

Title (en)

PROCESS AND DEVICE FOR FREEZING OF CELL SUSPENSIONS

Title (de)

VERFAHREN UND VORRICHTUNG ZUM GEFRIEREN VON ZELLSUSPENSIONEN

Title (fr)

PROCEDE ET DISPOSITIF POUR CONGELER DES SUSPENSIONS DE CELLULES

Publication

**EP 0897517 B1 20010725 (DE)**

Application

**EP 97923876 A 19970512**

Priority

- DE 19619152 A 19960511
- EP 9702424 W 19970512

Abstract (en)

[origin: DE19619152A1] The invention relates to a process and a device for freezing of cell suspensions. The cell suspensions, which are enclosed in, preferably, flexible packaging (1) and between contact surfaces (12, 13) which are brought to the temperature of a subcooled refrigerant, are deep-frozen in that said refrigerant which is not yet boiling absorbs the heat of the packaged cell suspensions. The process is carried out in such a manner that the refrigerant bubbles occurring during nucleate boiling are recondensed substantially without net vapour formation in the refrigerant.

IPC 1-7

**F25D 3/10**; **A01N 1/00**

IPC 8 full level

**A01N 1/00** (2006.01); **F25D 3/10** (2006.01); **F25D 31/00** (2006.01)

CPC (source: EP)

**F25D 3/10** (2013.01); **F25D 31/001** (2013.01); **F25D 2400/30** (2013.01)

Designated contracting state (EPC)

DE ES FR GB IT NL

DOCDB simple family (publication)

**DE 19619152 A1 19971127**; AU 2953597 A 19971205; DE 59704132 D1 20010830; EP 0897517 A1 19990224; EP 0897517 B1 20010725; WO 9743586 A1 19971120

DOCDB simple family (application)

**DE 19619152 A 19960511**; AU 2953597 A 19970512; DE 59704132 T 19970512; EP 9702424 W 19970512; EP 97923876 A 19970512