materials. Examples of suitable materials include metals, alloys, plastics or composite materials containing one or more of those materials, or thermoplastics that are suitable for food or pharmaceutical applications, for example polypropylene, polyetheretherketone (PEEK) and polyethylene. Preferably, the material is light and non-brittle.

Preferably, the aerosol generating system is portable. The aerosol generating system may be a smoking system and may have a size comparable to a conventional cigar or cigarette. The smoking system may have a total length between approximately 30 mm and approximately 150 mm. The smoking system may have an external diameter between approximately 5 mm and approximately 30 mm.

Preferably, the electrically operated aerosol generating system is an electrically heated smoking system.

According to a second aspect of the invention, there is provided a method comprising: providing an electrically operated aerosol generating system comprising a liquid storage portion for storing liquid aerosol-forming substrate and an electric heater comprising at least one heating element for heating the liquid aerosol-forming substrate; and determining depletion of liquid aerosol-forming substrate heated by the heater based on a relationship between a power applied to the heating element and a resulting temperature change of the heating element.

The amount of liquid aerosol-forming substrate may be an absolute amount or a relative amount, e.g. a percentage value, or may be a determination that there is more or less than a threshold amount of liquid aerosol-forming substrate in the liquid storage portion.

According to a third aspect of the invention, there is provided electric circuitry for an electrically operated aerosol generating system comprising a liquid storage portion for storing liquid aerosol-forming substrate and an electric heater comprising at least one heating element for heating the liquid aerosol-forming substrate, the electric circuitry being arranged to perform at least the following: determining depletion of liquid aerosol-forming substrate heated by the heater based on a relationship between a power applied to the heating element and a resulting temperature change of the heating element.~~, the electric circuitry being arranged to perform the method of the second aspect of the invention.~~

According to a fourth aspect of the invention, there is provided a computer program which, when run on programmable electric circuitry for an electrically operated aerosol generating system comprising a liquid storage portion for storing liquid aerosol-forming substrate and an electric heater comprising at least one heating element for heating the liquid aerosol-forming substrate, causes the programmable electric circuitry to perform at least the following: determining depletion of liquid aerosol-forming substrate heated by the heater based on a relationship between a power applied to the heating element and a resulting temperature change of the heating element.~~, causes the programmable electric circuitry to perform the method of the second aspect of the invention.~~

According to a fifth aspect of the invention, there is provided a computer readable storage medium for running on programmable electric circuitry for an electrically operated aerosol generating system comprising a liquid storage portion for storing liquid aerosol-forming substrate and an electric heater comprising at least one heating element for heating the liquid aerosol-forming substrate, the computer readable storage medium having stored thereon a computer program that causes the programmable electric circuitry to perform at least the following: determining depletion of liquid aerosol-forming substrate heated by the heater based on a relationship between a power applied to the heating element and a resulting temperature change of the heating element.~~having stored thereon a computer program according to the fourth aspect of the invention.~~

Features described in relation to the aerosol generating system of the invention may also be applicable to the method of the invention. And, features described in relation to the method of the invention may also be applicable to the aerosol generating system of the invention.

The invention will be further described, by way of example only, with reference to the accompanying drawings, of which:

Figure 1 shows one example of an electrically operated aerosol generating system having a liquid storage portion;

Figure 2 is a plot showing five medians of temperature profiles of the heating element during multiple puffs of an electrically operated aerosol generating system;

Figure 3 is a plot showing the rate of temperature increase of the heating element over the entire life of a liquid storage portion, calculated at three different time periods;

Figure 4 is a plot showing, on the y-axis, heating element resistance and, on the x-axis, heating element temperature of an electric heater of an electrically operated aerosol generating system; and

Figure 5 is a schematic circuit diagram, which allows heating element resistance to be measured, according to one embodiment of the invention.

Figure 1 shows one example of an electrically operated aerosol generating system having a liquid storage portion. In Figure 1, the system is a smoking system. The smoking system 100 of Figure 1 comprises a housing 101 having a mouthpiece end 103 and a body end 105. In the body end, there is provided an electric power supply in the form of battery 107 and electric circuitry 109. A puff detection system 111 is also provided in cooperation with the electric circuitry 109. In the mouthpiece end, there is provided a liquid storage portion in the form of cartridge 113 containing liquid 115, a capillary wick 117 and a heater 119. Note that the heater is only shown schematically in Figure 1. In the exemplary embodiment shown in Figure 1, one end of capillary wick 117 extends into cartridge 113 and the other end of capillary wick 117 is surrounded by the heater 119. The heater is connected to the electric circuitry via connections 121, which may pass along the outside of cartridge 113 (not