving the Selectivity and Efficiency of Oxygen Bleaching Through the Use of Methanol", XP002014023 & PAPEL 54, NO. 4: 26-36 (APRIL 1993). [PORT.;ENGL. SUM.]

Cited by
CN103498376A; EP0863113A1; EP2473670A4; EP3249098A1; KR20150137078A; US9017514B2; US7976677B2; CN105008616A;
KR20150139503A; AU2014213691B2; RU2678895C2; WO2008076267A3; WO9839258A1; WO2008076268A3; US7976676B2; US9163358B2;
US10865519B2; US10151064B2; US6425974B1; US10138598B2; WO2014140852A3; WO2014122533A3; US9951470B2; US10174455B2;
US10294614B2; US10550516B2; US10753043B2; US9777432B2; US9909257B2; US9926666B2; US9970158B2; US10106927B2;
US10731293B2; US11111628B2; USRE49570E

Designated contracting state (EPC)
AT CH DE DK ES FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0716182 A2 19960612; EP 0716182 A3 19961113; AU 3900295 A 19960530; BR 9505502 A 19971028; CA 2163389 A1 19960524;
FI 955622 A0 19951122; FI 955622 A 19960524; JP H08260371 A 19961008; ZA 959906 B 19960718

DOCDB simple family (application)
EP 95118395 A 19951122; AU 3900295 A 19951123; BR 9505502 A 19951123; CA 2163389 A 19951121; FI 955622 A 19951122;
JP 30539195 A 19951124; ZA 959906 A 19951123