Claims

1. A cartridge for use in an electrically operated aerosol-generating system, comprising:

a liquid storage portion comprising a rigid housing holding a liquid aerosol-forming substrate, the housing having an opening; and

a fluid permeable heater assembly comprising a plurality of electrically conductive filaments, wherein the filaments have a diameter between 8 μm and 100 μm, and wherein the fluid permeable heater assembly is fixed to the housing and extends across the opening of the housing.

2. A cartridge according to claim 1, wherein the heater assembly is substantially flat.

3. A cartridge according to claim 1 or 2, wherein the plurality of filaments form a mesh.

4. A cartridge according to any one of claims 1 to 3, wherein the plurality of filaments consists of a plurality of filaments arranged parallel to one another.

5. A cartridge according to claim 1 or 2 wherein the housing of the liquid storage portion contains a capillary material.

6. A cartridge according to claim 5, wherein the capillary material is substantially the same size and shape as the heater assembly and the capillary material is provided in contact with the heater assembly, and wherein the liquid aerosol-forming substrate is drawn via the capillary material to the electrically conductive filament.

7. A cartridge according to claim 5 or 6, wherein the capillary material extends into interstices between the filaments.

8. A cartridge according to claim 5, 6 or 7, wherein the capillary material includes a first capillary material and a second capillary material, the first capillary material in contact with the heater assembly, and the second capillary material in contact with the first capillary material and spaced apart from the heater assembly by the first capillary material, wherein the first capillary material has a higher thermal decomposition temperature than the second capillary material.