Title (en)
METHOD FOR CONTROLLING A PULPING PROCESS

Title (de)
VERFAHREN ZUR STEUERUNG EINES AUFSCHLUSSVERFAHRENS

Title (fr)
PROCEDE DE REGULATION D'UN PROCESSUS DE REDUCTION EN PÂTE

Publication
**EP 1846614 A1 20071024 (EN)**

Application
**EP 05818865 A 20051222**

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Abstract (en)
[origin: WO2006072653A1] The quality of the raw material in a pulping process, wood chips, varies due to variations in its origin. The variation in chip quality will result in variations in the cooked pulp as well as problems in the operation of a digester. The control of the digester takes place by feed-back control so that the process values in the digester are adjusted by measuring the quality of the produced pulp. The residence time of the pulp in the digester is several hours so that a corrective action affects the pulp quality with considerable delay. Conditions for a successful and economic cook are a correct cooking chemical dosage, correct concentrations of impregnation and cooking liquor, accurate control of the residence time and the temperature of the cooking process as well as accurate control of the flows in a chip column in relation to the flow properties of the chip column. In a method according to the invention, the size and shape of the chip pieces supplied to a cooking plant are measured, from the measured values the factors indicating the size and the shape of the chip particles are calculated, and the process values for the digester are anticipatorily controlled by means of a mathematical model, which model includes calculating the degree of packing in the digester and the dependency of the flow resistance of the liquid flowing through the chip column on the size and shape of the chip pieces. In the model, the Ergun equation among others is used, which equation expresses the pressure loss during the flow of a liquid through a volume filled with solid bodies.

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