

(19)



(11)

EP 4 702 858 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
13.05.2026 Bulletin 2026/20

(51) International Patent Classification (IPC):
A24F 40/46^(2020.01) A24F 40/20^(2020.01)

(43) Date of publication A2:
04.03.2026 Bulletin 2026/10

(52) Cooperative Patent Classification (CPC):
A24F 40/46; A24F 40/20; A24F 40/485

(21) Application number: **25195185.1**

(22) Date of filing: **11.08.2025**

(84) Designated Contracting States:
**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 ME MK MT NL
NO PL PT RO RS SE SI SK SM TR**
Designated Extension States:
BA
Designated Validation States:
GE KH LA MA MD TN

(71) Applicant: **Shenzhen Geekvape Technology Co., Ltd.**
Shenzhen, Guangdong 518100 (CN)

(72) Inventors:
• **YANG, Yangbin**
Shenzhen, 518100 (CN)
• **YAN, Wenchao**
Shenzhen, 518100 (CN)

(30) Priority: **30.08.2024 CN 202422124068 U**
30.08.2024 CN 202422131894 U
30.10.2024 CN 202422635571 U
12.12.2024 CN 202423072313 U
20.12.2024 CN 202423162917 U

(74) Representative: **Manitz Finsterwald**
Patent- und Rechtsanwaltspartnerschaft mbB
Martin-Greif-Straße 1
80336 München (DE)

(54) HEATING ASSEMBLY AND AEROSOL-GENERATING APPARATUS

(57) The present disclosure relates to the technical field of aerosol generation. The present disclosure provides a heating assembly (103) and an aerosol-generating apparatus (100). The heating assembly includes a heating element (10). The heating element includes a heating element base (11) and a heating circuit (12), the heating element base includes a main body portion (113) and a bottom wall (114), the main body portion and the bottom wall enclose to form a receiving chamber (111), and the receiving chamber is configured to accommodate an aerosol-generating article (200); an end of the receiving chamber away from the bottom wall is provided with a port (112), and the port is configured to enable the aerosol-generating article to be inserted into and removed from the receiving chamber; and the heating circuit is configured to generate heat after being energized, and the heating circuit is disposed on the bottom wall. The heating assembly of the present disclosure can reduce a heating area of the aerosol-generating article and lower a temperature of the aerosol inhaled by the user.

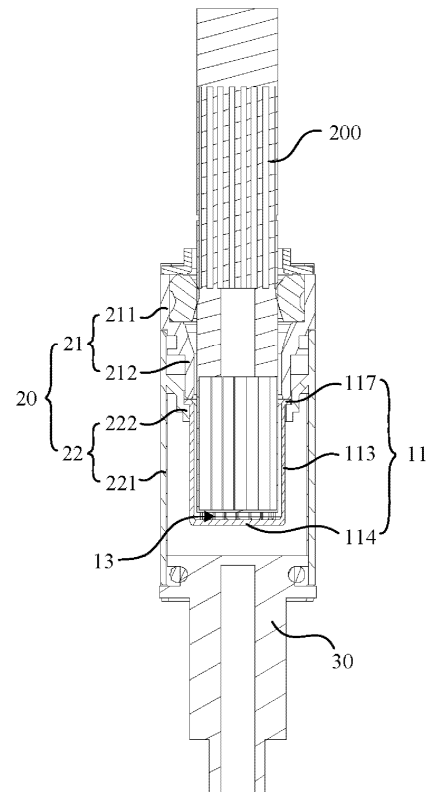


FIG. 3

EP 4 702 858 A3

Application Number

EP 25 19 5185

5

10

15

20

25

30

35

40

45

50

55

EPO FORM 1503 03.82 (P04C01)



Application Number

EP 25 19 5185

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-12(completely); 15(partially)

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

EP 25 19 5185

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-12(completely); 15(partially)

A heating assembly comprising heating element base and a heating circuit; the heating element base comprises a main body portion and a bottom wall, wherein the bottom wall is disposed on an end of the main body portion, the main body portion and the bottom wall enclose to form a receiving chamber, and the receiving chamber is configured to accommodate an aerosol-generating article; and an end of the receiving chamber away from the bottom wall is provided with a port, the port is in fluid communication with the receiving chamber, and the port is configured to enable the aerosol-generating article to be inserted into and removed from the receiving chamber; and the heating circuit is configured to generate heat after being energized, and the heating circuit is disposed on the bottom wall.

2. claims: 13, 14(completely); 15(partially)

A heating assembly, comprising a mounting frame assembly, a heat-conducting member, a heating member and a reflecting member, wherein a gas intake is formed on the mounting frame assembly, and the heat-conducting member and the heating member are arranged in the mounting frame assembly; the heat-conducting member is a hollow structure with openings at both ends, the heating member is disposed at the opening of the heat-conducting member away from the gas intake, and cooperates with the heat-conducting member to define a receiving chamber configured to an aerosol-generating article, and a gas flow channel is formed in the receiving chamber and is in fluid communication with the gas intake and an interior of the aerosol-generating article; the heating member is configured to generate heat when being energized, and the heat-conducting member is configured to absorb at least a portion of the heat generated by the heating member and transfer at least a portion of the absorbed heat to the receiving chamber; and the reflecting member is disposed in the mounting frame assembly and on an outer side of the heat-conducting member, and the reflecting member is configured to reflect heat radiated outward by the heat-conducting member and/or the heating member.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 25 19 5185

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

23-12-2025

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
CN 112656033 A	16-04-2021	NONE	

US 2017071251 A1	16-03-2017	AU 2015222055 A1	29-09-2016
		CA 2940842 A1	03-09-2015
		CN 106231937 A	14-12-2016
		DE 102014114308 A1	27-08-2015
		DE 202014001718 U1	28-05-2015
		EP 3110268 A1	04-01-2017
		JP 2017511703 A	27-04-2017
		KR 20160131035 A	15-11-2016
		RU 2016138159 A	28-03-2018
		US 2017071251 A1	16-03-2017
		WO 2015128499 A1	03-09-2015

WO 2019234143 A1	12-12-2019	CN 112218554 A	12-01-2021
		EP 3801088 A1	14-04-2021
		JP 7399890 B2	18-12-2023
		JP 2021525539 A	27-09-2021
		KR 20210018424 A	17-02-2021
		US 2021235762 A1	05-08-2021
		WO 2019234143 A1	12-12-2019

CN 110494053 A	22-11-2019	CN 110494053 A	22-11-2019
		EP 3610741 A1	19-02-2020
		JP 6930687 B2	01-09-2021
		JP 2020516268 A	11-06-2020
		US 2020154765 A1	21-05-2020
		WO 2018190606 A1	18-10-2018

CA 3113481 A1	16-04-2020	CA 3113481 A1	16-04-2020
		CN 112804893 A	14-05-2021
		EA 202190953 A1	22-07-2021
		EP 3863444 A1	18-08-2021
		EP 4344566 A2	03-04-2024
		JP 7434301 B2	20-02-2024
		JP 7600448 B2	16-12-2024
		JP 2022504401 A	13-01-2022
		JP 2024045431 A	02-04-2024
		KR 20210075111 A	22-06-2021
		KR 20250162963 A	19-11-2025
		PH 12021550716 A1	03-11-2021
		SG 11202103040R A	29-04-2021
		TW 202019303 A	01-06-2020
		UA 128843 C2	06-11-2024
		US 2021345673 A1	11-11-2021
		US 2024306717 A1	19-09-2024

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

23-12-2025

EPO FORM P0459

page 2 of 2