

Publication

EP 0535475 A3 19940803

Application

EP 92116057 A 19920919

Priority

DE 4132892 A 19911004

Abstract (en)

[origin: EP0535475A2] Suitable for fractionating mixtures of meltable high molecular weight organic substances, especially fats, are crystallisation in solvents, wetting agent fractionation and dry fractionation. In the latter process, the mixture of substances is initially melted and subsequently the crystal-containing suspension is fractionated into a solid and a liquid fraction, e.g. a stearin fraction and an olein fraction. This process is to be improved by following the melting by passing through the three phases of precooling, formation of crystal nuclei and crystal maturation and, during this, in each case the mixture of substances is subjected to a particular thermal or thermal and mechanical treatment which is adapted to the particular phase. The thermal treatment is carried out by controlling the temperature of the cooling medium, the temperature of the mixture of substances and the difference in temperature between mixture of substances and cooling medium in two or more consecutive cooling devices in which the heat flux is controlled in a particular way. Provided for the mechanical treatment are, for example, shear processes which are generated with fixed shear rates by moving fittings inside the cooling devices.

IPC 1-7

C11B 7/00

IPC 8 full level

C11B 7/00 (2006.01)

CPC (source: EP US)

C11B 7/0075 (2013.01 - EP US)

Citation (search report)

- [X] EP 0262113 A2 19880330 - TIRTIAUX FRACTIONNEMENT [BE]
- [X] GB 2180253 A 19870325 - ALFA LAVAL FOOD & DAIRY ENG
- [DA] GB 2220672 A 19900117 - FUJI OIL CO LTD [JP]
- [DA] EP 0139177 A1 19850502 - NESTLE SA [CH]
- [DA] FR 2369800 A1 19780602 - LESTER & CO [GB]
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- [A] PUSHPINDER S. PURI: "winterization of oils and fats", JOURNAL OF THE AMERICAN OIL CHEMISTS' SOCIETY, vol. 57, no. 11, November 1980 (1980-11-01), CHAMPAIGN US, pages 848 - 850
- [A] F. TIRTIAUX: "Le fractionnement industriel des corps gras par cristallisation dirigée- procédé Tirtiaux", OLEAGINEUX, vol. 31, no. 6, 1976, pages 279 - 285
- [A] TH. WILLNER ET AL.: "Herstellung von Kakaobutterersatz durch fraktionierte Speiseölkristallisation", FETT WISSENSCHAFT TECHNOLOGIE-FAT SCIENCE TECHNOLOGY, vol. 91, no. 14, December 1989 (1989-12-01), LEINFELDEN ECHTERDINGEN DE, pages 586 - 592

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US5874599A; AU702761B2; US5602265A; WO9605279A1

Designated contracting state (EPC)

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