

Title (en)

METHOD AND PLANT FOR SOLVENT-FREE MICROWAVE EXTRACTION OF NATURAL PRODUCTS

Title (de)

VERFAHREN UND EINRICHTUNG ZU LÖSUNGSMITTELFREIER EXTRAKTION VON NATURSTOFFE MITTELS MIKROWELLEN

Title (fr)

PROCEDE ET INSTALLATION D'EXTRACTION SANS SOLVANT DE PRODUITS NATURELS PAR MICRO-ONDES

Publication

EP 0698076 B1 19980114 (FR)

Application

EP 94915607 A 19940510

Priority

- FR 9400551 W 19940510
- FR 9305810 A 19930511

Abstract (en)

[origin: WO9426853A1] The microwave extraction method involves the steps of placing the biological material in an enclosure without any solvent whatsoever and exposing it to microwave radiation to free at least some of the natural product, and then separating the residual biological material from the extracted natural product. Additionally, it involves the steps of applying reduced pressure in said enclosure during said microwave radiation stage and heating the enclosure during at least most of the microwave radiation stage to compensate the temperature drop resulting from water evaporation from the biological material.

IPC 1-7

C11B 9/02; B01D 11/02

IPC 8 full level

C11B 1/10 (2006.01); **C11B 9/02** (2006.01)

CPC (source: EP)

C11B 9/027 (2013.01)

Cited by

EP1618798A1; CN106190574A; FR2955331A1; FR3003181A1; WO2012156361A1; WO2012056141A2; WO2019106313A1; FR3017309A1; FR3099991A1; EP1629725A1; FR3115695A1; TWI601565B; FR3113248A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 9426853 A1 19941124; AT E162211 T1 19980115; AU 6725194 A 19941212; AU 682035 B2 19970918; BG 100187 A 19960531; BG 62367 B1 19990930; BR 9406717 A 19960206; CA 2161127 A1 19941124; CA 2161127 C 20050927; CN 1059920 C 20001227; CN 1125461 A 19960626; DE 69407965 D1 19980219; DE 69407965 T2 19980910; DK 0698076 T3 19980914; EP 0698076 A1 19960228; EP 0698076 B1 19980114; ES 2114688 T3 19980601; FR 2705035 A1 19941118; FR 2705035 B1 19950804; GR 3026603 T3 19980731; HU 218708 B 20001128; HU 9503230 D0 19960129; HU T75578 A 19970528; JP H08512337 A 19961224; RU 2115700 C1 19980720

DOCDB simple family (application)

FR 9400551 W 19940510; AT 94915607 T 19940510; AU 6725194 A 19940510; BG 10018795 A 19951204; BR 9406717 A 19940510; CA 2161127 A 19940510; CN 94192507 A 19940510; DE 69407965 T 19940510; DK 94915607 T 19940510; EP 94915607 A 19940510; ES 94915607 T 19940510; FR 9305810 A 19930511; GR 980400799 T 19980410; HU 9503230 A 19940510; JP 52506094 A 19940510; RU 95122234 A 19940510