

Title (en)  
INHALER AND METHOD FOR CONTROLLING AN INHALER

Title (de)  
INHALATOR UND VERFAHREN ZUM STEUERN EINES INHALATORS

Title (fr)  
INHALATEUR ET PROCÉDÉ DE COMMANDE D'UN INHALATEUR

Publication  
**EP 3446579 B1 20221005 (DE)**

Application  
**EP 18190453 A 20180823**

Priority  
DE 102017119521 A 20170825

Abstract (en)  
[origin: US2019059446A1] A vaporizer unit for an inhaler, the vaporizer unit incorporating an electronic control device and at least one heating element, where the vaporizer unit is configured to vaporize a liquid fed from a liquid reservoir, such that the vaporized liquid is received by an air stream flowing through the vaporizer unit. The electronic control device is configured to heat the at least one heating element with a corresponding at least one control frequency, wherein: one or more control frequencies of the at least one control frequency is a variable control frequency; two or more control frequencies of the at least one control frequency are different control frequencies; or one or more control frequencies of the at least one control frequency is a variable control frequency and two or more control frequencies of the at least one control frequency are different control frequencies.

IPC 8 full level  
**A24F 40/46** (2020.01); **A24F 40/53** (2020.01); **A24F 40/10** (2020.01)

CPC (source: EP KR US)  
**A24F 40/10** (2020.01 - KR); **A24F 40/46** (2020.01 - EP KR US); **A24F 40/50** (2020.01 - KR); **A24F 40/53** (2020.01 - EP US); **A24F 40/80** (2020.01 - KR); **H05B 1/02** (2013.01 - KR); **H05B 1/0297** (2013.01 - US); **A24F 40/10** (2020.01 - EP US)

Citation (opposition)  
Opponent : G.D S.p.A.  
• WO 2014102091 A1 20140703 - PHILIP MORRIS PROD [CH]  
• US 2016206003 A1 20160721 - YAMADA MANABU [JP], et al  
• WO 2016175320 A1 20161103 - JAPAN TOBACCO INC [JP]  
• EP 3272382 A1 20180124 - JAPAN TOBACCO INC [JP]  
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• US 2014270727 A1 20140918 - AMPOLINI FREDERIC PHILIPPE [US], et al  
• EP 3207811 A1 20170823 - JAPAN TOBACCO INC [JP]  
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• US 2017042241 A1 20170216 - MURISON IAN [GB], et al  
• WO 2016014652 A1 20160128 - ALTRIA CLIENT SERVICES INC [US]  
• US 9532600 B2 20170103 - THORENS MICHEL [CH], et al  
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Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3446579 A1 20190227**; **EP 3446579 B1 20221005**; **EP 3446579 B8 20230104**; CN 109419045 A 20190305; CN 109419045 B 20240507; DE 102017119521 A1 20190228; JP 2019037226 A 20190314; JP 7252722 B2 20230405; KR 20190022360 A 20190306; US 2019059446 A1 20190228

DOCDB simple family (application)  
**EP 18190453 A 20180823**; CN 201810972853 A 20180824; DE 102017119521 A 20170825; JP 2018156891 A 20180824; KR 20180097603 A 20180821; US 201816111913 A 20180824