Claims

1. A heating assembly, characterized in that the heating assembly comprises a heating element, wherein the heating element is configured to heat an aerosol generation substrate, and the heating element comprises at least two heating zones; and

wherein a thermal barrier structure is provided between at least one pair of adjacent heating zones, the thermal barrier structure being configured to prevent heat transfer between the adjacent heating zones.

2. The heating assembly according to claim 1, characterized in that the heating element comprises a thermally conductive body and a heating structure, and the heating assembly further comprises a heat exchange structure; and

wherein the thermally conductive body forms an open-ended accommodating cavity, the thermally conductive body comprises axially distributed first thermal conductive zone and second thermal conductive zone, a portion of the accommodating cavity corresponding to the first thermal conductive zone is for inserting the aerosol generation substrate, the heat exchange structure is mounted at a portion of the accommodating cavity corresponding to the second thermal conductive zone, the heating structure is positioned at the first thermal conductive zone, the heating structure generates heat, the first thermal conductive zone conducts heat generated by the heating structure to the second thermal conductive zone, and the heat exchange structure is configured to perform heat exchange with the second thermal conductive zone to heat incoming gas;

wherein the first thermal conductive zone comprises at least two heating zones, the heating structure comprises at least two heating elements, and the heating elements correspond to the heating zones one by one; and

wherein the thermally conductive body further comprises a heat-insulating hollow portion between two adjacent heating zones, the heat-insulating hollow portion forming the thermal barrier structure.

3. The heating assembly according to claim 2, characterized in that a length of the heat-insulating hollow portion is greater than or equal to a length of the heating element along a direction parallel to the heat-insulating hollow portion.

4. The heating assembly according to claim 2, characterized in that the heat-insulating hollow portion is provided along a boundary line between the two adjacent heating zones.

5. The heating assembly according to claim 2, characterized in that the thermally conductive body is of a hollow tubular structure, the accommodating cavity is an internal cavity of the thermally conductive body, at least two heating zones are uniformly distributed along a circumference of the thermally conductive body, and the heat-insulating hollow portion extends axially along the thermally conductive body; or

wherein at least two heating zones are uniformly distributed along an axial direction of the thermally conductive body, and the heat-insulating hollow portion extends circumferentially along the thermally conductive body.

6. The heating assembly according to claim 5, characterized in that a distance between the heat-insulating hollow portion extending axially along the thermally conductive body and a nearest port of the heating element is greater than 1 mm.

7. The heating assembly according to claim 1, characterized in that the heating element comprises a heat-insulating zone; and

wherein the heat-insulating zone is positioned between two adjacent heating zones, and the thermal barrier structure comprises an insulating body, the insulating body being embedded in the heat-insulating zone of the heating element to block heat transfer between the adjacent heating zones.

8. The heating assembly according to claim 7, characterized in that the heat-insulating zone comprises a hollow structure, the insulating body filling the hollow structure; or the heat-insulating zone has a groove, and the thermal insulation body is arranged in the groove.

9. The heating assembly according to claim 1, characterized in that the heating element comprises a heating pipe, the heating pipe being configured to heat the aerosol generation substrate, a pipe wall of the heating pipe comprises at least two heating zones, each heating zone being capable of heating the aerosol generation substrate; a thermal insulation interval is provided between adjacent heating zones to prevent heat transfer between the adjacent heating zones, the thermal insulation interval penetrating the pipe wall of the heating pipe in a radial direction; the heating zones form the heating zones, and the thermal insulation interval forms the thermal barrier structure; and

wherein the heating assembly comprises a thermoplastic sealing layer, the thermoplastic sealing layer being positioned on the heating pipe and covering the thermal insulation interval to prevent airflow within the heating pipe from flowing out through the thermal insulation interval.

10. The heating assembly according to claim 9, characterized in that the thermoplastic sealing layer is a heat-shrinkable tube or heat-shrinkable film heat-shrunk on the heating pipe.

11. The heating assembly according to claim 1, characterized in that the heating element comprises a thermally conductive pipe and an electric heating element provided on the thermally conductive pipe, the thermally conductive pipe comprises a heating chamber for inserting the aerosol generation substrate, a pipe wall of the thermally conductive pipe comprises at least two heating zones, a number of electric heating elements is at least two, each heating zone corresponds to at least one electric heating element, and the electric heating element is configured to heat the corresponding heating zone; and

wherein a pipe wall thinning portion is provided on the pipe wall of the thermally conductive pipe between at least one pair of adjacent heating zones, and a wall thickness of the pipe wall thinning portion is less than a wall thickness of the heating zones, the heating zones forming the heating zones, and the pipe wall thinning portion forming the thermal barrier structure.

12. The heating assembly according to claim 11, characterized in that an outer side surface of the pipe wall thinning portion is recessed toward inside of the thermally conductive pipe and/or an inner side surface of the pipe wall thinning portion is recessed toward outside of the thermally conductive pipe.

13. The heating assembly according to claim 11, characterized in that the heating zones comprise a first heating zone and a second heating zone, the first heating zone and the second heating zone are adjacent in a circumferential direction of the thermally conductive pipe, and the pipe wall thinning portion extends axially along the thermally conductive pipe; or

wherein the first heating zone and the second heating zone are adjacent in an axial direction of the thermally conductive pipe, and the pipe wall thinning portion extends circumferentially along the thermally conductive pipe.

14. The heating assembly according to claim 11, characterized in that the electric heating element is laid on an outer surface of the thermally conductive pipe;

wherein the electric heating element is laid on an inner surface of the thermally conductive pipe; or

wherein the electric heating element is embedded within the pipe wall of the thermally conductive pipe.

15. An aerosol generation device, characterized in that the aerosol generation device comprises a power supply and the heating assembly according to any one of claims 1, 2, 7, 9 and 11, wherein the power supply powers the heating assembly.