Title (en)

Method and device for separating particles in a fluid, in particular for purifying suspensions in paper making.

Title (de)

Verfahren und Vorrichtung zur Abscheidung von Partikeln in einem Fluidum, insbesondere zur Reinigung von Suspensionen in der Papierindustrie.

Title (fr)

Procédé et dispositif pour la séparation de particules dans un fluide, notamment pour l'épuration de suspensions papetières.

Publication

EP 0037347 A1 19811007 (FR)

Application

EP 81420035 A 19810313

Priority

FR 8007244 A 19800321

Abstract (en)

[origin: ES8206220A1] A process and device for selectively separating particles from a suspension is disclosed. The process involves: introducing the suspension into a rotating separation chamber in which the flow is regulated so that the angular velocity of the suspension is maintained slightly higher than the angular velocity of the wall of the chamber. The bulk of the flow of the suspension treated is removed from the separation chamber from a peripheral area. The following fractions are removed separately, simultaneously, and if necessary continuously. The heavy fraction is removed from a zone near of the sidewall the light fraction is removed from a zone nearer of the longitudinal axis of the chamber, than the heavy fraction outlet and if desired, an intermediate fraction may be removed from at least one separate intermediate zone between the light fraction outlet and the heavy fraction outlet. The apparatus comprises a separation chamber having a longitudinal axis, sidewalls and two ends inlets through the first end for introducing suspension and auxiliary fluid rotating means for deviating suspension and auxiliary fluid towards the sidewalls outlets for the heavy and the intermediate fractions in the second end of the separation zone rotating means to collect the effluents from areas nearer the sidewalls to their respective outlets and a light fraction outlet is provided in the first end of the separation chamber and is colinearly aligned with the longitudinal axis. Rotating means are provided to rotate the separation chamber around its longitudinal axis. Numerous alternative embodiments are described.

Abstract (fr)

Procédé pour la séparation d'une suspension de particules dans lequel: - on amène la suspension dans une enceinte de révolution (1) dont on règle l'écoulement de manière à maintenir un léger excès entre sa vitesse angulaire et la vitesse angulaire de la paroi de l'enceinte, - on recueille la plus grande partie du débit de la suspension traitée dans une zone périphérique du vortex formé, - et enfin, on recueille simultanément, et si nécessaire, en continu: · les composants lourds en périphérie de l'enceinte, · les composants légers au voisinage de l'axe longitudinal de l'enceinte, c'est-à-dire dans l'axe du vortex, · et la fraction intermediaire dans au moins une zone intermédiaire distincte. Application : industrie papetière.

IPC 1-7

B04B 11/06; B04C 9/00

IPC 8 full level

B04B 1/02 (2006.01); **B04B 1/00** (2006.01); **B04B 11/00** (2006.01); **B04B 11/06** (2006.01); **B04C 9/00** (2006.01)

CPC (source: EP US)

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