

Title (en)
METHOD AND APPARATUS FOR DEINKING PAPER

Title (de)
VERFAHREN UND VORRICHTUNG ZUM DEINKEN VON PAPIER

Title (fr)
PROCEDE ET DISPOSITIF DE DESENCRAGE DU PAPIER

Publication
EP 1068389 A1 20010117 (EN)

Application
EP 99912774 A 19990319

Priority
• US 9906181 W 19990319
• US 4433498 A 19980319

Abstract (en)
[origin: WO9947743A1] Deinking a sheet of paper by removing toner thereon including wetting the sheet of paper with a non-toxic, water soluble deinking solution which comprises water, for wetting the sheet of paper to swell the fibers of the sheet, a water soluble surfactant for lowering the surface tension of the water to enhance wetting of the sheet with the water, and no more than two water soluble solvents for softening the toner, without dissolving the toner, and for breaking the bond between the toner and the sheet; removing the softened toner from the sheet, creating toner particles; heating the sheet to vaporize the deinking solution, removing the solution from the sheet; and calendering the sheet of paper to return the sheet to the predetermined dimensions for immediate reuse.

IPC 1-7
D21C 5/02; B08B 3/08

IPC 8 full level
B08B 3/08 (2006.01); **D21C 5/02** (2006.01); **D21H 11/14** (2006.01); **G03G 21/00** (2006.01)

CPC (source: EP KR)
D21C 5/025 (2013.01 - EP KR); **D21H 11/14** (2013.01 - EP KR); **G03G 21/00** (2013.01 - EP KR); **Y02W 30/64** (2015.05 - EP)

Citation (search report)
See references of WO 9947743A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 9947743 A1 19990923; WO 9947743 A9 19991223; CA 2324280 A1 19990923; EP 1068389 A1 20010117; IL 138519 A0 20011031; JP 2002506934 A 20020305; KR 20010042030 A 20010525; TW 396062 B 20000701

DOCDB simple family (application)
US 9906181 W 19990319; CA 2324280 A 19990319; EP 99912774 A 19990319; IL 13851999 A 19990319; JP 2000536918 A 19990319; KR 20007010368 A 20000919; TW 88104334 A 19990319