

Title (en)
COMPRESSED AIR INHALER FOR PULMONARY APPLICATION OF LIPOSOMAL POWDER AEROSOLS

Title (de)
DRUCKLUFTINHALATOR ZUR PULMONALEN APPLIKATION LIPOSOMALEN PULVER-AEROSOLS

Title (fr)
INHALATEUR A AIR COMPRI ME POUR ADMINISTRATION INTRA-PULMONAIRE D'AEROSOLS A BASE DE POUDRES DE LIPOSOMES

Publication
EP 1148905 A2 20011031 (DE)

Application
EP 00912355 A 20000203

Priority

- DE 0000337 W 20000203
- DE 19905285 A 19990203
- DE 19954107 A 19991102

Abstract (en)
[origin: WO0045878A2] The invention relates to a compressed air inhaler for the pulmonary application of a liposomal powder aerosol that carries active agents or is uncharged. The aim of the invention is to provide an inhaler by means of which the pulmonary application of especially liposomes that carry active agents is possible without forced breathing manoeuvres and by means of which the active agent can be transferred to the desired place of action in a sufficient amount without the active agent escaping. To this end, said compressed air inhaler comprises a receptacle (20) for the aqueous dispersion of liposomes. The liposomes carrying the active agents are dispersed in water in said receptacle. The receptacle is connected to an atomising nozzle (1) and to a drying unit (17) via a device that doses liquids (19), whereby the drying unit can be an atomising chamber for spray drying the liposomes. An outlet (18) and a mouth piece are joined to said drying unit. The atomising nozzle (1) is provided with separate supply channels (14, 16) for the compressed air and the dispersion of the liposomes (fig.1). The invention also relates to a novel powder aerosol consisting of liposomes or nanoparticles.

IPC 1-7
A61K 9/127; **A61K 9/12**; **A61P 11/06**; **A61P 11/08**

IPC 8 full level
A61K 9/00 (2006.01); **A61K 9/127** (2006.01); **A61K 9/16** (2006.01); **A61K 9/51** (2006.01); **A61K 9/12** (2006.01); **A61K 9/72** (2006.01); **A61K 47/24** (2006.01); **A61K 47/28** (2006.01); **A61K 47/32** (2006.01); **A61K 47/34** (2006.01); **A61K 47/36** (2006.01); **A61K 47/42** (2006.01); **A61L 9/12** (2006.01); **A61M 11/02** (2006.01); **A61M 11/06** (2006.01); **A61M 15/00** (2006.01); **A61P 11/00** (2006.01); **B05B 7/00** (2006.01); **B05B 7/06** (2006.01)

CPC (source: EP KR)
A61K 9/0075 (2013.01 - EP); **A61K 9/0078** (2013.01 - EP); **A61K 9/127** (2013.01 - EP); **A61M 11/001** (2014.02 - EP); **A61M 11/06** (2013.01 - EP); **A61M 15/00** (2013.01 - KR); **A61M 15/0086** (2013.01 - EP); **A61P 11/00** (2018.01 - EP); **A61P 11/06** (2018.01 - EP); **A61P 11/08** (2018.01 - EP); **B05B 7/0012** (2013.01 - EP); **B05B 7/066** (2013.01 - EP); **A61K 9/1272** (2013.01 - EP); **A61K 9/1277** (2013.01 - EP); **B82Y 30/00** (2013.01 - KR)

Cited by
US10036574B2; US11241042B2; US11825870B2; US11672279B2; US11452313B2; US12016393B2; US10542777B2; US11064725B2; US11659863B2; US11924930B2

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Designated extension state (EPC)
SI

DOCDB simple family (publication)
WO 0045878 A2 20000810; **WO 0045878 A3 20000928**; AU 3416400 A 20000825; CA 2361807 A1 20000810; CN 1338956 A 20020306; DE 10004860 A1 20001005; EP 1148905 A2 20011031; HU P0105445 A2 20020629; JP 2002538855 A 20021119; KR 20010101991 A 20011115; PL 349885 A1 20020923; RU 2001124354 A 20030620; SK 10942001 A3 20020509

DOCDB simple family (application)
DE 0000337 W 20000203; AU 3416400 A 20000203; CA 2361807 A 20000203; CN 00803324 A 20000203; DE 10004860 A 20000203; EP 00912355 A 20000203; HU P0105445 A 20000203; JP 2000596997 A 20000203; KR 20017009854 A 20010803; PL 34988500 A 20000203; RU 2001124354 A 20000203; SK 10942001 A 20000203