

Title (en)

A DEVICE FOR THE SEPARATION OF A LIQUID, ESPECIALLY WHOLE BLOOD.

Title (de)

VORRICHTUNG ZUM ABSCHIEDEN EINER FLÜSSIGKEIT, INSBESONDERE VON BLUT.

Title (fr)

DISPOSITIF DE SEPARATION D'UN LIQUIDE EN FRACTIONS, SPECIALEMENT DE SANG ENTIER.

Publication

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Application

EP 79900655 A 19801215

Priority

SE 7900128 W 19790606

Abstract (en)

[origin: WO8002653A1] Device for the centrifugal separation of a liquid, especially whole blood, into fractions having different densities. Said device comprises a rotatable separation unit (5) comprising a separation chamber (5'), and a transferring element (2) in fluid communication with said chamber. The transferring of said liquid and said separated fractions between a source for said liquid and said separation chamber is realized without use of rotating couplings in that one end (3) of said transferring element is held fixedly, while the other end (4) thereof, i.e. the end which is next to said separation chamber, is rotatably connected to said chamber. As well said separation unit as said transferring element thereby will perform a rotation, when said separation chamber is rotating around an axis through said one end of said transferring element. Said transferring element (2) is thereby prevented from twisting or winding. More precisely, said transferring element (2) and said separation unit (5) will rotate one revolution (secondary rotation) per revolution made by the separation unit (5) when rotating (primary rotation) around said axis through said fixedly held end (3). By suitable choice of ratio between radius (r) of said separation chamber and radius (R) of said primary rotation, i.e. the distance between said separation chamber and the axis through said fixedly held end, said secondary rotation may be used to separate said liquid already before said liquid enters into said separation chamber (5').

Abstract (fr)

Dispositif de separation centrifuge d'un liquide, specialement du sang entier, en fractions ayant des densites differentes. Ce dispositif comprend une unite de separation rotative (5) ayant une chambre de separation (5') et un element de transfert (2) en communication avec ladite chambre. Le transfert du liquide et des fractions separees entre une source de ce liquide et la chambre de separation s'effectue sans utiliser d'accouplements rotatifs dans l'extremite (3) dudit element de transfert qui est maintenu fixe tandis que son autre extremite (4), c.a.d. l'extremite adjacente a la chambre de separation, est reliee de maniere rotative a ladite chambre. De meme que l'element de transfert, l'unite de separation effectue une rotation lorsque ladite chambre de separation tourne autour d'un axe passant par l'extremite (3) dudit element de transfert. On empeche ainsi l'element de transfert (2) de se tordre ou de s'enrouler. Plus precisement, cette element de transfert (2) et cette unite de separation (5) font un tour (rotation secondaire) pour chaque tour effectue par l'unite de separation (5) lorsqu'elle tourne (rotation primaire) autour de l'axe passant par ladite extremite fixe (3). Par un choix approprie du rapport entre le rayon (r) de la chambre de separation et le rayon (R) de ladite rotation primaire, c.a.d. la distance entre la chambre de separation et l'axe passant par ladite extremite fixe, la rotation secondaire peut etre utilisee pour separer le liquide avant que se celui-ci n'entre dans la chambre de separation (5').

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