

Title (en)
Determining the degree of cooking in a sulphite digester delignification.

Title (de)
Bestimmung des Kochgrads in einem Sulfitkocher für Delignifizierung.

Title (fr)
Détermination du degré de cuisson dans un digesteur au sulfite pour délignification.

Publication
EP 0110683 A1 19840613 (EN)

Application
EP 83307188 A 19831124

Priority
US 44427282 A 19821124

Abstract (en)
To determine the degree of cooking in a sulphite digester used for delignification, the digester temperature (T) and pressure (Pd) are sensed (12, 15) and utilised in a unit comprising a plurality of function blocks to calculate the digester reaction rate (k) according to the Arrhenius equation. This output is multiplied by a value proportional to the partial pressure (p SO₂) of sulphur dioxide in the digester to obtain a delignification rate value. The delignification rate value is integrated over time to determine the degree of cooking or Kappa Number. This number is compared to a desired set point value for the Kappa Number. When the actual Kappa number reaches the desired set point, a signal is produced which is provided to an operator. Function blocks spread over two controller modules are utilised to achieve the needed calculations in a simple manner without the use of an analog or digital computer.

IPC 1-7
D21C 7/12; **D21C 3/06**

IPC 8 full level
G01N 31/00 (2006.01); **D21C 3/04** (2006.01); **D21C 3/06** (2006.01); **D21C 3/22** (2006.01)

CPC (source: EP KR)
D21C 3/06 (2013.01 - KR); **D21C 3/228** (2013.01 - EP)

Citation (search report)

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DE FR GB IT

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EP 0110683 A1 19840613; **EP 0110683 B1 19870408**; AU 2149983 A 19840531; BR 8306460 A 19840626; CA 1198858 A 19860107; DE 3370840 D1 19870514; ES 527326 A0 19850516; ES 8505479 A1 19850516; HK 95287 A 19871224; IN 159330 B 19870502; JP S59137584 A 19840807; KR 840006688 A 19841201; KR 880000744 B1 19880504; SG 60987 G 19871023

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EP 83307188 A 19831124; AU 2149983 A 19831118; BR 8306460 A 19831124; CA 441793 A 19831123; DE 3370840 T 19831124; ES 527326 A 19831116; HK 95287 A 19871217; IN 1441CA1983 A 19831123; JP 21423683 A 19831116; KR 830005175 A 19831101; SG 60987 A 19870727