

Title (en)

APPARATUS FOR THE SEPARATION OF HEAVIER FROM LIGHTER FRACTIONS IN AQUEOUS SLURRIES BY MEANS OF CENTRIFUGAL FORCE

Title (de)

VORRICHTUNG ZUM ABSCHEIDEN DER SCHWEREREN VON DEN LEICHTEREN ANTEILEN WÄSSRIGER TRÜBEN MITTELS ZENTRIFUGALKRAFTWIRKUNG

Title (fr)

DISPOSITIF POUR SEPARER LES FRACTIONS PLUS LOURDES DES FRACTIONS PLUS LEGERES D'EAUX BOUEUSES PAR EFFET DE FORCE CENTRIFUGE

Publication

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Application

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Abstract (en)

[origin: WO9740944A1] The invention relates to a process and apparatus for the separation of heavier from lighter fractions in aqueous slurries by means of centrifugal force. The slurry is made to spin in the separation chamber under the influence of the differential pressure generated between the inlet and outlet of a cyclone separation chamber (4). The differential pressure, which can amount to several bar, is generated by means of a pressure increasing stage in the form of a transport rotor device (20) which acts in conjunction with a stator arrangement (22); essentially this takes place immediately in front of the inlet of the slurry into the separation chamber (4). The rotor blades of the cyclone rotor device (10) as the rotor blades of the transport rotor device (20) can be mounted on the same rotary shaft (5) in order to induce additional rotary force into the slurry. The separation of floatable fractions in aqueous slurries is effected by the presence of micro gas bubbles introduced into the separation chamber (4). The separated floatable fractions can be removed from the gas bubbles to which they adhere by means of an anti-foaming device driven by the rotary shaft (5) of the transport rotor device (20).

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