CLAIMS

1. A method of controlling aerosol production in an electrically heated smoking device, ~~aerosol-generating device,~~ the device comprising:

a heater comprising at least one heating element; and

a power source for providing power to the heating element, comprising the steps of:

determining the temperature of the heating element; and

adjusting the power to the heating element to maintain the temperature of the heating element within a desired temperature range, wherein the desired temperature range is dynamically calculated based on a measured flow rate of gas through or past the device.

2. A method according to claim 1, wherein the desired temperature range is dependent on a composition of an aerosol-forming substrate received in the device.

3. A method according to any preceding claim, wherein the step of adjusting the power is performed only when the heating element has reached a specific temperature within the desired temperature range.

4. A method according to any preceding claim, wherein the step of adjusting the power is performed only after specific time has elapsed following detection of a flow of gas through the device exceeding a predetermined threshold flow rate.

5. A method according to any preceding claim, further comprising the step of cutting or reducing power to the heating element based on a calculated parameter related to flow rate following the step of adjusting.

6. A method according to any preceding claim wherein the step of adjusting the power to the heating element comprises adjusting a frequency or a pulse width modulation of a pulsed power signal.

7. A method according to any preceding claim, wherein the desired temperature range consists of a single desired temperature.

8. An electrically heated smoking device, ~~operated aerosol generating device,~~ the device comprising: at least one heating element for forming an aerosol from a substrate; a power supply for supplying power to the heating element; and electric circuitry for controlling supply of power from the power supply to the at least one aerosol generating element, wherein the electric circuitry is arranged to:

determine the temperature of the heating element and adjust the power to the heating element to maintain the temperature of the heating element within a desired temperature range, wherein the desired temperature range is dynamically calculated based on a measured flow rate of gas through or past the device.

9. A device according to claim 8, wherein the device is configured to allow a flow of gas past the substrate and comprises a flow sensor for detecting the flow of gas past the substrate, wherein the electric circuitry is arranged to control the supply of power to the heating element based on an output of the flow sensor.

~~10. A device according to claim 8 or 9, wherein the device is an electrically heated smoking device.~~

~~11~~10. Electric circuitry for an electrically heated smoking device, the device comprising: at least one heating element for forming an aerosol from a substrate; and a power supply for supplying power to the heating element; ~~and electric circuitry for controlling supply of power from the power supply to the at least one aerosol generating element, operated aerosol generating device,~~ the electric circuitry being arranged to perform the method of claim 1.

~~12~~11. A computer program which, when run on programmable electric circuitry for an electrically heated smoking device, the device comprising: at least one heating element for forming an aerosol from a substrate; and a power supply for supplying power to the heating element; ~~and electric circuitry for controlling supply of power from the power supply to the at least one aerosol generating element, operated aerosol~~

~~generating device,~~ causes the programmable electric circuitry to perform the method of any one of claims 1 to 7.

~~13~~12. A computer readable storage medium having stored thereon a computer program according to claim ~~12~~11.