

Lady Cortes

Search history

- Search 1: TAC=(Freeze-drying process, double wall, rotating drum, apparatus) (Results 0)
- Search 2: TAC=(Freeze-drying process, double wall, rotating drum, apparatus) (Results 0)
- Search 3: TAC=(Freeze-drying, double wall, rotating drum, apparatus) (Results 0)
- Search 4: TAC=((Freeze-drying) and (double wall) and (rotating drum)) (Results 0)
- Search 5: TAC=((Freeze drying) and (double wall) and (rotating drum)) (Results 0)
- Search 6: PN=(WO2013050156) (Results 1)
- Search 7: [SP]: 1. a process line for the production of freeze-dried particles under closed conditions, the process line comprising at least the following separate devices: a spray chamber for droplet generation and freeze congealing of the liquid droplets to form particles and a bulk freeze-dryer for freeze drying the particles, the freeze-dryer comprising a rotary drum for receiving the particles wherein a transfer section is provided for a product transfer from the spray chamber to the freeze-dryer, and for the production of the particles under end-to-end closed conditions each of the devices and of the transfer section is separately adapted for operation preserving sterility of the product to be freeze-dried and/or containment. 2. the process line according to claim 1, wherein the transfer section permanently interconnects the two devices to form an integrated process line for the production of the particles under end-to-end closed conditions. 3. the process line according to claim 2, wherein the transfer section comprises means for operatively separating the two connected devices from each other such that at least one of the two devices is operable under closed conditions separately from the other device without affecting the integrity of the process line. 4. the process line according to any one of the preceding claims, at least one of the process devices and the transfer section comprises a confining wall which is adapted for providing predetermined process conditions within a confined process volume, wherein the confining wall is adapted for isolating the process volume and an environment of the process device from each other. 5. the process line according to any one of the preceding claims, wherein the process devices and the transfer section form an integrated process line providing end-to-end protection of sterility of the product and/or end-to-end containment of the product. 6. the process line according to any one of the preceding claims, wherein the freeze-dryer is adapted for separated operation under closed conditions, the separated operation including at least one of particle freeze-drying, cleaning of the freeze-dryer, and sterilization of the freeze-dryer. 7. the process line according to any one of the preceding claims, wherein the integrated process line comprises as further device a product handling device adapted for at least one of discharging the product from the process line, taking product samples, and manipulating the product under closed conditions. 8. the process line according to any one of the preceding claims, wherein the spray chamber comprises at least one temperature-controlled wall for freeze congealing the liquid droplets. 9. the process line according to any one of the preceding claims, wherein the freeze-dryer is a vacuum freeze-dryer. 10. the process line according to any one of the preceding claims, wherein at least one of the one or more transfer sections of the process line comprises at least one temperature-controlled wall. 11. the process line according to any one of the preceding claims, wherein the entire process line is adapted for cleaning in place "cip" and/or sterilization in place "sip". 12. a process for the production of freeze-dried particles under closed conditions performed by a process line according to any one of the preceding claims, the process comprising at least the following process steps: generating liquid droplets and freeze congealing of the liquid droplets to form particles in a spray chamber transferring the product under closed conditions from the spray chamber to a freeze-dryer via a transfer section and freeze drying the particles as bulkware in the freeze-dryer, the freeze-dryer comprising a rotary drum for receiving the particles wherein for the production of the particles under end-to-end closed conditions each of the devices and of the transfer section is separately operated under operation preserving sterility of the product to be freeze-dried and/or containment. 13. the process according to claim 12, wherein the product transfer to the freeze-dryer is performed in parallel to droplet generation and freeze-congealing in the spray chamber. 14. the process according to any one of claim 12 or 13, comprising a step of operatively separating spray chamber and freeze-dryer to perform cip and/or sip in one of the separated

devices. 15. a process for preparing a vaccine composition comprising one or more antigens in the form of freeze-dried particles comprising: freeze-drying a liquid bulk solution comprising said one or more antigens according to the process line as described in claims 1 to 14 and filling the freeze-dried particles obtained into a recipient. 16. a process for preparing an adjuvant containing vaccine composition comprising one or more antigens in the form of freeze-dried particles comprising: a. freeze-drying a liquid bulk solution comprising said adjuvant and said one or more antigens according to the process line as described in claims 1 to 14, and b. filling the freeze-dried particles obtained into a recipient or alternatively when the liquid bulk solution of a) does not comprise said adjuvant, c. freeze-drying separately a liquid bulk of said adjuvant and a liquid bulk solution comprising said one or more antigens according to the process line as described in claims 1 to 14, d. blending the freeze dried particles of said one ore more antigens with the freeze dried particles of adjuvant, and e. filling the blending of freeze-dried particles into a recipient. 17. a process according to claim 15 or 16, wherein all the steps of the process line are carried out under sterile conditions. 18. a process according to claims 15 to 17, wherein the freeze-dried particles are sterile. 19. a vaccine composition under the form of freeze-dried particles obtained by a process according to any of claims 12 to 18. (Results 50)

Search
8: TAC=(Freeze-drying) (Results 12376)

Search
9: TAC=(Freeze-drying) (Results 12376)

Search
10: TAC=(rotating drum) (Results 20362)

Search
11: TAC=(9 and 10) (Results 5)

Title: Method and apparatus for freezing liquids to be used in a freeze-drying process

Abstract: Source: US3162019A (Claim 1) 1. A method of freezing material which comprises the steps of providing a low temperature liquid bath having a boiling point below the freezing point of the material to be frozen, feeding at a low impingement velocity small portions of the material to be frozen onto the surface of said bath and suspending said portions in proximity to the surface of the bath by utilizing heat in said portions to boil the liquid and evolve a gas therefrom until said portions are frozen into discrete particles having a low temperature approximately equal to said liquid bath, the specific gravity of said material and said liquid being such that said particles thereafter fall to the bottom of said bath.

Classifications:

International (IPC 8-9): A23L3/36

F26B5/06 (Advanced/Invention);

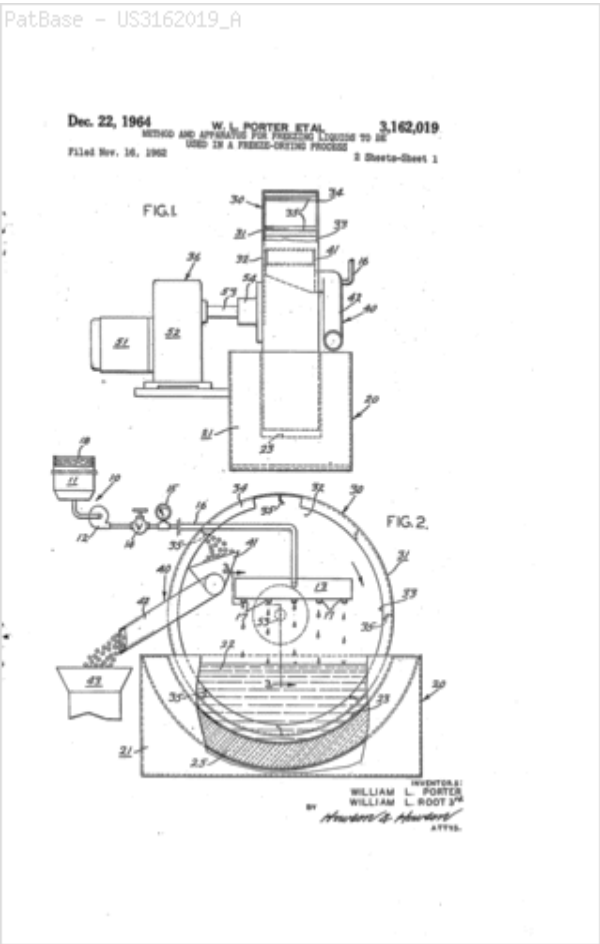
A23L3/36 F26B5/04 (Core/Invention)

International (IPC 1-7): F26B5/06

CPC: A23L3/361 F26B5/065

European: A23L3/36D F26B5/06B

US: 62/318 62/347 62/67 62/74



Family:

Publication number	Publication date	Application number	Application date
US3162019 A	19641222	US19620238155	19621116

Priority:

US19620238155 19621116

Probable Assignee: BETHLEHEM STEEL CORP

Assignee(s): (std): BETHLEHEM STEEL CORP

Assignee(s): BETHLEHEM CORP

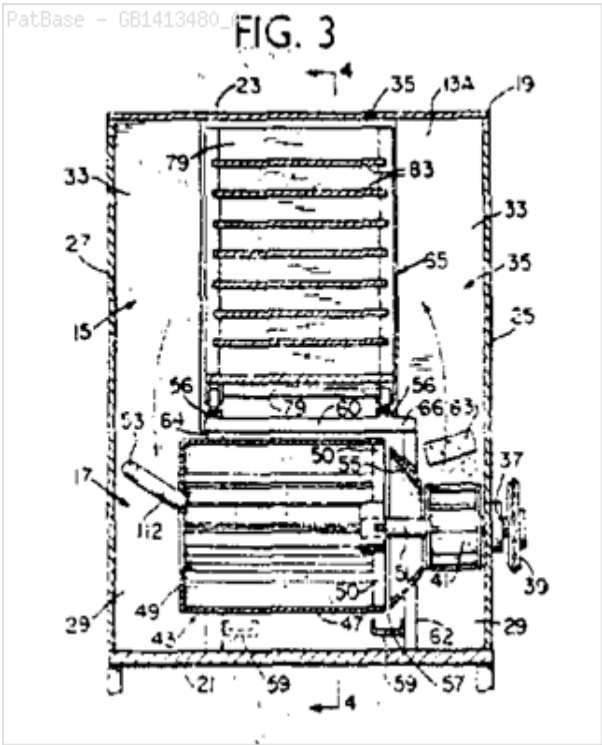
Inventor(s): (std): PORTER WILLIAM L ; ROOT III WILLIAM L

Inventor(s): III WILLIAM L ROOT

Title: SEQUENTIAL DRYING SYSTEM WITH ISOLATED CLOSED DRYING PATHS

Abstract:
Source: GB1413480A 1413480 Regenerating desiccants T MARGITTAI 26 Oct 1972 49374/72 Heading B1L [Also in Division F4] In a freeze-dryer comprising a series of drying stations 13A, the circulating atmosphere is dried in each station by passing it through a rotating drum 43 containing hygroscopic calcium chloride. The calcium chloride becomes liquid as it absorbs moisture and it flows out of the drum 43 via opening 57 into a trough 59 which conveys it via a pump, and a filter to a pre-heater and evaporator. The resultant pasty mass passes through a heated concentrator to a crystallizer, and is conveyed as crystals by a screw conveyor to a conduit feeding branches 112 controlled manually or by a device sensing the weight of each drum 43. The screw conveyor is also controlled by the sensing device.

Classifications:
International (IPC 8-9): F26B15/16 F26B5/06 (Advanced/Invention); F26B15/00 F26B5/04 (Core/Invention)
International (IPC 1-7): F26B17/00 F26B5/00
CPC: F26B5/06 F26B15/16
European: F26B15/16 F26B5/06



Family:

Publication number	Publication date	Application number	Application date
GB1413480 A	19751112	GB19720049374	19721026
IN141833 A	19770423	IN1973BO00346	19731022

Priority:
GB19720049374 19721026

Probable Assignee: MARGITTAI T
Assignee(s): (std): MARGITTAI T ; MARGITTAI TH ; YUTER S C
Inventor(s): (std): MARGITTAI TH ; YUTER S C

Title: **Freeze-drying** of biological materials in slowly **rotating drum**

Abstract:

Source: DE19654134A1 **Freeze-drying** of biological materials in slowly **rotating drum** comprises removing the solvent or water content in a heated drying chamber (1). The inner wall (20) of the drying chamber (2) is heated and slowly rotated. Vapours released by sublimation are withdrawn. There is uniform heat transfer between the contents and the inner wall (202). Also claimed is the apparatus for the above process.

Classifications:

International (IPC 8-9):

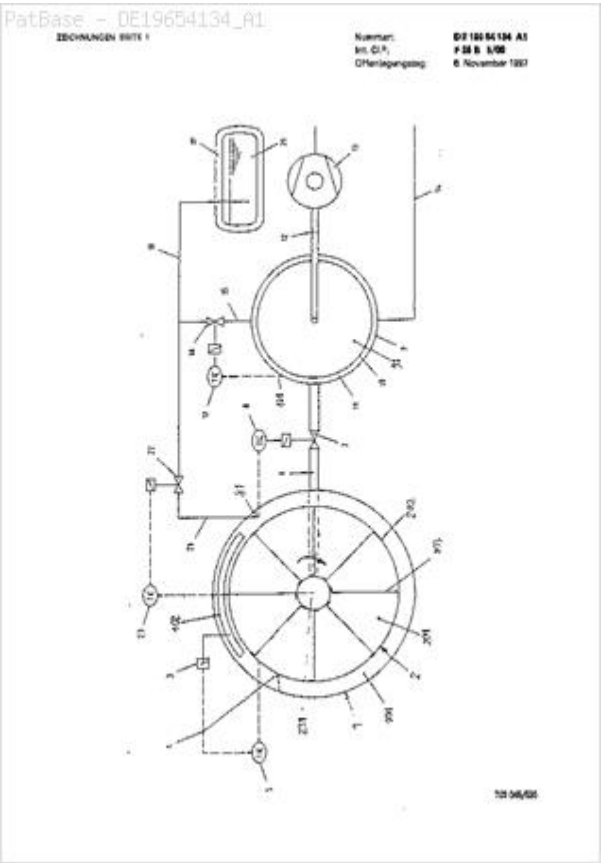
F26B5/06 (Advanced/Invention);

F26B5/04 (Core/Invention)

International (IPC 1-7): F26B5/06

CPC: F26B5/06

European: F26B5/06



Family:

Publication number	Publication date	Application number	Application date
DE19654134 A1	19971106	DE19961054134	19961223
DE19654134 C2	20030807	DE19961054134	19961223

Priority:

DE19961016626 19960425 DE19961054134 19961223

Probable Assignee: MESSER GRIESHEIM GMBH

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Assignee(s): MESSER GRIESHEIM GMBH 60549 FRANKFURT DE

Inventor(s): (std): ZIRBUS JOCHEN ; ZIRBUS DESIDERIUS ; ZIRBUS CHRISTIAN ; ZERWAS STEFAN ; BUCHMUELLER JUERGEN

Inventor(s): ZIRBUS JOCHEN 37539 BAD GRUND DE ; BUCHMUELLER JUERGEN 47803 KREFELD DE ; ZERWAS STEFAN 47443 MOERS DE ; ZIRBUS CHRISTIAN 37539 BAD GRUND DE ; ZIRBUS DESIDERIUS 37539 BAD GRUND DE

Title: METHOD OF BIOSYNTHESIZING TETRODOTOXIN

Abstract: Source: US2008206825A The present invention relates methods for the biosynthesis of tetrodotoxin (TTX) involving the steps of obtaining a culture possessing one or more of a *Vibrio* species, such as through a seed culture, inoculating the culture and tissue extract from a tetrodotoxin-bearing organism in a fermenter medium, and isolating and purifying tetrodotoxin from said fermenter, resulting in a yield of TTX of about 0.5 g TTX/L in about 3 to 5 days, such TTX being at least 90 percent pure.

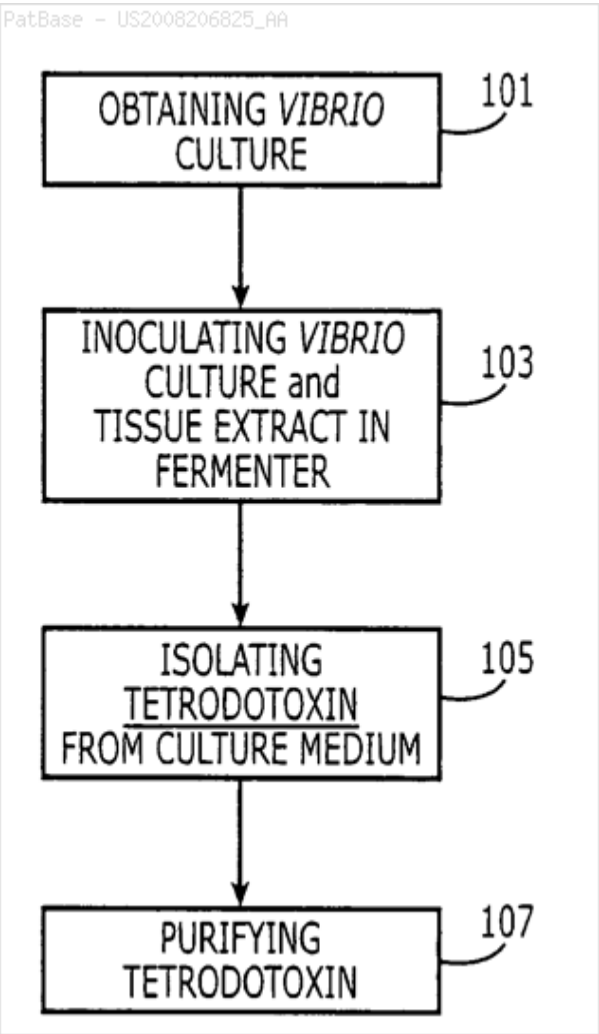
Classifications:

International (IPC 8-9): C12N1/20
C12P17/18 (Advanced/Invention);
C12R1/64 (Advanced/Non-invention)

CPC: C12P17/18

European: C12P17/18

US: 435/119 435/119P



Family:

Publication number	Publication date	Application number	Application date
CN101809160 A	20100818	CN200880005935	20080225
CN101809160 B	20130814	CN200880005935	20080225
US2008206825 AA	20080828	US20070709657	20070223
US7977074 BB	20110712	US20070709657	20070223
WO08102253 A2	20080828	WO2008IB00408	20080225
WO08102253 A3	20081120	WO2008IB00408	20080225

Priority:

US20070709657 20070223 WO2008IB00408 20080225

Probable Assignee: HONG KONG POLYTECHNIC UNIV

Assignee(s): (std): HONG KONG POLYTECHINC UNIVERSI ; UNIV HONG KONG POLYTECHNIC ; YU HOI FU PETER ; YU FAI CHUN

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Inventor(s): (std): CHUN YU FAI ; PETER YU HOI FU ; YU CHUN FAI ; YU FAI CHUN ; YU HOI FU PETER ; YU PETER HOI FU

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

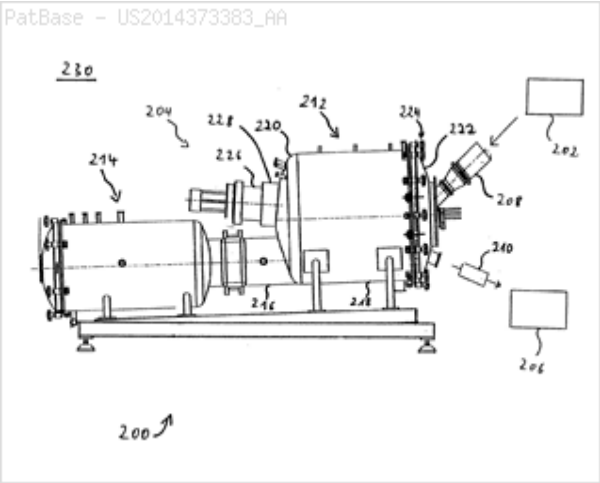
Title: ROTARY DRUM FOR USE IN A VACUUM FREEZE-DRYER

Abstract:

Source: US2014373383A A rotary drum (302) for use within a vacuum chamber (212) in a vacuum freeze-dryer (204) for the bulkware production of freeze-dried particles is provided. The drum (302) is in open communication with the vacuum chamber (212) and comprises a main section (304) terminated by a front plate (306) and a rear plate (308), the rear plate (308) is adapted for connection with a rotary supporting shaft (312) for rotary support of the drum (302), and the rear plate (308) is permeable for sublimation vapor from **freeze-drying** the particles.

Classifications:

International (IPC 8-9): F26B F26B11/04
F26B25/16 F26B5/06
F26B5/10 (Advanced/Invention);
F26B (Subclass/Invention)
CPC: F26B5/065 F26B25/16 F26B5/06
US: 34/287 34/92



Family:

Publication number	Publication date	Application number	Application date
AU2012320849 AA	20130411	AU20120320849	20121004
AU2012320849 AA	20140515	AU20120320849	20121004
AU2012320849 BB	20150514	AU20120320849	20121004
CA2849790 AA	20140324	CA20122849790	20121004
CA2849790 AA	20130411	CA20122849790	20121004
CN103917840 A	20140709	CN201280049515	20121004
CO6920285 A2	20140410	CO20140073113	20140404
CR20140155 A	20141030	CR20140000155	20140404
EA201490741 A1	20141128	EA20140090741	20121004
EP2578976 A1	20130410	EP20110008109	20111006
EP2764310 A1	20140813	EP20120769022	20121004
HK1199655 A1	20150710	HK20150100075	20150106
IL231850 A0	20140528	IL20140231850	20140331
IN02878DN2014 A	20150227	IN2014DN02878	20140411
JP2015500973 T2	20150108	JP20140533793T	20121004
JP5766885 B2	20150819	JP20140533793T	20121004
KR101553186 B1	20150914	KR20147011884	20121004
KR20140091541 A	20140721	KR20147011884	20121004
MX2014004045 A1	20140801	MX20140004045	20140403
MX2014004045 A1	20140801	MX20140004045	20121004
MY151766 A	20140702	MY20140000720	20121004
PE19802014 A1	20141219	PE20140000478	20121004
US2014373383 AA	20141225	US20120349028	20121004
WO13050157 A1	20130411	WO2012EP04163	20121004

Priority:

EP20110008109 20111006 WO2012EP04163 20121004 EP20120769022 20121004

Probable Assignee: MERIDION TECHNOLOGIES GMBH

Assignee(s): (std): SANOFI PASTEUR SA ; SANOFI PASTEUR ; SANOFI PASTEUR LTD ; SANOFI PASTEUR S A

Assignee(s): SANOFI PASTEUR SA2, AVENUE PONT PASTEURF-69007LYONFR ; STRUSCHKA MANFRED ; GEBHARD THOMAS ; LUY BERNHARD ; MERIDION TECHNOLOGIES GMBH ; PLITZKO MATTHIAS

Inventor(s): (std): BERNHARD LUY ; GEBHARD THOMAS ; LUY BERNHARD ; MANFRED STRUSCHKA ; MATTHIAS PLITZKO ; PLITZKO MATTHIAS ; STRUSCHKA MANFRED ; THOMAS GEBHARD

Inventor(s): STRUSCHKA MANFREDDE ; PLITZKO MATTHIASDE ; LUY BERNHARDDE ; GEBHARD THOMASDE

Agent(s): GRIFFITH HACK; BERESKIN AND PARR LLP SENCRL SRL; BENOIT AND COTE INC; BOESL RAPHAEL KONRAD; BOESL RAPHAEL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW