

Title (en)

Process and apparatus for separating liquids and solids, in particular fruit juices.

Title (de)

Verfahren und Vorrichtung zum Trennen von Feststoff-/Flüssigkeitsanteilen, insbesondere von Fruchtsäften.

Title (fr)

Procédé et dispositif pour séparer des fractions liquides et solides, notamment de jus de fruits.

Publication

EP 0211706 A2 19870225 (FR)

Application

EP 86401388 A 19860624

Priority

- FR 8509689 A 19850626
- FR 8515712 A 19851023
- FR 8517905 A 19851202

Abstract (en)

1. A method of separating, by pressing intimately combined liquid and solid fractions in the form of a heterogeneous mixture, such as for example, juices, pulps, kernels, pips stalks and vegetable elements of fruit such as harvested grapes, of the type in which a vessel (14) comprising sidewalls traversed by narrow passages (15) is charged in a so-called "upstream-downstream" direction via a so-called input end with heterogeneous mixture, then the infeed of mixture is interrupted, then a pressing action is induced by effecting a relative linear displacement between the vessel (14) and a non-rotary element (10-13, 103) forming a piston situated before the input end so that this element (10-13, 103) penetrates into the volume (14) from upstream to downstream, characterised in that an opposing retaining force, that is to say directed from downstream to upstream co-axially with the vessel (14), is engendered at its so-called outlet end opposite the preceding end and acting on the fractions of heterogeneous mixture fed in, which are thus agglomerated progressively into a cake of solid fractions, whilst forming an annular outlet space, also coaxial, whereupon after the pressing of the heterogeneous mixture simultaneously causing the emergence of at least a part of the liquid fractions through the walls of the vessel (14) and the discharge of a part of the cake of solid fractions through the outlet space, the relative linear displacement is then stopped, after which a renewed input of mixture is effected and its pressing in the vessel (14) is effected at a pressure matched to the value of the outlet retaining force and so on in successive cycles.

Abstract (fr)

Le procédé est destiné à séparer par pressage des fractions liquides et des fractions solides intimement associées en un mélange hétérogène comme le sont, par exemple, les jus, pulpes, noyaux, pépins, pédoncules et éléments végétaux de fruits tels que du raisin vendangé. Il est caractérisé en ce que l'on remplit une capacité 14 à parois filtrantes dans un sens dit "amont-aval" et que l'on déplace cette capacité 14 dans le sens contraire, "aval-amont" pour que le mélange à presser soit comprimé entre une pièce non tournante 10-13 et un cône de sortie 50 qui laisse subsister un passage annulaire autour de lui.

IPC 1-7

B30B 9/02; **B30B 9/06**; **B30B 9/18**; **A23L 2/04**

IPC 8 full level

B30B 9/02 (2006.01); **B30B 9/06** (2006.01)

CPC (source: EP)

B30B 9/02 (2013.01); **B30B 9/062** (2013.01); **B30B 9/121** (2013.01); **B30B 9/127** (2013.01); **B30B 9/18** (2013.01)

Cited by

ITRM20080361A1; FR2677921A1; CN116570958A; US5390592A; US5406883A; EP0565823A1; EP0565824A1; WO2010001429A1

Designated contracting state (EPC)

AT CH DE IT LI

DOCDB simple family (publication)

EP 0211706 A2 19870225; **EP 0211706 A3 19870318**; **EP 0211706 B1 19900829**; CA 1307443 C 19920915; DE 3673724 D1 19901004; ES 2000914 A6 19880401

DOCDB simple family (application)

EP 86401388 A 19860624; CA 512601 A 19860626; DE 3673724 T 19860624; ES 8600012 A 19860626