

Title (en)
Optimized process for fibre or paper manufacturing

Title (de)
Optimierter Faser- oder Papierherstellungsprozess

Title (fr)
Procédé optimisé de fabrication des fibres ou de papier

Publication
EP 1035253 B1 20051123 (DE)

Application
EP 00100843 A 20000117

Priority
DE 19910910 A 19990311

Abstract (en)
[origin: EP1035253A1] To optimize the papermaking production process, involving a number of stages, models are used for the production conditions. At least the performance values which affect the target values for the end-product are registered on-line at each production stage. They are passed directly or indirectly to a control to be used to optimize the total process. The performance values are taken according to the raw materials together with other materials used in the different stages such as chemicals, additives and the energy required, as well as waste materials for disposal and emissions. In addition to the on-line register of performance values, the system has an off-line operation to determine measured and performance values for the on-line values to be optimized by computing models with discrete values. The separate process stages, or part-processes, are gathered into self-standing controlled and optimized modules. A compressed or a reduced number of performance values, formed in the modules, are used to control and optimize the complete process. At least a part of the target and performance values are converted on to a unified base by a computer, which gives the price per vol. unit. At least a part of the performance values is weighted before being used to control and optimize the total process. The use of the performance values in the whole process, converted on to a unified base, gives a bottleneck optimizing. The performance values are established from the on-line measured values by mathematical or management algorithms, using fuzzy logic and the like. The target values especially include production volumes, mechanical and/or optical characteristics and/or the fiber or paper price.

IPC 1-7
D21G 9/00

IPC 8 full level
D21G 9/00 (2006.01)

CPC (source: EP KR US)
D21G 9/0009 (2013.01 - EP KR US)

Cited by
CN104704168A; US7083049B2; US7085615B2; WO03107103A1

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

DOCDB simple family (publication)
EP 1035253 A1 20000913; EP 1035253 B1 20051123; AT E310849 T1 20051215; BR 0001281 A 20010116; CA 2298333 A1 20000911; DE 19910910 A1 20000928; DE 50011667 D1 20051229; ES 2249202 T3 20060401; KR 20000062824 A 20001025; US 6577916 B1 20030610

DOCDB simple family (application)
EP 00100843 A 20000117; AT 00100843 T 20000117; BR 0001281 A 20000310; CA 2298333 A 20000209; DE 19910910 A 19990311; DE 50011667 T 20000117; ES 00100843 T 20000117; KR 20000012058 A 20000310; US 52253600 A 20000310