

Title (en)
USE OF ORGANIC POROUS MATERIAL IN AEROSOL GENERATING DEVICE AND ATOMIZER USING ORGANIC POROUS MATERIAL

Title (de)
VERWENDUNG VON ORGANISCHEM PORÖSEM MATERIAL IN EINER AEROSOLERZEUGUNGSVORRICHTUNG UND ZERSTÄUBER MIT EINEM ORGANISCHEN PORÖSEN MATERIAL

Title (fr)
UTILISATION D'UN MATÉRIAU POREUX ORGANIQUE DANS UN DISPOSITIF DE GÉNÉRATION D'AÉROSOL ET ATOMISEUR UTILISANT UN MATÉRIAU POREUX ORGANIQUE

Publication
EP 3995020 A4 20220907 (EN)

Application
EP 20834850 A 20200703

Priority

- CN 201910593233 A 20190703
- CN 2020100226 W 20200703

Abstract (en)
[origin: EP3995020A1] An application of an organic porous material (2) in an aerosol generating device, and an atomizer using the material. The organic porous material (2) is, at least in part, a melamine resin porous material. The melamine resin porous material has a decomposition temperature exceeding 400°C, can be used for a long time at a high temperature of 180-240°C without any change in properties, and thus can cover the operating temperature range of the atomizer. In addition, the material has a high porosity and controllable pore size distribution, can achieve both good liquid guiding and locking performance, and thus is an ideal liquid guiding material for an atomizer. The organic porous material (2) is applied to an atomizer, and has the advantages of quick liquid absorption, high liquid storage capacity, smooth liquid guide, and outstanding liquid locking capability due to a nano-capillary microstructure formed after liquid infiltration.

IPC 8 full level
A24F 47/00 (2020.01); **A24F 40/44** (2020.01)

CPC (source: EP US)
A24F 40/10 (2020.01 - US); **A24F 40/42** (2020.01 - US); **A24F 40/44** (2020.01 - EP US); **A24F 40/46** (2020.01 - US); **A24F 40/10** (2020.01 - EP); **A24F 40/42** (2020.01 - EP); **A24F 40/46** (2020.01 - EP)

Citation (search report)

- [XAI] US 2017127725 A1 20170511 - BUCHBERGER HELMUT [AT], et al
- [XA] US 2018116281 A1 20180503 - ANDERSON JR JAMES D [US]
- [E] EP 3915404 A1 20211201 - INNO IT CO LTD [KR]
- See references of WO 2021000952A1

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3995020 A1 20220511; EP 3995020 A4 20220907; EP 3995020 B1 20240410; CN 112167725 A 20210105; CN 112167725 B 20230314; US 2022240580 A1 20220804; WO 2021000952 A1 20210107

DOCDB simple family (application)
EP 20834850 A 20200703; CN 201910593233 A 20190703; CN 2020100226 W 20200703; US 202017621706 A 20200703