

Title (en)
FREEZE DRYING PLANT

Title (de)
GEFRIERTROCKNUNGSANLAGE

Title (fr)
INSTALLATION DE LYOPHILISATION

Publication
EP 3093597 B1 20171227 (DE)

Application
EP 15167172 A 20150511

Priority
EP 15167172 A 20150511

Abstract (en)
[origin: WO2016180558A1] The invention relates to a freeze drying system (1). The freeze drying system has a product chamber (3) and an ice chamber (11). In the ice chamber, ice crystals are produced from evaporated solvent of the goods (6) to be dried. A valve (23) is arranged between a reservoir (16) and the ice chamber (11). The reservoir (16) contains a gas at a pressure that is greater than the pressure in the product chamber (3). A control unit (31) controls the valve (23) into an open position at a time at which ice crystals are present in the ice chamber and at which the ice chamber (11) is connected to the product chamber (3) via an opening (13). When the valve (23) is opened, gas flows from the reservoir (16) through the valve (23) and through the ice chamber (11) and carries along ice crystals into the product chamber (3). Controlled nucleation can thereby occur, during which ice crystals are suddenly or rapidly produced in the goods (6) to be dried, which goods are contained in the vials (5).

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CPC (source: EP)
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Cited by
EP3392584A1; WO2018193100A1; JP2021519914A; CN107166947A; US11473839B2; CN110945305A; KR20200029380A; WO2019192747A1; EP3473959A1; US10982896B2; US11047620B2; DE102016100163A1

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