

Title (en)
PULP BLEACHING PROCESSES

Title (de)
ZELLSTOFFBLEICHVERFAHREN

Title (fr)
MÉTHODE POUR BLANCHIR DE LA PÂTE

Publication
EP 1790771 A4 20121003 (EN)

Application
EP 05748560 A 20050608

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Abstract (en)
[origin: EP1790771A1] The present invention aims to further advance the acid treatment or irradiation technology for pulp to develop a bleaching process using smaller amounts of chlorine chemicals with higher efficiency as compared with conventional bleaching processes. It also aims to provide an excellent high brightness pulp having a low environmental impact and no discoloration as well as a paper containing it. The present invention provides a chlorine-free bleaching process with very high efficiency by irradiating a pulp washed after an acid treatment with UV light and/or visible light at a wavelength of 100 - 400 nm under alkaline conditions, preferably in a pH range of 10 - 13. The acid treatment can be performed under conditions of pH 1 - 6 and a temperature of 80 °C or more. The irradiation treatment can be performed in the presence of at least one compound selected from the group consisting of reducing agents, peroxides, and hydrogen-donating organic compounds. The present invention also provides a high brightness chemical pulp having an ISO brightness of 88% or more and a brightness loss of 1.0% or less in a specific fading test.

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Citation (search report)

- [X] US 4294654 A 19811013 - TURNER REX H
- [X] JP H06128890 A 19940510 - HONSHU PAPER CO LTD
- [X] WO 9402680 A1 19940203 - KAMYR INC [US]
- [X] WO 8400181 A1 19840119 - SCOTT PAPER CO [US]
- [A] JP 2002088673 A 20020327 - NAT INST OF ADV IND & TECHNOL

Cited by
CN104372704A

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FI SE

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