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(54) ELECTRONIC ATOMIZATION DEVICE, ATOMIZATION BODY AND ATOMIZER THEREOF, AND HEATING CONTROL METHOD THEREFOR

ELEKTRONISCHE ZERSTÄUBUNGSVORRICHTUNG, ZERSTÄUBUNGSKÖRPER UND ZERSTÄUBER DAFÜR SOWIE HEIZSTEUERUNGSVERFAHREN DAFÜR

DISPOSITIF D'ATOMISATION ÉLECTRONIQUE, CORPS D'ATOMISATION ET ATOMISEUR ASSOCIÉS, ET PROCÉDÉ DE COMMANDE DE CHAUFFAGE ASSOCIÉ

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Description

FIELD

[0001] The present disclosure relates to atomization devices, and more specifically, to an electronic atomization device, an atomization body and an atomizer thereof, and a heating control method therefor.

BACKGROUND

[0002] An electronic atomization device is a device capable of atomizing the aerosol producing substrate in an atomizer, and has the advantages of safety, convenience, health, environmental protection and the like, and is increasingly interesting and favored by people.

[0003] Currently, the heating of the aerosol producing substrate is generally divided into a contact heating and a non-contact heating.

[0004] The contact heating is generally to heat a heating wire (or a heating film plated on a ceramics) directly, and two contact points need to be reserved to connect with a circuit of the heating part. As shown in FIG. 1, the heating wire H1 of the atomizer 20 is in contact with two contact points P1 of the atomization body 10 through two contact points P2. In the working state of the atomizer, the atomization body 10 energizes the heating wire H1 through the contact points P1 and P2, and the internal resistance of the heating wire H1 is about 1 Ω, and the aerosol producing substrate can be atomized when heated. However, since the contact points need to be reserved, the heating mode not only has complex assembly, but also has the risk of liquid leakage. In addition, the resistances of the contact points are existed, which makes the heating efficiency low.

[0005] The non-contact heating generally adopts electromagnetic induction to generate eddy currents for heating. As shown in FIG. 2, a winding coil L1 and a capacitor (not shown) of the atomization body 10 form an LC resonant circuit, and by controlling the LC resonant circuit to achieve the most effective oscillation frequency. A metal heating sheet H2 (or a metal heating needle) is placed in the winding coil L1. When the winding coil L1 is powered on, the eddy currents are formed on the surfaces of the metal heating sheet H2 to achieve the purpose of heating. However, the heating efficiency is low when the heating is applied to a small-size heating member by eddy currents generated by electromagnetic induction.

[0006] Publications JP 6 741 752 B2, US 2016/120221 A1 and US 10 945 456 B2 are considered to be relevant to the present application.

SUMMARY

[0007] A technical problem to be resolved by the present disclosure is to provide an electronic atomization device with liquid leakage prevention and high heating efficiency, and further provide an atomization body and an atomizer thereof, and a heating control method therefor.

[0008] A technical solution adopted by the present disclosure to resolve the technical problem is to provide an atomizer for an electronic atomization device, which is configured to accommodate aerosol producing substrate, and cooperate with an atomization body to atomize the aerosol producing substrate, the atomizer including:

a first coil, configured to obtain energy from the atomization body through inductive coupling in the state where the atomizer is installed to the atomization body, so as to heat the aerosol producing substrate. The atomizer further includes a magnetic conductive medium, and the first coil is sleeved on the magnetic conductive medium.

[0009] Optionally, the first coil is an inductance coil, and the inductance coil includes two endpoints, and the atomizer further includes a heating member, and the two ends of the heating member are connected with the two endpoints of the first coil respectively.

[0010] Optionally, at least a portion of the heating member is disposed in the aerosol producing substrate.

[0011] Optionally, the first coil is a resistance coil wound with a heating wire, and the two ends of the first coil are short circuited.

[0012] Optionally, the first coil is disposed around the periphery of the aerosol producing substrate.

[0013] Optionally, the magnetic conductive medium includes a soft magnetic material.

[0014] Optionally, the magnetic conductive medium has a Curie point temperature, and the Curie point temperature is less than or equal to the dry burning temperature of the aerosol producing substrate.

[0015] Optionally, the Curie point temperature is 280 °C.

[0016] The present disclosure further provides an atomization body for an electronic atomization device, which is configured to cooperate with an atomizer to atomize aerosol producing substrate, the atomization body including a second coil,

[0017] when the atomization body is in a working state, the second coil generates electromagnetic energy, and heats the aerosol producing substrate accommodated in the atomizer through inductive coupling to generate aerosol. The second coil is configured to be sleeved on a magnetic conductive medium of the atomizer.

[0018] The present disclosure further provides an electronic atomization device, including:

the atomizer described above; and

the atomization body described above.

[0019] Optionally, the arrangement of the first coil and the second coil includes: an up-and-down arrangement, a left-and-right arrangement, or a concentric arrange-

ment.

[0020] The present disclosure further provides a heating control method for an electronic atomization device, including:

a second coil supplying energy to a first coil in the atomizer through inductive coupling, to heat aerosol producing substrate accommodated in the atomizer to generate aerosol.

[0021] The first coil and the second coil are sleeved on a magnetic conductive medium of the atomizer.

[0022] The implementation of the present disclosure provides the following beneficial effects: since the atomization body is provided with a second coil, and the atomizer is provided with a first coil, and the second coil conducts electric energy to the first coil through inductive coupling, the atomizer and the atomization body no longer need to be provided with contact points for electrical connection, therefore, the liquid leakage phenomenon of the atomizer is effectively improved compared with the traditional contact (i.e., the atomizer and the atomization body are connected through the contact points) conduction of the electric energy; and the heating efficiency is greatly improved compared with the traditional non-contact conduction of the electric energy.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] Subject matter of the present disclosure will be described in even greater detail below based on the exemplary figures. In the accompanying drawings:

FIG. 1 is a schematic diagram of a heating mode for an aerosol producing substrate in the prior art;

FIG. 2 is a schematic diagram of another heating mode for an aerosol producing substrate in the prior art;

FIG. 3 is a structural diagram of an electronic atomization device in a first embodiment of the present disclosure;

FIG. 4 is a structural diagram of an electronic atomization device in a second embodiment of the present disclosure; and

FIG. 5 is a flowchart of a heating control method for an electronic atomization device in a first embodiment of the present disclosure.

DETAILED DESCRIPTION

[0024] The technical solutions in the embodiments of the present disclosure will be described in even greater detail below with reference to the accompanying drawings. Obviously, the described embodiments are merely some embodiments of the present disclosure, rather than all of the embodiments. All other embodiments obtained by a person skilled in the art based on the embodiments in the present disclosure without creative efforts shall fall within the scope of the present disclosure.

[0025] FIG. 3 shows an electronic atomization device in a first embodiment in the present disclosure. The electronic atomization device in the embodiment includes an atomization body 10 and an atomizer 20 that are detachably connected. An aerosol producing substrate is accommodated in the atomizer 20, and the atomizer 20 is provided with a first coil 21 therein, the atomization body 10 is provided with a second coil 11 therein. Wherein, the second coil 11 is an inductance coil composed of a common wound coil. The first coil 21 and the second coil 11 are arranged in an up-and-down arrangement, and are coupled with each other. In the state when the atomizer 20 is installed to the atomization body 10, the second coil 11 generates electromagnetic energy, and the first coil 21 acquires the energy from the second coil 11 of the atomization body 10 in an inductive coupling manner, so as to heat the aerosol producing substrate in the atomizer 2 to generate aerosol.

[0026] Further, in the embodiment, combined with FIG. 3, the first coil 21 is an inductance coil, and has two endpoints, that is, the first coil 21 is also an inductance coil composed of a common wound coil, and has a small internal resistance. Moreover, the electronic atomization device in the embodiment further includes a heating member 22, which includes but is not limited to a heating wire or a ceramic heating core, and is connected to the two endpoints of the first coil 21. Alternatively, at least a portion of the heating member 22 may be disposed in the aerosol producing substrate. In the embodiment, the second coil 11 generates electromagnetic energy when energized. According to the mutual inductance principle, the electric energy is transmitted to the first coil 21 to supply power to heating member 22, so as to realize the heating and atomizing of the aerosol producing substrate.

[0027] In the electronic atomization device of the above embodiment, since the first coil and the second coil that are coupled with each other are provided, and the electric energy is conducted by inductive coupling, the atomizer and the atomization body no longer need to be provided with the contact points for electrical connection. Therefore, compared with the traditional contact (i.e., the atomizer and the atomization body are connected through the contact points) conduction of the electric energy, the liquid leakage phenomenon of the atomizer of the electronic atomization device in the embodiment can be effectively improved. Compared with the traditional non-contact conduction of the electric energy, the heating efficiency of the electronic atomization device in the embodiment can be greatly improved.

[0028] Further, the electronic atomization device in the embodiment includes a magnetic conductive medium, which may be a magnetic conductive medium of a soft magnetic material, such as a magnetic conductive rod 30. Moreover, a recess portion 23 is provided on a con-

necting portion of the atomizer 20 (realizing the mating installation with the atomization body 10) to accommodate the magnetic conductive rod 30. In addition, the second coil 11 and the first coil 21 are both sleeved on the magnetic guide rod 30. In the embodiment, one magnetic conductive medium (such as the magnetic conductive rod 30) is provided between the two coils, which can increase the inductive conduction efficiency.

[0029] FIG. 4 is the structural diagram of the electronic atomization device in the second embodiment of the present disclosure. Compared with the embodiment shown in FIG. 3, the difference of the electronic atomization device of this embodiment is: the first coil 21' is a resistance coil wound by a heating wire, and has a relatively large internal resistance, and the two ends of the first coil 21' are short circuited, for example, the two ends of the first coil 21' are connected through a metal wire 22' (such as a gold wire) with a very small internal resistance, or, the two ends of the first coil 21' are directly connected together. In this embodiment, the heating wire is wound into a coil to form the first coil 21', with two ends short circuited. Alternatively, the first coil 21' is arranged around a periphery of the aerosol producing substrate. When the second coil 11 generates electromagnetic energy when energized, the electric energy is transferred to the first coil 21' according to the principle of mutual inductance, which will generate induced current on the first coil 21', and the first coil 21' will generate heat due to short circuit, so as to realize the heating and atomizing of the aerosol producing substrate.

[0030] Further, in an optional embodiment, the magnetic conductive rod 30 is a magnetic conductive rod with a specific Curie point temperature, and the specific Curie point temperature is less than or equal to the dry burning temperature of the aerosol producing substrate. For example, the magnetic conductive rod 30 is a magnetic conductive rod with a Curie point temperature of 280 °C. In this embodiment, the magnetic conductive rod has the characteristic that the magnetic conductive performance disappears when the temperature rises to the Curie point temperature. When the aerosol producing substrate is dry burned, the temperature of the heating member/wire is too high, the temperature of the magnetic conductive rod 30 extending through the heating member/wire will rise according to the conductivity of the thermal energy. Assuming that the heating member/wire will dry burn when the temperature of which exceeds 280 °C, a magnetic conductive rod with a Curie point temperature of 280 °C may be selected. When the aerosol producing substrate is dry burned, the temperature of the magnetic conductive rod will exceed the Curie point temperature, therefore the magnetic conductive performance of the magnetic conductive rod will be greatly weakened, and the electromagnetic induction intensity of the magnetic conductive rod will be correspondingly weakened, and thus the induced current flowing through the heating member/wire will be reduced, which is not enough to provide the required power output, thereby achieving an anti-dry burning effect. Therefore, the electronic atomization device in this embodiment does not perform dry burning without providing a temperature measurement module.

[0031] It should be understood that the above is only a specific embodiment of the disclosure. In some other embodiments, the arrangement of the first coil and the second coil may further include: a left-and-right arrangement, or a concentric arrangement. In addition, the electronic atomization device may be either a split electronic atomization device or an integrated electronic atomization device.

[0032] FIG. 5 is the flow chart of the heating control method for the electronic atomization device in the first embodiment of the present disclosure. Combined with FIG. 3 or FIG. 4, the heating control method of this embodiment includes:

Step S10, the second coil of the atomization body generating electromagnetic energy in a state where the atomizer is installed to the atomization body;

Step S20, the second coil supplying energy to the first coil in the atomizer through inductive coupling, to heat the aerosol producing substrate accommodated in the atomizer to generate aerosol.

[0033] The heating control method in this embodiment adopts inductive coupling to conduct electric energy, so that the contact points for electrical connection are no longer needed on the atomizer and the atomization body. Therefore, compared with the traditional contact conduction of the electric energy, the liquid leakage phenomenon of the atomizer can be effectively improved; compared with the traditional non-contact conduction of the electric energy, the heating efficiency of the electronic atomization device in the embodiment can be greatly improved.

[0034] Further, the electronic atomization device may be either a split electronic atomization device or an integrated electronic atomization device. Moreover, the arrangement of the first coil and the second coil may include: an up-and-down arrangement, a left-and-right arrangement, or a concentric arrangement. In addition, a magnetic conductive medium, such as a magnetic conductive rod, may be provided between the first coil and the second coil. The magnetic conductive rod may be a magnetic conductive rod with a specific Curie point temperature, and the specific Curie point temperature is less than or equal to the dry burning temperature of the aerosol producing substrate.

Claims

1. An atomizer (20) for an electronic atomization device, configured to accommodate aerosol producing substrate, and cooperate with an atomization body (10) to atomize the aerosol producing substrate,

comprising:
a first coil (21, 21'), configured to obtain energy from the atomization body (10) through inductive coupling in the state where the atomizer (20) is installed to the atomization body (10), so as to heat the aerosol producing substrate; and **characterised in that** the atomizer further comprises:

a magnetic conductive medium (30);
wherein the first coil (21, 21') is sleeved on the magnetic conductive medium (30).

2. The atomizer (20) of the electronic atomization device of claim 1, wherein the first coil (21, 21') is an inductance coil, and the inductance coil comprises two endpoints, and
wherein the atomizer (20) further comprises a heating member (22), and the two ends of the heating member (22) are connected with the two endpoints of the first coil (21, 21') respectively.

3. The atomizer (20) of the electronic atomization device of claim 2, wherein at least a portion of the heating member (22) is disposed in the aerosol producing substrate.

4. The atomizer (20) of the electronic atomization device of claim 1, wherein the first coil (21, 21') is a resistance coil wound with a heating wire, and the two ends of the first coil (21, 21') are short circuited.

5. The atomizer (20) of the electronic atomization device of claim 4, wherein the first coil (21, 21') forms a cavity, to accommodate the aerosol producing substrate.

6. The atomizer (20) of the electronic atomization device of claim 1, wherein the magnetic conductive medium (30) comprises a soft magnetic material.

7. The atomizer (20) of the electronic atomization device of claim 1, wherein the Curie point temperature of the magnetic conductive medium (30) is less than or equal to the dry burning temperature of the aerosol producing substrate.

8. The atomizer (20) of the electronic atomization device of claim 7, wherein the Curie point temperature is 280 °C.

9. An atomization body (10) for an electronic atomization device, configured to cooperate with an atomizer (20) according to any one of claims 1 to 8 to atomize aerosol producing substrate, **characterized by** comprising:

a second coil (11), configured to generate electromagnetic energy in a working state of the atomization body (10), and to heat the aerosol producing substrate accommodated in the atomizer (20) through inductive coupling to generate aerosol,
wherein the second coil (11) is configured to be sleeved on a magnetic conductive medium (30) of the atomizer (20).

10. An electronic atomization device, **characterized by** comprising:

the atomizer (20) of any one of claims 1 to 8; and the atomization body (10) of claim 9.

11. The electronic atomization device of claim 10, wherein the arrangement of the second coil (11) and the first coil (21, 21') comprises: an up-and-down arrangement, a left-and-right arrangement, or a concentric arrangement.

12. A heating control method for an electronic atomization device, according to claim 10 or 11 **characterized by** comprising:
a second coil (11) supplying energy to a first coil (21, 21') in the atomizer (20) through inductive coupling, to heat aerosol producing substrate accommodated in the atomizer (20) to generate aerosol, wherein the first coil (21, 21') and the second coil (11) are sleeved on a magnetic conductive medium (30) of the atomizer (20).

Patentansprüche

1. Zerstäuber (20) für eine elektronische Zerstäubungsvorrichtung, der zum Aufnehmen von aerosolproduzierendem Substrat und zum Zerstäuben des aerosolproduzierenden Substrats zum Zusammenwirken mit einem Zerstäubungskörper (10) ausgelegt ist, umfassend:
eine erste Spule (21, 21'), die in dem Zustand, in dem der Zerstäuber (20) an dem Zerstäubungskörper (10) installiert ist, zum Erhalten von Energie von dem Zerstäubungskörper (10) durch induktive Kopplung ausgelegt ist, um das aerosolproduzierende Substrat zu erwärmen; und **dadurch gekennzeichnet, dass** der Zerstäuber ferner Folgendes umfasst:

ein magnetisches leitfähiges Medium (30);
wobei die erste Spule (21, 21') auf das magnetische leitfähige Medium (30) aufgeschoben ist.

2. Zerstäuber (20) der elektronischen Zerstäubungsvorrichtung nach Anspruch 1, wobei die erste Spule (21, 21') eine Induktionsspule ist und die Induktionsspule zwei Endpunkte umfasst und
wobei der Zerstäuber (20) ferner ein Heizelement (22) umfasst und die zwei Enden des Heizelements

(22) jeweils mit den zwei Endpunkten der ersten Spule (21, 21') verbunden sind.

3. Zerstäuber (20) der elektronischen Zerstäubungsvorrichtung nach Anspruch 2, wobei mindestens ein Abschnitt des Heizelements (22) in dem aerosolproduzierenden Substrat angeordnet ist.

4. Zerstäuber (20) der elektronischen Zerstäubungsvorrichtung nach Anspruch 1, wobei die erste Spule (21, 21') eine mit einem Heizdraht gewickelte Widerstandsspule ist und die zwei Enden der ersten Spule (21, 21') kurzgeschlossen sind.

5. Zerstäuber (20) der elektronischen Zerstäubungsvorrichtung nach Anspruch 4, wobei die erste Spule (21, 21') einen Hohlraum zum Aufnehmen des aerosolproduzierenden Substrats ausbildet.

6. Zerstäuber (20) der elektronischen Zerstäubungsvorrichtung nach Anspruch 1, wobei das magnetische leitfähige Medium (30) ein weichmagnetisches Material umfasst.

7. Zerstäuber (20) der elektronischen Zerstäubungsvorrichtung nach Anspruch 1, wobei die Curiepunkttemperatur des magnetischen leitfähigen Mediums (30) niedriger als die oder gleich der Trockenbrenntemperatur des aerosolproduzierenden Substrats ist.

8. Zerstäuber (20) der elektronischen Zerstäubungsvorrichtung nach Anspruch 7, wobei die Curiepunkttemperatur 280°C beträgt.

9. Zerstäubungskörper (10) für eine elektronische Zerstäubungsvorrichtung, der zum Zerstäuben von aerosolproduzierendem Substrat zum Zusammenwirken mit einem Zerstäuber (20) nach einem der Ansprüche 1 bis 8 ausgelegt ist, **dadurch gekennzeichnet, dass** er Folgendes umfasst:

eine zweite Spule (11), die zum Erzeugen von elektromagnetischer Energie in einem Arbeitszustand des Zerstäubungskörpers (10) und zum Erwärmen des in dem Zerstäuber (20) aufgenommenen aerosolproduzierenden Substrats durch induktive Kopplung zum Erzeugen des Aerosols ausgelegt ist,
wobei die zweite Spule (11) zum Aufschieben auf ein magnetisches leitfähiges Medium (30) des Zerstäubers (20) ausgelegt ist.

10. Elektronische Zerstäubungsvorrichtung, **dadurch gekennzeichnet, dass** sie Folgendes umfasst:

den Zerstäuber (20) nach einem der Ansprüche 1 bis 8; und
den Zerstäubungskörper (10) nach Anspruch 9.

11. Elektronische Zerstäubungsvorrichtung nach Anspruch 10, wobei die Anordnung der zweiten Spule (11) und der ersten Spule (21, 21') Folgendes umfasst: eine Oben-und-unten-Anordnung, eine Links-und-rechts-Anordnung oder eine konzentrische Anordnung.

12. Heizsteuerungsverfahren für eine elektronische Zerstäubungsvorrichtung nach Anspruch 10 oder 11, **dadurch gekennzeichnet, dass** es Folgendes umfasst:
eine zweite Spule (11), die einer ersten Spule (21, 21') in dem Zerstäuber (20) durch induktive Kopplung Energie zuführt, um in dem Zerstäuber (20) aufgenommenes aerosolproduzierendes Substrat zum Erzeugen von Aerosol zu erwärmen, wobei die erste Spule (21, 21') und die zweite Spule (11) auf ein magnetisches leitfähiges Medium (30) des Zerstäubers (20) aufgeschoben sind.

Revendications

1. Atomiseur (20) pour un dispositif d'atomisation électronique, configuré pour recevoir un substrat de production d'aérosol, et coopérer avec un corps d'atomisation (10) pour atomiser le substrat de production d'aérosol, comprenant :
une première bobine (21, 21'), configurée pour obtenir de l'énergie en provenance du corps d'atomisation (10) par couplage inductif dans l'état dans lequel l'atomiseur (20) est installé sur le corps d'atomisation (10), de manière à chauffer le substrat de production d'aérosol ; et **caractérisé en ce que** l'atomiseur comprend en outre :

un support magnétique conducteur (30) ;
dans lequel la première bobine (21, 21') est emmanchée sur le support magnétique conducteur (30).

2. Atomiseur (20) du dispositif d'atomisation électronique selon la revendication 1, dans lequel la première bobine (21, 21') est une bobine d'inductance, et la bobine d'inductance comprend deux points d'extrémité, et
dans lequel l'atomiseur (20) comprend en outre un élément chauffant (22), et les deux extrémités de l'élément chauffant (22) sont connectées respectivement aux deux points d'extrémité de la première bobine (21, 21').

3. Atomiseur (20) du dispositif d'atomisation électronique selon la revendication 2, dans lequel au moins une partie de l'élément chauffant (22) est disposée dans le substrat de production d'aérosol.

4. Atomiseur (20) du dispositif d'atomisation électronique selon la revendication 1, dans lequel la première bobine (21, 21') est une bobine de résistance enroulée avec un fil chauffant, et les deux extrémités de la première bobine (21, 21') sont court-circuitées.

5. Atomiseur (20) du dispositif d'atomisation électronique selon la revendication 4, dans lequel la première bobine (21, 21') forme une cavité, pour recevoir le substrat de production d'aérosol.

6. Atomiseur (20) du dispositif d'atomisation électronique selon la revendication 1, dans lequel le support magnétique conducteur (30) comprend un matériau magnétique doux.

7. Atomiseur (20) du dispositif d'atomisation électronique selon la revendication 1, dans lequel la température du point de Curie du support magnétique conducteur (30) est inférieure ou égale à la température de combustion à sec du substrat de production d'aérosol.

8. Atomiseur (20) du dispositif d'atomisation électronique selon la revendication 7, dans lequel la température du point de Curie est de 280 °C.

9. Corps d'atomisation (10) pour un dispositif d'atomisation électronique, configuré pour coopérer avec un atomiseur (20) selon l'une quelconque des revendications 1 à 8 pour atomiser un substrat de production d'aérosol, **caractérisé en ce qu'**il comprend :

une seconde bobine (11), configurée pour générer de l'énergie électromagnétique dans un état de fonctionnement du corps d'atomisation (10), et pour chauffer le substrat de production d'aérosol reçu dans l'atomiseur (20) par couplage inductif pour générer un aérosol,
dans lequel la seconde bobine (11) est configurée pour être emmanchée sur un support magnétique conducteur (30) de l'atomiseur (20).

10. Dispositif d'atomisation électronique, **caractérisé en ce qu'**il comprend :

l'atomiseur (20) selon l'une quelconque des revendications 1 à 8 ; et
le corps d'atomisation (10) selon la revendication 9.

11. Dispositif d'atomisation électronique selon la revendication 10, dans lequel l'agencement de la seconde bobine (11) et de la première bobine (21, 21') comprend : un agencement de haut en bas, un agencement de gauche à droite ou un agencement concentrique.

12. Procédé de commande de chauffage pour un dispositif d'atomisation électronique, selon la revendication 10 ou 11 **caractérisé en ce qu'**il comprend : une seconde bobine (11) fournissant de l'énergie à une première bobine (21, 21') dans l'atomiseur (20) par couplage inductif, pour chauffer un substrat de production d'aérosol reçu dans l'atomiseur (20) pour générer un aérosol, dans lequel la première bobine (21, 21') et la seconde bobine (11) sont emmanchées sur un support magnétique conducteur (30) de l'atomiseur (20).

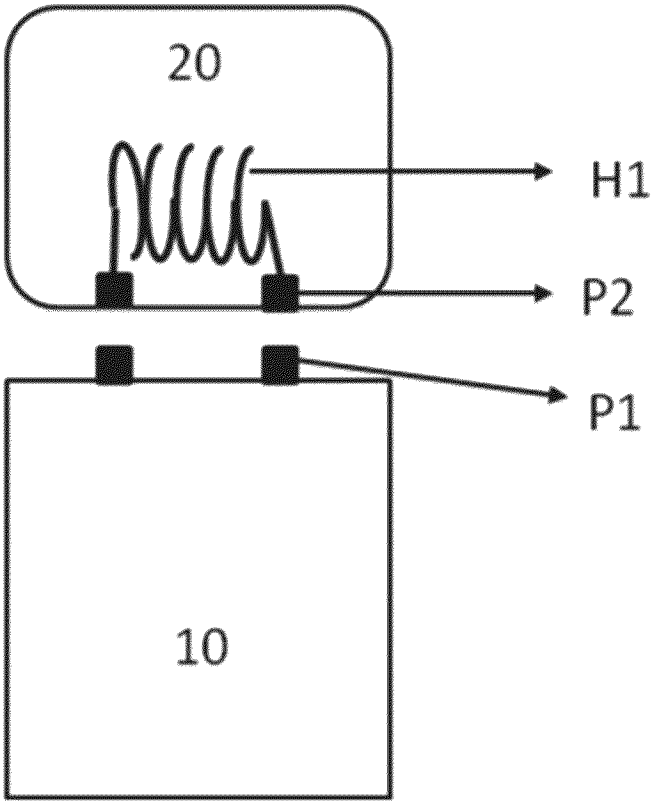

FIG. 1

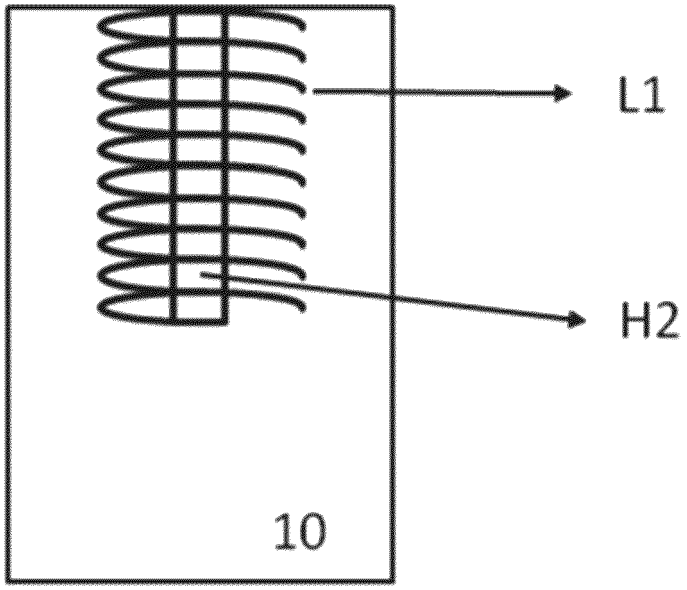

FIG. 2

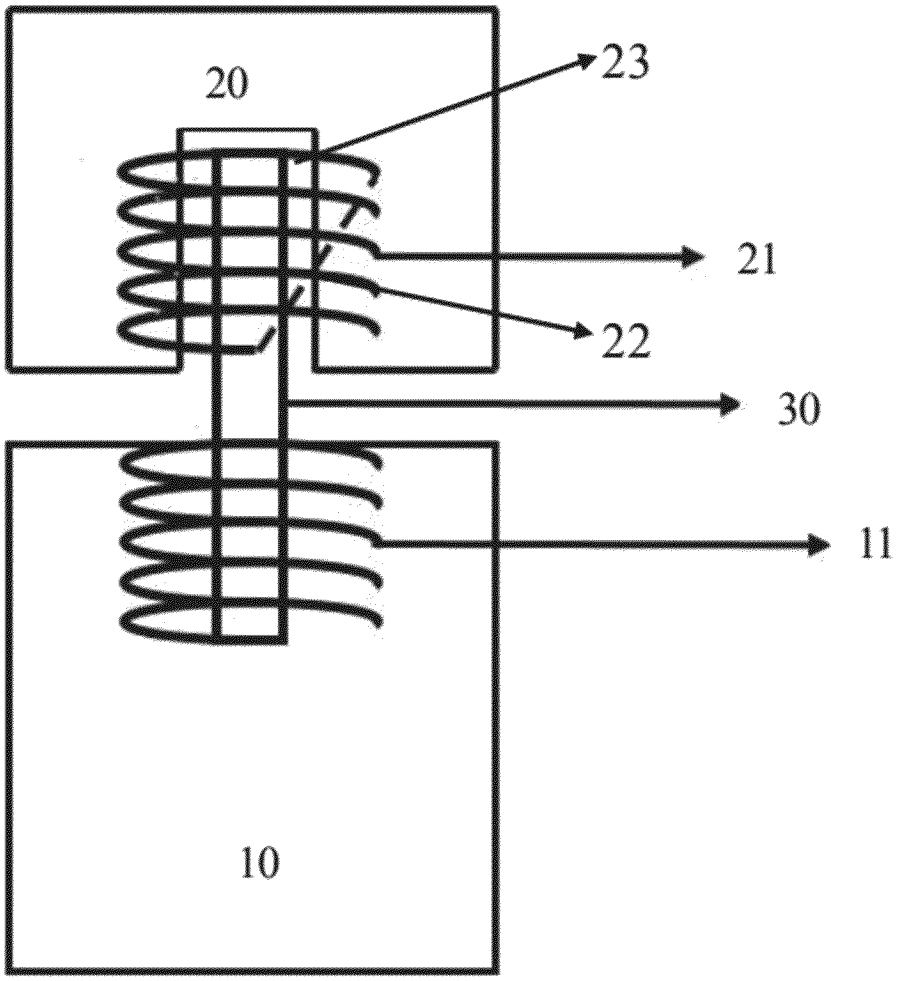

FIG. 3

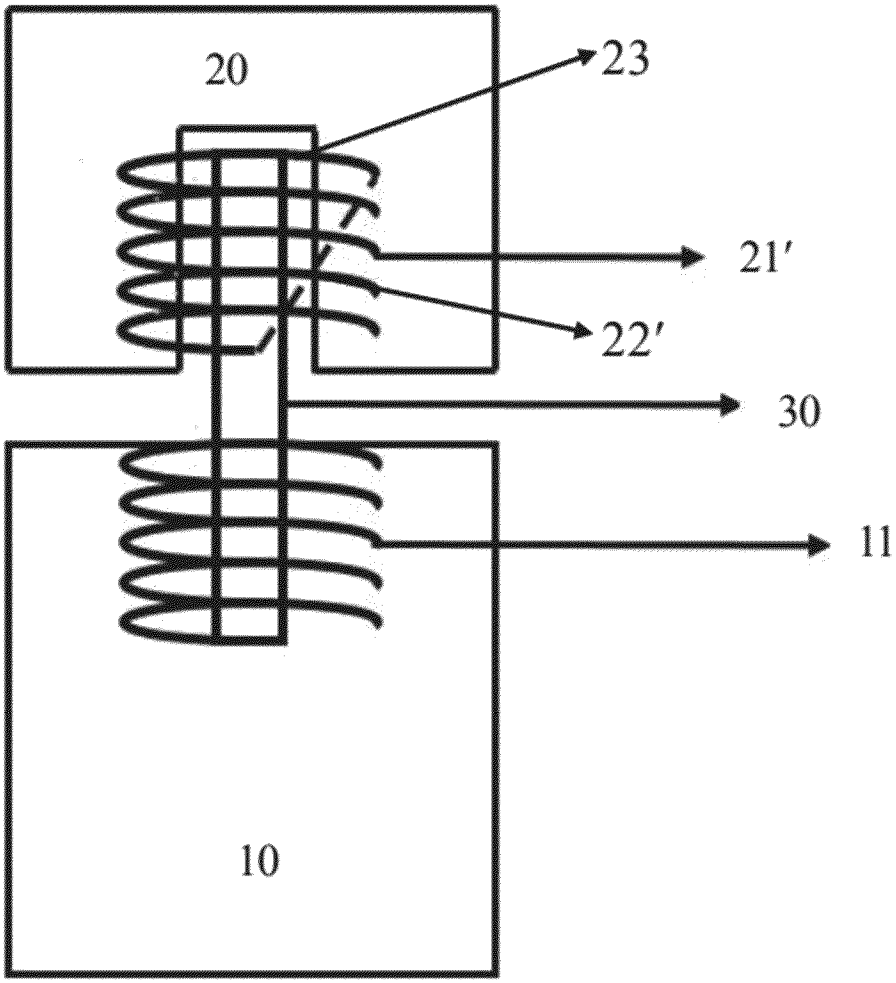
20
23
21′
22′
30
11
10

FIG. 4

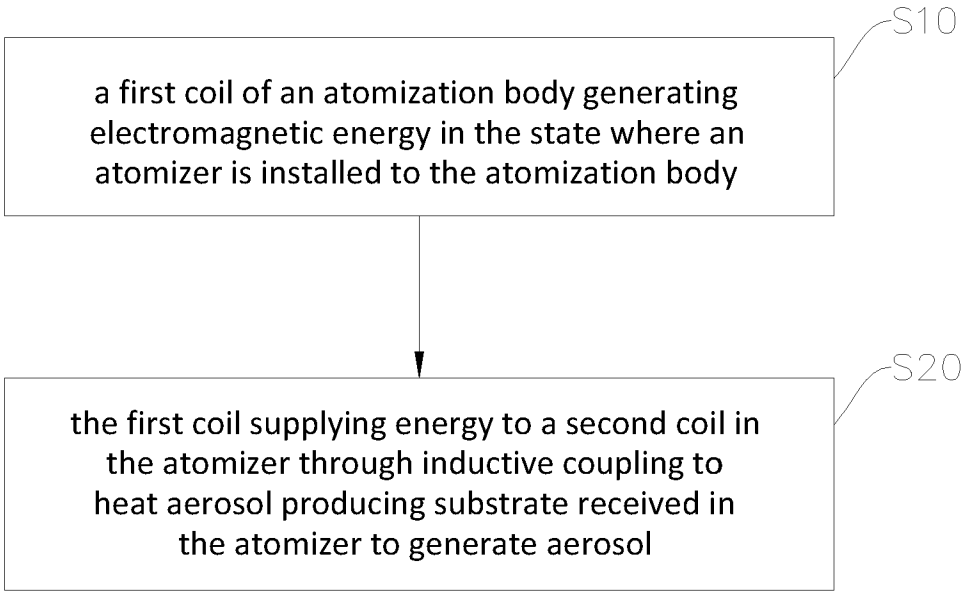
S10
a first coil of an atomization body generating electromagnetic energy in the state where an atomizer is installed to the atomization body
S20
the first coil supplying energy to a second coil in the atomizer through inductive coupling to heat aerosol producing substrate received in the atomizer to generate aerosol

FIG. 5

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- JP 6741752 B **[0006]**
- US 2016120221 A1 **[0006]**
- US 10945456 B2 **[0006]**