

Title (en)

METHOD OF PRODUCING -g(a),-g(a)-TREHALOSE.

Title (de)

VERFAHREN ZUR HERSTELLUNG VON ALPHA, ALPHA TREHALOSE.

Title (fr)

PROCEDE DE PRODUCTION DE -g(a),-g(a)-TREHALOSE.

Publication

EP 0674717 A1 19951004 (EN)

Application

EP 94926769 A 19940923

Priority

- CZ 9400022 W 19940923
- CZ 202593 A 19930928

Abstract (en)

[origin: WO9509243A1] The method for producing crystalline alpha , alpha -trehalose by isolation from baker's yeast consists in the extraction of baker's yeast with ethanol of concentration 70 to 96 volume %, vacuum concentration of the obtained extract to the concentration of alpha , alpha -trehalose 2 to 30 weight %, after removing the solid portion by filtration, and of the following membrane filtration process consisting of ultrafiltration through an ultrafiltration membrane with the separation limit of molecular masses higher than 500 and, if desirable, of the preceding microfiltration through a microfiltration membrane with the mean pore diameter ranging from 0.05 to 5 mu m, preferably from 0.05 to 0.15 mu m, where the obtained clear solution, after decolourizing with activated charcoal, is brought into contact with an ion exchanger in H<+> cycle and then with an ion exchanger in OH<-> cycle and the resulting demineralized solution is concentrated in vacuum to the concentration of 40 to 85 weight % and alpha , alpha -trehalose crystallizing, after addition of ethanol in the amount of 0.5 to 1.5 parts per part of alpha , alpha -trehalose, is isolated and recrystallized from ethanol after repeated demineralization. Another object of the method according to the invention consists in carrying out the continuous ultrafiltration through an ultrafiltration membrane with the separation limit of molecular masses higher than 500 and, if desirable, carrying out the preceding microfiltration through a microfiltration membrane with mean pore diameter ranging from 0.05 to 5 mu m, preferably from 0.05 to 0.15 mu m. In the method carried out according to the invention, a styrene-divinylbenzene copolymer with strongly acid sulfo groups is used as a cation exchanger and a styrene-divinylbenzene copolymer with quaternary dimethylhydroxyethylammonium exchanging groups as an anion exchanger. Disaccharide alpha , alpha -trehalose produced by the method according to the invention is an important raw material or intermediate in pharmacy, food industry and biochemical research.

IPC 1-7

C12P 19/12

IPC 8 full level

C07H 3/04 (2006.01); **C07B 63/00** (2006.01); **C12P 19/12** (2006.01); **C12R 1/865** (2006.01)

CPC (source: EP)

C12P 19/12 (2013.01)

Citation (search report)

See references of WO 9509243A1

Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

WO 9509243 A1 19950406; CA 2150256 A1 19950406; CZ 202593 A3 19961016; CZ 281723 B6 19961211; EP 0674717 A1 19951004; JP H08506248 A 19960709; SK 279610 B6 19990111; SK 69795 A3 19960508

DOCDB simple family (application)

CZ 9400022 W 19940923; CA 2150256 A 19940923; CZ 202593 A 19930928; EP 94926769 A 19940923; JP 51003995 A 19940923; SK 69795 A 19940923