Title (en)

SEMI-CONTINUOUS FERMENTATION PROCESS

Title (de)

SEMIKONTINUIERLICHES FERMENTATIONSVERFAHREN

Title (fr)

PROCESSUS DE FERMENTATION SEMI-CONTINU

Publication

EP 1924682 A1 20080528 (EN)

Application

EP 06793060 A 20060829

Priority

- EP 2006065779 W 20060829
- DE 102005041526 A 20050831

Abstract (en)

[origin: DE102005041526A1] The Semi-continuous biosynthesis of biomolecule by bacteria, yeast and cell line in fermentation container, comprises supplying (a) a culture medium into the fermentation containers, inoculating (c) the culture medium through aseptic supply of the microorganism, subjecting the fermentation container to a heated and ultrasonically irradiated fermentation bath containing dissolved oxygen or oxygen mixture, and removing (f) the containers from the bath. The oxygen mixture contains carbon dioxide, methane and/or hydrogen sulfide with an inert gas, and the bath contains a substance. The Semi-continuous biosynthesis of biomolecule by bacteria, yeast and cell line in fermentation containers, comprises supplying (a) a culture medium into the fermentation containers, inoculating (c) the culture medium through aseptic supply of the microorganism, subjecting the fermentation container to a heated and ultrasonically irradiated fermentation bath containing dissolved oxygen or oxygen mixture, and removing (f) the containers from the bath. The oxygen mixture contains carbon dioxide, methane and/or hydrogen sulfide with an inert gas, and the bath contains a substance. The containers are closed (b) in such a way that a gas transfer with the environment takes place by a gas permeable outer wall of the containers, and are sterilized. The gas or the gas mixture serves to register the oxygen for an aerobic fermentation and/or to discharge the oxygen in an aerobic fermentation formed fluid by-products. The fermentation bath is injected into the containers at a pressure equally large as or larger than the atmospheric pressure. The volume of each container is at most 1000 ml and/or the ratio of external surface of each container to its internal volume is 0.5 cm 2>/ml.

IPC 8 full level

C12M 1/40 (2006.01); **C12P 21/00** (2006.01)

CPC (source: EP)

C12M 23/14 (2013.01); **C12M 23/24** (2013.01); **C12M 23/44** (2013.01); **C12P 21/02** (2013.01)

Citation (search report)

See references of WO 2007025968A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

DE 102005041526 A1 20070301; EP 1924682 A1 20080528; JP 2009505672 A 20090212; WO 2007025968 A1 20070308

DOCDB simple family (application)

DE 102005041526 A 20050831; EP 06793060 A 20060829; EP 2006065779 W 20060829; JP 2008528501 A 20060829