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(54) AEROSOL-GENERATING ARTICLE COMPRISING A PLURALITY OF PORTIONS OF AEROSOL-GENERATING SUBSTRATE

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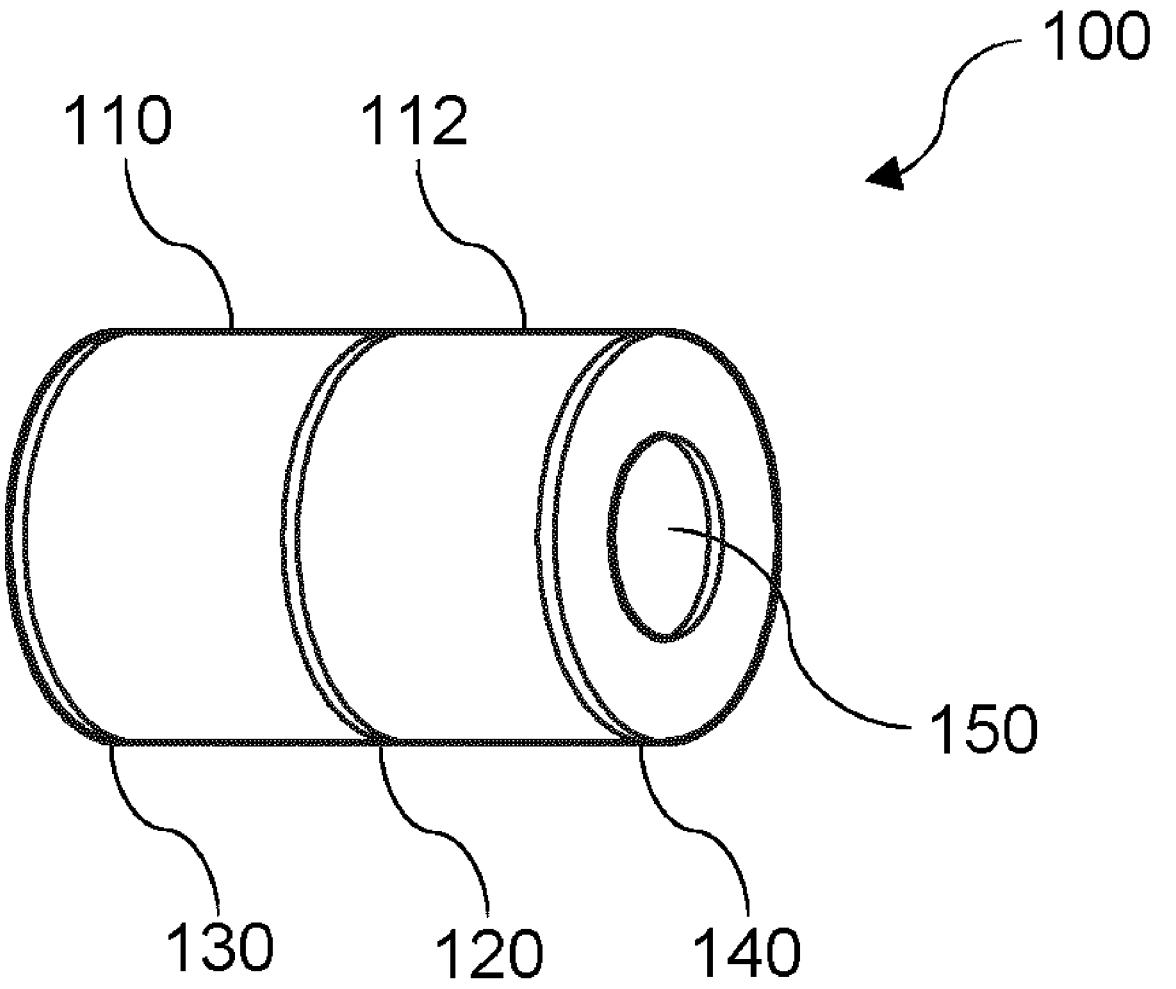
(57) **ABSTRACT**

An aerosol-generating article having a proximal end and a distal end is provided, the aerosol-generating article including: a plurality of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article; a first barrier located between the plurality of portions of aerosol-generating substrate and the distal end of the aerosol-generating article; and one or more separators, the plurality of portions of aerosol-generating substrate including two portions of aerosol-generating substrate that are separated from one another by at least one of the one or more separators, and the first barrier and the one or more separators being substantially air-impermeable.



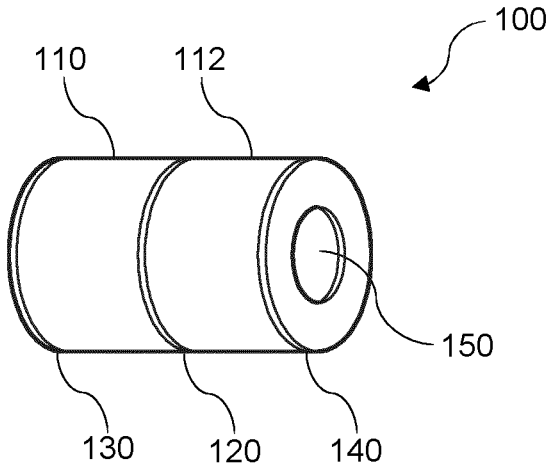


Figure 1

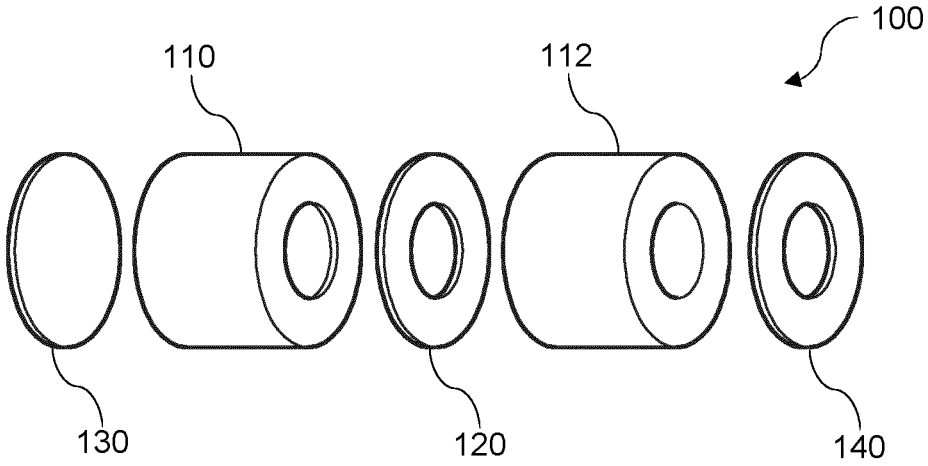


Figure 2

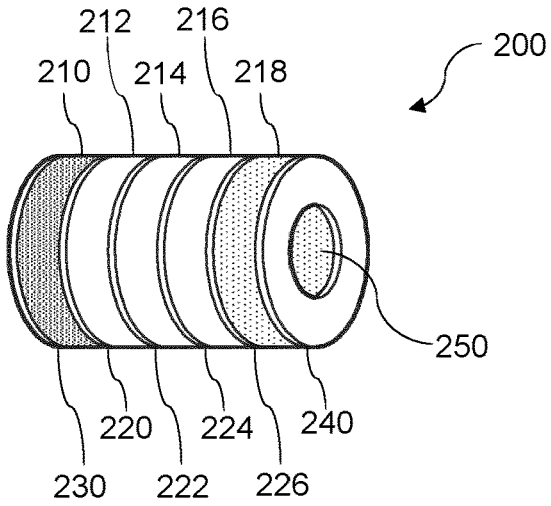


Figure 3

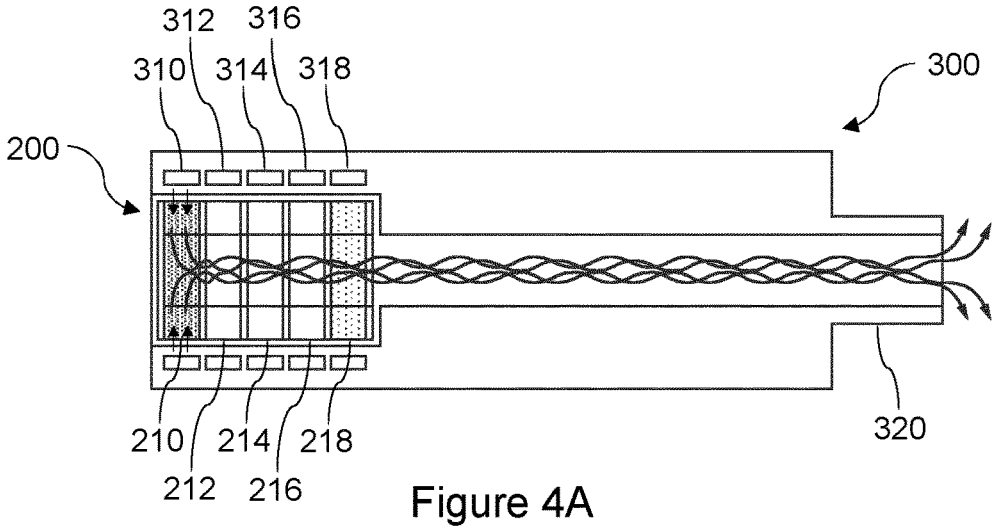


Figure 4A

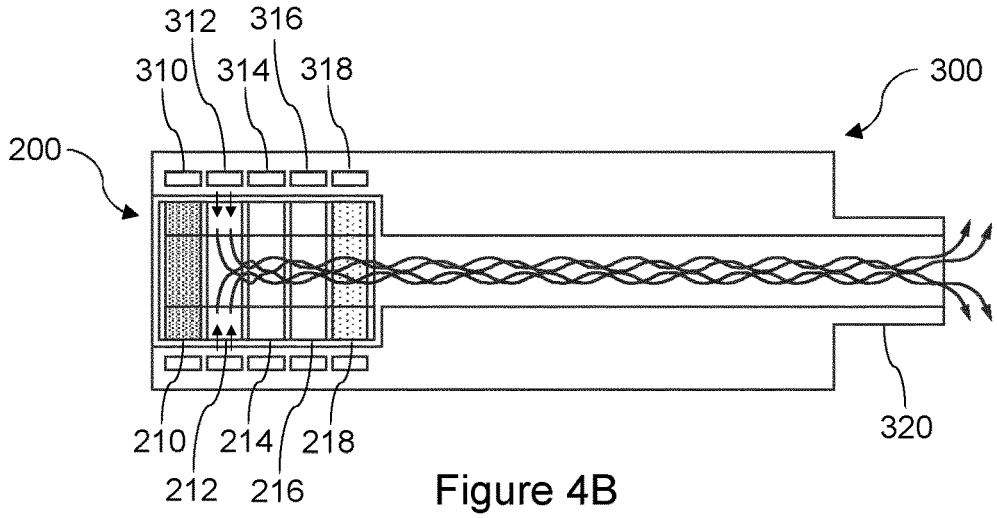


Figure 4B

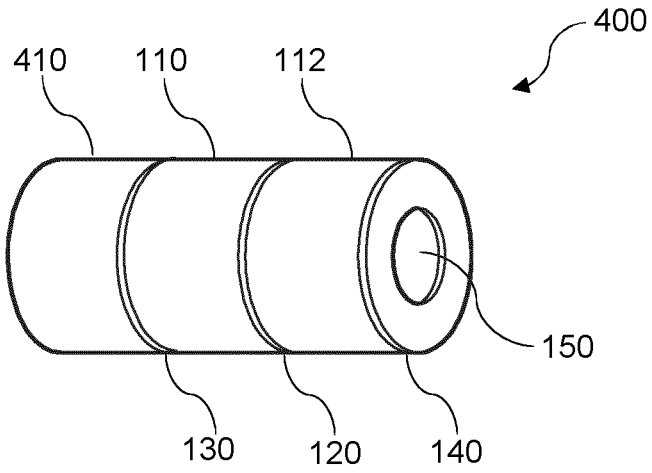


Figure 5

AEROSOL-GENERATING ARTICLE COMPRISING A PLURALITY OF PORTIONS OF AEROSOL-GENERATING SUBSTRATE

[0001] The invention relates to an aerosol-generating article comprising a plurality of portions of aerosol-generating substrate for generating an inhalable aerosol upon heating. The invention also relates to an aerosol-generating system comprising the aerosol-generating article and an aerosol-generating device configured to heat the aerosol-generating article.

[0002] Aerosol-generating articles in which an aerosol-generating substrate, such as a tobacco-containing material, is heated rather than combusted are known in the art. An aim of such 'heated' aerosol-generating articles is to reduce known harmful smoke constituents of the type produced by the combustion and pyrolytic degradation of tobacco in conventional cigarettes.

[0003] Typically, in heated aerosol-generating articles an aerosol is generated by the transfer of heat from a heat source to a physically separate aerosol-generating substrate. In use, volatile compounds are released from the aerosol-generating substrate by heat transfer from the heat source to the aerosol-generating substrate and are entrained in air drawn through the aerosol-generating article. As the released compounds cool, they condense to form an aerosol that is inhaled by the user.

[0004] A number of handheld aerosol-generating devices configured to heat aerosol-generating substrates of heated aerosol-generating articles are known in the art. These include electrically-operated aerosol-generating devices in which an aerosol is generated by the transfer of heat from one or more electrical heating elements of the aerosol-generating device to the aerosol-generating substrate of the heated aerosol-generating article. Known handheld electrically operated aerosol-generating devices typically comprise a battery, control electronics and one or more electrical heating elements for heating the aerosol-generating substrate of a heated aerosol-generating article designed specifically for use with the aerosol-generating device.

[0005] Some known electrically-operated aerosol-generating devices comprise an internal heating element that is configured to be inserted into the aerosol-generating substrate of a heated aerosol-generating article. Other known electrically-operated aerosol-generating devices comprise one or more external heating elements. For example, WO 2020/115151 A1 discloses an aerosol-generating system comprising an aerosol-generating article and an electrically-operated aerosol-generating device comprising an external heating element that circumscribes the outer periphery of the aerosol-generating article.

[0006] Electrically-operated aerosol-generating devices comprising an inductor configured to inductively heat aerosol-generating substrates of heated aerosol-generating articles are also known in the art. For example, WO 2015/176898 A1 discloses an aerosol-generating system comprising an aerosol-generating article comprising an elongate susceptor in thermal contact with the aerosol-generating substrate and an electrically-operated aerosol-generating device having an inductor for heating the aerosol-generating substrate. In use, the fluctuating or alternating electromagnetic field produced by the inductor induces eddy currents in the susceptor, causing the susceptor to heat up as a result of one or both of resistive losses (Joule heating) and, where the susceptor is magnetic, hysteresis losses. Heat generated in the susceptor is transferred to the aerosol-forming substrate by conduction.

[0007] One known type of heated aerosol-generating article, commonly referred to as a heat-not-burn tobacco product or heated tobacco product, comprises a solid aerosol-generating substrate comprising tobacco material, which is heated to produce an inhalable aerosol. Known heated tobacco products typically comprise a single portion of aerosol-generating substrate. In use, air is typically drawn through the entire length of the single portion of aerosol-generating substrate during each puff by a user. This may adversely impact the quality and consistency of aerosol delivered to a user in successive puffs. In particular, where a user interrupts and then subsequently resumes use of the heated tobacco product. For example, where a user interrupts and then subsequently resumes use of the heated tobacco product, the quality of aerosol delivered to a user after resumption of use of the heated tobacco product may be significantly poorer than the quality of aerosol delivered to a user prior to interruption of use of the heated tobacco product. As a result, where a user interrupts use of the heated tobacco product, a user may choose to dispose of the partially used heated tobacco product rather than resuming use of the heated tobacco product.

[0008] It would be desirable to provide an aerosol-generating article in which the quality and consistency of aerosol delivered to a user in successive puffs is improved compared to known heated tobacco products of the type described above.

[0009] It would be desirable to provide an aerosol-generating article that allows use of the aerosol-generating article to be interrupted and then subsequently resumed by a user without adversely affecting the quality of aerosol delivered to a user.

[0010] The invention relates to an aerosol-generating article having a proximal end and a distal end. The aerosol-generating article may comprise a plurality of portions of aerosol-generating substrate. The plurality of portions of aerosol-generating substrate may be arranged in a series along a longitudinal direction of the aerosol-generating article. The aerosol-generating article may comprise a first barrier. The first barrier may be located between the plurality of portions of aerosol-generating substrate and the distal end of the aerosol-generating article. The first barrier may be substantially air-impermeable. The aerosol-generating substrate may comprise one or more separators. The plurality of portions of aerosol-generating substrate may comprise two portions of aerosol-generating substrate that are separated from one another by at least one of the one or more separators. The one or more separators may be substantially air-impermeable.

[0011] According to a first aspect of the invention there is provided an aerosol-generating article having a proximal end and a distal end, the aerosol-generating article comprising: a plurality of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article; a first barrier located between the plurality of portions of aerosol-generating substrate and the distal end of the aerosol-generating article; and one or more separators, wherein the plurality of portions of aerosol-generating substrate comprise two portions of aerosol-generating substrate that are separated from one another by at

least one of the one or more separators, and wherein the first barrier and the one or more separators are substantially air-impermeable.

[0012] The invention also relates to an aerosol-generating system. The aerosol-generating system may comprise an aerosol-generating article as described above. The aerosol-generating system may comprise an aerosol-generating device. The aerosol-generating device may be configured to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article.

[0013] According to a second aspect of the invention there is provided an aerosol-generating system comprising: an aerosol-generating article according to the first aspect of the invention; and an aerosol-generating device configured to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article.

[0014] Aerosol-generating articles according to the first aspect of the invention comprise a plurality of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article, a first barrier located between the plurality of portions of aerosol-generating substrate and the distal end of the aerosol-generating article, and one or more separators, wherein the plurality of portions of aerosol-generating substrate comprise two portions of aerosol-generating substrate that are separated from one another by at least one of the one or more separators, and wherein the first barrier and the one or more separators are substantially air-impermeable. Inclusion of these features in aerosol-generating articles according to the first aspect of the invention may advantageously enable aerosol generated upon heating of each one of the two portions of aerosol-generating substrate to be delivered to a user without being drawn through the other one of the two portions of aerosol-generating substrate. This may advantageously improve the quality and consistency of aerosol delivered to a user in successive puffs. As described further below, this may also advantageously allow use of aerosol-generating articles according to the first aspect of the invention to be interrupted and then subsequently resumed by a user without adversely affecting the quality of aerosol delivered to a user.

[0015] As used herein with reference to the invention, the term "aerosol-generating article" is used to describe an article comprising an aerosol-generating substrate that is heated to generate an inhalable aerosol for delivery to a user.

[0016] As used herein with reference to the invention, the term "aerosol-generating substrate" is used to describe a substrate comprising aerosol-generating material that is capable of releasing upon heating volatile compounds that can generate an aerosol.

[0017] As used herein with reference to the invention, the term "aerosol" is used to describe a dispersion of solid particles, or liquid droplets, or a combination of solid particles and liquid droplets, in a gas. The aerosol may be visible or invisible. The aerosol may include vapours of substances that are ordinarily liquid or solid at room temperature as well as solid particles, or liquid droplets, or a combination of solid particles and liquid droplets.

[0018] As used herein with reference to the invention, the term "aerosol-generating device" is used to describe a device that interacts with the aerosol generating substrate of the aerosol-generating article to generate an aerosol.

[0019] Aerosol-generating articles according to the invention have a proximal end through which, in use, an aerosol exits the aerosol-generating article for delivery to a user. The proximal end of the aerosol-generating article may also be referred to as the downstream end or mouth end of the aerosol-generating article. In use, a user draws directly or indirectly on the proximal end of the aerosol-generating article in order to inhale an aerosol generated by the aerosol-generating article.

[0020] Aerosol-generating articles according to the invention have a distal end. The distal end is opposite the proximal end. The distal end of the aerosol-generating article may also be referred to as the upstream end of the aerosol-generating article.

[0021] Components of aerosol-generating articles according to the invention may be described as being upstream or downstream of one another based on their relative positions between the proximal end of the aerosol-generating article and the distal end of the aerosol-generating article.

[0022] As used herein with reference to the invention, the term "longitudinal" is used to describe the direction between the proximal end and the distal end of the aerosol-generating article.

[0023] As used herein with reference to the invention, the term "length" is used to describe the maximum dimension of aerosol-generating articles according to the invention and components of aerosol-generating articles according to the invention in the longitudinal direction. That is, the maximum dimension of aerosol-generating articles according to the invention and components of aerosol-generating articles according to the invention in the direction between the proximal end and the opposed distal end of the aerosol-generating article.

[0024] As used herein with reference to the invention, the term "transverse" is used to describe the direction perpendicular to the longitudinal direction. That is, the direction perpendicular to the direction between the proximal end and the distal end of the aerosol-generating article.

[0025] As used herein with reference to the invention, the term "width" is used to describe the maximum dimension of components of the aerosol-generating article in the transverse direction of the aerosol-generating article.

[0026] As used herein with reference to the invention, the term "airflow pathway" is used to describe a route along which air may be drawn through the aerosol-generating article.

[0027] The aerosol-generating article comprises a plurality of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article. That is, the aerosol-generating article comprise two or more portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article.

[0028] The plurality of portions of aerosol-generating substrate are physically distinct from one another.

[0029] The number of portions of aerosol-generating substrate may be selected based on a desired number of puffs of aerosol to be delivered to a user.

[0030] The plurality of portions of aerosol-generating substrate may comprise three or more portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise three or more portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article.

[0031] The plurality of portions of aerosol-generating substrate may comprise four or more portions of aerosol-

generating substrate. That is, the aerosol-generating article may comprise four or more portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article.

[0032] The plurality of portions of aerosol-generating substrate may comprise up to ten portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise up to ten portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article.

[0033] The plurality of portions of aerosol-generating substrate may comprise up to eight portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise up to eight portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article.

[0034] The plurality of portions of aerosol-generating substrate may comprise up to six portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise up to six portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article.

[0035] The plurality of portions of aerosol-generating substrate may comprise between two and ten portions of aerosol-generating substrate, between two and eight portions of aerosol-generating substrate, or between two and six portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise between two and ten portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article, between two and eight portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article, or between two and six portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article.

[0036] The plurality of portions of aerosol-generating substrate may comprise between three and ten portions of aerosol-generating substrate, between three and eight portions of aerosol-generating substrate, or between three and six portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise between three and ten portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article, between three and eight portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article, or between three and six portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article.

[0037] The plurality of portions of aerosol-generating substrate may comprise between four and ten portions of aerosol-generating substrate, between four and eight portions of aerosol-generating substrate, or between four and six portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise between four and ten portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article, between four and eight portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article, or between four and six portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article.

[0038] The plurality of portions of aerosol-generating substrate may comprise five portions of aerosol-generating substrate.

[0039] The plurality of portions of aerosol-generating substrate may have any desired length.

[0040] Each of the plurality of portions of aerosol-generating substrate may have substantially the same length.

[0041] Each of the plurality of portions of aerosol-generating substrate may have a length of at least about 3 millimetres, or at least about 4 millimetres.

[0042] Each of the plurality of portions of aerosol-generating substrate may have a length of up to about 10 millimetres, up to about 8 millimetres, or up to about 6 millimetres.

[0043] Each of the plurality of portions of aerosol-generating substrate may have a length of between about 3 millimetres and about 10 millimetres, between about 3 millimetres and about 8 millimetres, or between about 3 millimetres and 6 millimetres.

[0044] Each of the plurality of portions of aerosol-generating substrate may have a length of between about 4 millimetres and about 10 millimetres, between about 4 millimetres and about 8 millimetres, or between about 4 millimetres and 6 millimetres.

[0045] Each of the plurality of portions of aerosol-generating substrate may have a length of about 5 millimetres.

[0046] The plurality of portions of aerosol-generating substrate may have any desired width.

[0047] Each of the plurality of portions of aerosol-generating substrate may have substantially the same width.

[0048] Each of the plurality of portions of aerosol-generating substrate may have a width of at least about 5 millimetres, or at least about 6 millimetres.

[0049] Each of the plurality of portions of aerosol-generating substrate may have a width of up to about 12 millimetres, up to about 10 millimetres, or up to about 8 millimetres.

[0050] Each of the plurality of portions of aerosol-generating substrate may have a width of between about 5 millimetres and about 12 millimetres, between about 5 millimetres and about 10 millimetres, or between about 5 millimetres and about 8 millimetres.

[0051] Each of the plurality of portions of aerosol-generating substrate may have a width of between about 6 millimetres and about 12 millimetres, between about 6 millimetres and about 10 millimetres, or between about 6 millimetres and about 8 millimetres.

[0052] The plurality of portions of aerosol-generating substrate may have a width that is substantially the same as a width of the aerosol-generating article.

[0053] The plurality of portions of aerosol-generating substrate may have any desired shape.

[0054] Each of the plurality of portions of aerosol-generating substrate may have substantially the same shape.

[0055] Each of the plurality of portions of aerosol-generating substrate may have a substantially annular transverse cross-section.

[0056] Where the plurality of portions of aerosol-generating substrate have a substantially annular transverse cross-section, the width of the plurality of portions of aerosol-generating substrate corresponds to an external annular diameter of the plurality of portions of aerosol-generating substrate.

[0057] Where the plurality of portions of aerosol-generating substrate have a substantially annular transverse cross-section, each of the plurality of portions of aerosol-generating substrate may have an internal annular diameter of at least about 2 millimetres, or at least about 3 millimetres.

[0058] Each of the plurality of portions of aerosol-generating substrate may have an internal annular diameter of up to about 9 millimetres, up to about 7 millimetres, or up to about 5 millimetres.

[0059] Each of the plurality of portions of aerosol-generating substrate may have an internal annular diameter of between about 2 millimetres and about 9 millimetres, between about 2 millimetres and about 7 millimetres, or between about 2 millimetres and about 5 millimetres.

[0060] Each of the plurality of portions of aerosol-generating substrate may have an internal annular diameter of between about 3 millimetres and about 9 millimetres, between about 3 millimetres and about 7 millimetres, or between about 3 millimetres and about 5 millimetres.

[0061] Each of the plurality of portions of aerosol-generating substrate may have substantially the same shape and dimensions. This may advantageously facilitate manufacture of the aerosol-generating article.

[0062] The aerosol-generating article comprises one or more separators.

[0063] The number of separators may be selected based on a desired number of potential interruptions in use of the aerosol-generating article by a user.

[0064] The aerosol-generating article may comprise two or more separators.

[0065] The aerosol-generating article may comprise three or more separators.

[0066] The aerosol-generating article may comprise up to nine separators.

[0067] The aerosol-generating article may comprise up to seven separators.

[0068] The aerosol-generating article may comprise up to five separators.

[0069] The aerosol-generating article may comprise between two and nine separators, between two and seven separators, or between two and five separators.

[0070] The aerosol-generating article may comprise between three and nine separators, between three and seven separators, or between three and five separators.

[0071] The aerosol-generating article may comprise four separators.

[0072] The number of separators may be the same as the number of portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise n separators, where "n" is the number of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article. For example, the plurality of portions of aerosol-generating substrate may comprise five portions of aerosol-generating substrate and the aerosol-generating article may comprise five separators.

[0073] The number of separators may be greater than the number of portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise greater than or equal to n+1 separators, where "n" is the number of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article. For example, the plurality of portions of aerosol-generating substrate may comprise five portions of aerosol-generating substrate and the aerosol-generating article may comprise six separators.

[0074] The number of separators may be less than the number of portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise less than or equal to n−1 separators, where "n" is the number of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article.

[0075] Preferably, the aerosol-generating article comprises n−1 separators, where "n" is the number of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article. For example, the plurality of portions of aerosol-generating substrate may comprise five portions of aerosol-generating substrate and the aerosol-generating article may comprise four separators.

[0076] The plurality of portions of aerosol-generating substrate comprise two portions of aerosol-generating substrate that are separated from one another by at least one of the one or more separators.

[0077] The plurality of portions of aerosol-generating substrate may comprise two or more portions of aerosol-generating substrate that are not separated from one another by at least one of the one or more separators. For example, where the plurality of portions of aerosol-generating substrate comprises five portions of aerosol-generating substrate, the plurality of portions of aerosol-generating substrate may comprise three portions of aerosol-generating substrate that are separated from one another by at least one of the one or more separators and two portions of aerosol-generating substrate that are not separated from one another by at least one of the one or more separators.

[0078] Advantageously, each of the plurality of portions of aerosol-generating substrate in the series may be separated from other portions of aerosol-generating substrate in the series by at least one of the one or more separators. For example, the plurality of portions of aerosol-generating substrate may comprise five portions of aerosol-generating substrate that are each separated from one another by at least one of the one or more separators.

[0079] The plurality of portions of aerosol-generating substrate and the one or more separators may be arranged in an alternating series along the longitudinal direction of the aerosol-generating article. For example, where the plurality of portions of aerosol-generating substrate comprise three portions of aerosol-generating substrate and the aerosol-generating article comprises two separators, the three portions of aerosol-generating substrate and the two separators may be arranged along the longitudinal direction of the aerosol-generating article in the order: portion of aerosol-generating substrate, separator, portion of aerosol-generating substrate, separator, portion of aerosol-generating substrate.

[0080] The one or more separators may abut the plurality of portions of aerosol-generating substrate.

[0081] Each of the one or more separators may abut at least one of the plurality of portions of aerosol-generating substrate.

[0082] Each of the one or more separators may abut two of the plurality of portions of aerosol-generating substrate.

[0083] The one or more separators may be affixed to the plurality of portions of aerosol-generating substrate. For

example, the one of the one or more separators may be adhered to the plurality of portions of aerosol-generating substrate.

[0084] Each of the one or more separators may be affixed to at least one of the plurality of portions of aerosol-generating substrate.

[0085] Each of the one or more separators may be affixed to two portions of the plurality of portions of aerosol-generating substrate.

[0086] The one or more separators may be a coating applied to the plurality of portions of aerosol-generating substrate.

[0087] Each of the one or more separators may be a coating applied to at least one of the plurality of portions of aerosol-generating substrate.

[0088] Each of the one or more separators may be a coating applied to two portions of the plurality of portions of aerosol-generating substrate.

[0089] The one or more separators may have any desired length.

[0090] Each of the one or more separators may have substantially the same length.

[0091] Each of the one or more separators may have a length of at least about 0.1 millimetres, at least about 0.2 millimetres, or at least about 0.3 millimetres.

[0092] Each of the one or more separators may have a length of up to about 1 millimetre, up to about 0.8 millimetres, or up to about 0.6 millimetres.

[0093] Each of the one or more separators may have a length of between about 0.1 millimetres and about 1 millimetre, between about 0.1 millimetres and about 0.8 millimetres, or between about 0.1 millimetres and about 0.6 millimetres.

[0094] Each of the one or more separators may have a length of between about 0.2 millimetres and about 1 millimetre, between about 0.2 millimetres and about 0.8 millimetres, or between about 0.2 millimetres and about 0.6 millimetres.

[0095] Each of the one or more separators may have a length of between about 0.3 millimetres and about 1 millimetre, or between about 0.3 millimetres and about 0.8 millimetres, or between about 0.3 millimetres and about 0.6 millimetres.

[0096] The one or more separators may have any desired width.

[0097] Each of the one or more separators may have substantially the same width.

[0098] Each of the one or more separators may have a width of at least about 5 millimetres, or at least about 6 millimetres.

[0099] Each of the one or more separators may have a width of up to about 12 millimetres, up to about 10 millimetres, or up to about 8 millimetres.

[0100] Each of the one or more separators may have a width of between about 5 millimetres and about 12 millimetres, between about 5 millimetres and about 10 millimetres, or between about 5 millimetres and about 8 millimetres.

[0101] Each of the one or more separators may have a width of between about 6 millimetres and about 12 millimetres, or between about 6 millimetres and about 10 millimetres, or between about 6 millimetres and about 8 millimetres.

[0102] The one or more separators may have a width that is substantially the same as a width of the aerosol-generating article.

[0103] The one or more separators may have any desired shape.

[0104] Each of the one or more separators may have substantially the same shape.

[0105] Each of the one or more separators may have a substantially annular transverse cross-section.

[0106] Where the one or more separators have a substantially annular transverse cross-section, the width of the one or more separators corresponds to an external annular diameter of the one or more separators.

[0107] Where the one or more separators have a substantially annular transverse cross-section, each of the one or more separators may have an internal annular diameter of at least about 2 millimetres, or at least about 3 millimetres.

[0108] Each of the one or more separators may have an internal annular diameter of up to about 9 millimetres, up to about 7 millimetres, or up to about 5 millimetres.

[0109] Each of the one or more separators may have an internal annular diameter of between about 2 millimetres and about 9 millimetres, between about 2 millimetres and about 7 millimetres, or between about 2 millimetres and about 5 millimetres.

[0110] Each of the one or more separators may have an internal annular diameter of between about 3 millimetres and about 9 millimetres, between about 3 millimetres and about 7 millimetres, or between about 3 millimetres and about 5 millimetres.

[0111] Each of the one or more separators may have substantially the same shape and dimensions. This may advantageously facilitate manufacture of the aerosol-generating article.

[0112] The one or more separators are substantially air-impermeable.

[0113] Advantageously, the air permeability of the one or more separators is such that airflow through the one or more separators between portions of aerosol-generating substrate that are separated from one another by the one of the one or more separators is substantially prevented.

[0114] Each of the one or more separators may have an oxygen permeability of between about 800 $cm^3 \cdot \mu m/(m^2 \cdot d \cdot bar)$ and about 1900 $cm^3 \cdot \mu m/(m^2 \cdot d \cdot bar)$. Preferably, each of the one or more separators has an oxygen permeability of between about 1100 $cm^3 \cdot \mu m/(m^2 \cdot d \cdot bar)$ and about 1800 $cm^3 \cdot \mu m/(m^2 \cdot d \cdot bar)$. More preferably, each of the one or more separators has an oxygen permeability of between about 1400 $cm^3 \cdot \mu m/(m^2 \cdot d \cdot bar)$ and about 900 $cm^3 \cdot \mu m/(m^2 \cdot d \cdot bar)$.

[0115] Each of the one or more separators may have a water permeability of between about 200 $g \cdot \mu m/(m^2 \cdot d)$ and about 900 $g \cdot \mu m/(m^2 \cdot d)$. Preferably, each of the one or more separators has a water permeability of between about 280 $g \cdot \mu m/(m^2 \cdot d)$ and about 800 $g \cdot \mu m/(m^2 \cdot d)$. More preferably, each of the one or more separators has a water permeability of between about 400 $g \cdot \mu m/(m^2 \cdot d)$ and about 700 $g \cdot \mu m/(m^2 \cdot d)$.

[0116] The one or more separators may be air-impermeable.

[0117] The one or more separators may be formed from one or more suitable materials. Suitable materials are known in the art and include, but are not limited to: plastic materials; ceramic materials; impregnated papers, such as papers

impregnated with wax and papers impregnated with glycerol; polymer films; metallised films; laminated polymer films; laminated metallised films; and combinations thereof.

[0118] Suitable polymer films include but are not limited to, films formed from one or more of: polyimide (PI); polyaryletherketones (PAEK), such as poly ether ketone (PEK), polyether ether ketone (PEEK), and polyetherketoneetherketoneketone (PEKEKK); and fluoric polymers, such as polytetrafluoroethylene (PTFE), polyvinylidene fluoride (PVDF), ethylene tetrafluoroethylene (ETFE), electrically conductive polyvinylidene fluoride (PVDFELS), and fluorinated ethylene propylene (FEP).

[0119] The one or more separators may be formed from a substantially air-impermeable adhesive.

[0120] The one or more separators may be heat-insulative.

[0121] This may advantageously reduce or substantially prevent heat transfer between portions of aerosol-generating substrate that are separated from one another by the one of the one or more separators.

[0122] As used herein with reference to the invention, the term "heat-insulative material" is used to describe separator having a thermal conductivity of less than about 50 milliwatts per metre Kelvin (mW/(m·K)) at 23° C. and a relative humidity of 50% as measured using the modified transient plane source (MTPS) method.

[0123] Where the aerosol-generating article comprises two or more separators, the two or more separators may be substantially identical. That is, each of the two or more separators may have substantially the same composition, shape and dimensions. This may advantageously facilitate manufacture of the aerosol-generating article.

[0124] The aerosol-generating article comprises a first barrier located between the plurality of portions of aerosol-generating substrate and the distal end of the aerosol-generating article. The first barrier may be described as being upstream of the plurality of portions of aerosol-generating substrate. That is, according to the first aspect of the invention there is provided an aerosol-generating article having a proximal end and a distal end, the aerosol-generating article comprising: a plurality of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article; a first barrier located upstream of the plurality of portions of aerosol-generating substrate; and one or more separators, wherein the plurality of portions of aerosol-generating substrate comprise two portions of aerosol-generating substrate that are separated from one another by at least one of the one or more separators, and wherein the first barrier and the one or more separators are substantially air-impermeable.

[0125] The first barrier may be located at a distal end of the plurality of portions of aerosol-generating substrate.

[0126] The first barrier may be affixed to a distal end of one of the plurality of portions of aerosol-generating substrate.

[0127] The aerosol-generating article may comprise one or more components between the first barrier and the distal end of the aerosol-generating article. That is, the aerosol-generating article may comprise one or more components upstream of the first barrier. For example, the aerosol-generating article may comprise a plug of cellulose acetate tow located upstream of the first barrier.

[0128] The first barrier may be located at the distal end of the aerosol-generating article.

[0129] The first barrier is substantially air-impermeable.

[0130] The first barrier may be air-impermeable.

[0131] The first barrier may advantageously substantially prevent air from being drawn into the aerosol-generating article through the distal end of the aerosol-generating article.

[0132] The first barrier may advantageously prevent air from being drawn into the aerosol-generating article through the distal end of the aerosol-generating article.

[0133] The first barrier may advantageously form a hermetic seal at the distal end of the aerosol-generating article.

[0134] The first barrier may have any desired length.

[0135] The first barrier may have a length of at least about 0.1 millimetres, at least about 0.2 millimetres, or at least about 0.3 millimetres.

[0136] The first barrier may have a length of up to about 1 millimetre, up to about 0.8 millimetres, or up to about 0.6 millimetres.

[0137] The first barrier may have a length of between about 0.1 millimetres and about 1 millimetre, between about 0.1 millimetres and about 0.8 millimetres, or between about 0.1 millimetres and about 0.6 millimetres.

[0138] The first barrier may have a length of between about 0.2 millimetres and about 1 millimetre, between about 0.2 millimetres and about 0.8 millimetres, or between about 0.2 millimetres and about 0.6 millimetres.

[0139] The first barrier may have a length of between about 0.3 millimetres and about 1 millimetre, between about 0.3 millimetres and about 0.8 millimetres, or between about 0.3 millimetres and about 0.6 millimetres.

[0140] The first barrier may have any desired width.

[0141] The first barrier may have a width of at least about 5 millimetres, or at least about 6 millimetres.

[0142] The first barrier may have a width of up to about 12 millimetres, up to about 10 millimetres, or up to about 8 millimetres.

[0143] The first barrier may have a width of between about 5 millimetres and about 12 millimetres, between about 5 millimetres and about 10 millimetres, or between about 5 millimetres and about 8 millimetres.

[0144] The first barrier may have a width of between about 6 millimetres and about 12 millimetres, or between about 6 millimetres and about 10 millimetres, or between about 6 millimetres and about 8 millimetres.

[0145] The first barrier may have a width that is substantially the same as a width of the plurality of portions of aerosol-generating substrate.

[0146] The first barrier may have a width that is substantially the same as a width of the aerosol-generating article.

[0147] The first barrier may have any desired shape.

[0148] The first barrier may have a substantially circular transverse cross-section.

[0149] Where the first barrier has a substantially circular transverse cross-section, the width of the first barrier corresponds to a diameter of the first barrier.

[0150] The first barrier may be formed from one or more suitable materials. Suitable materials are known in the art and include, but are not limited to: plastic materials; ceramic materials; impregnated papers, such as papers impregnated with wax and papers impregnated with glycerol; polymer films; metallised films; laminated polymer films; laminated metallised films; and combinations thereof.

[0151] Suitable polymer films include but are not limited to, films formed from one or more of: polyimide (PI); polyaryletherketones (PAEK), such as poly ether ketone

(PEK), polyether ether ketone (PEEK), and polyetherketoneetherketoneketone (PEKEKK); and fluoric polymers, such as polytetrafluoroethylene (PTFE), polyvinylidene fluoride (PVDF), ethylene tetrafluoroethylene (ETFE), electrically conductive polyvinylidene fluoride (PVDFELS), and fluorinated ethylene propylene (FEP).

[0152] The aerosol-generating article may comprise a second barrier located between the plurality of portions of aerosol-generating substrate and the proximal end of the aerosol-generating article. The second barrier may be described as being downstream of the plurality of portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise a second barrier located downstream of the plurality of portions of aerosol-generating substrate.

[0153] The second barrier may be located at a proximal end of the plurality of portions of aerosol-generating substrate.

[0154] The second barrier may be affixed to a proximal end of one of the plurality of portions of aerosol-generating substrate.

[0155] The second barrier may be a coating applied to one of the plurality of portions of aerosol-generating substrate.

[0156] The second barrier may be located at the proximal end of the aerosol-generating article.

[0157] The second barrier may be substantially air-impermeable.

[0158] The second barrier may be air-impermeable.

[0159] The second barrier may have any desired length.

[0160] The second barrier may have a length of at least about 0.1 millimetres, at least about 0.2 millimetres, or at least about 0.3 millimetres.

[0161] The second barrier may have a length of up to about 1 millimetre, up to about 0.8 millimetres, or up to about 0.6 millimetres.

[0162] The second barrier may have a length of between about 0.1 millimetres and about 1 millimetre, between about 0.1 millimetres and about 0.8 millimetres, or between about 0.1 millimetres and about 0.6 millimetres.

[0163] The second barrier may have a length of between about 0.2 millimetres and about 1 millimetre, between about 0.2 millimetres and about 0.8 millimetres, or between about 0.2 millimetres and about 0.6 millimetres.

[0164] The second barrier may have a length of between about 0.3 millimetres and about 1 millimetre, between about 0.3 millimetres and about 0.8 millimetres, or between about 0.3 millimetres and about 0.6 millimetres.

[0165] The second barrier may have any desired width.

[0166] The second barrier may have a width of at least about 5 millimetres, or at least about 6 millimetres.

[0167] The second barrier may have a width of up to about 12 millimetres, up to about 10 millimetres, or up to about 8 millimetres.

[0168] The second barrier may have a width of between about 5 millimetres and about 12 millimetres, between about 5 millimetres and about 10 millimetres, or between about 5 millimetres and about 8 millimetres.

[0169] The second barrier may have a width of between about 6 millimetres and about 12 millimetres, between about 6 millimetres and about 10 millimetres, or between about 6 millimetres and about 8 millimetres.

[0170] The second barrier may have a width that is substantially the same as a width of the aerosol-generating article.

[0171] The second barrier may have any desired shape.

[0172] The second barrier may have a substantially annular transverse cross-section.

[0173] Where the second barrier has a substantially annular transverse cross-section, the width of the second barrier corresponds to an external annular diameter of the second barrier.

[0174] Where the second barrier has a substantially annular transverse cross-section, the second barrier may have an internal annular diameter of at least about 2 millimetres, or at least about 3 millimetres.

[0175] The second barrier may have an internal annular diameter of up to about 9 millimetres, up to about 7 millimetres, or up to about 5 millimetres.

[0176] The second barrier may have an internal annular diameter of between about 2 millimetres and about 9 millimetres, between about 2 millimetres and about 7 millimetres, or between about 2 millimetres and about 5 millimetres.

[0177] The second barrier may have an internal annular diameter of between about 3 millimetres and about 9 millimetres, between about 3 millimetres and about 7 millimetres, or between about 3 millimetres and about 5 millimetres.

[0178] The second barrier may be formed from one or more suitable materials. Suitable materials are known in the art and include, but are not limited to: plastic materials; ceramic materials; impregnated papers, such as papers impregnated with wax and papers impregnated with glycerol; polymer films; metallised films; laminated polymer films; laminated metallised films; and combinations thereof.

[0179] Suitable polymer films include but are not limited to, films formed from one or more of: polyimide (PI); polyaryletherketones (PAEK), such as poly ether ketone (PEK), polyether ether ketone (PEEK), and polyetherketoneetherketoneketone (PEKEKK); and fluoric polymers, such as polytetrafluoroethylene (PTFE), polyvinylidene fluoride (PVDF), ethylene tetrafluoroethylene (ETFE), electrically conductive polyvinylidene fluoride (PVDFELS), and fluorinated ethylene propylene (FEP).

[0180] The second barrier may be formed from a substantially air-impermeable adhesive.

[0181] The second barrier may be substantially identical to the one or more separators. That is, the second barrier may have substantially the same composition, shape and dimensions as the one or more separators. This may advantageously facilitate manufacture of the aerosol-generating article.

[0182] The aerosol-generating article comprises an airflow pathway along which air may be drawn through the aerosol-generating article for delivery to a user.

[0183] The aerosol-generating article may comprise an airflow channel which forms at least part of the airflow pathway.

[0184] The airflow channel may extend from a distal end of the plurality of portions of aerosol-generating substrate towards the proximal end of the aerosol-generating article.

[0185] The airflow channel may extend from a distal end of the plurality of portions of aerosol-generating substrate to the proximal end of the aerosol-generating article.

[0186] The airflow channel may extend from the first barrier towards the proximal end of the aerosol-generating article.

[0187] The airflow channel may extend from the first barrier to the proximal end of the aerosol-generating article.

[0188] The plurality of portions of aerosol-generating substrate may be located about a perimeter of the airflow channel.

[0189] The one or more separators may be located about a perimeter of the airflow channel.

[0190] The plurality of portions of aerosol-generating substrate and the one or more separators may be located about a perimeter of the airflow channel.

[0191] Where each of the plurality of portions of aerosol-generating substrate has a substantially annular transverse cross-section, the plurality of portions of aerosol-generating substrate may circumscribe the airflow channel.

[0192] Where each of the one or more separators has a substantially annular transverse cross-section, the one or more separators may circumscribe the airflow channel.

[0193] The airflow channel may be partially or completely filled.

[0194] The airflow channel may comprise a porous material, such as low density cellulose acetate tow.

[0195] The airflow channel may be partially or completely empty.

[0196] The airflow channel may be a hollow cavity.

[0197] The aerosol-generating article may comprise a hollow cavity extending along the longitudinal direction of the aerosol-generating article.

[0198] The hollow cavity may extend from a distal end of the plurality of portions of aerosol-generating substrate towards the proximal end of the aerosol-generating article.

[0199] The hollow cavity may extend from a distal end of the plurality of portions of aerosol-generating substrate to the proximal end of the aerosol-generating article.

[0200] The hollow cavity may extend from the first barrier towards the proximal end of the aerosol-generating article.

[0201] The hollow cavity may extend from the first barrier to the proximal end of the aerosol-generating article.

[0202] The plurality of portions of aerosol-generating substrate may be located about a perimeter of the hollow cavity.

[0203] The one or more separators may be located about a perimeter of the hollow cavity.

[0204] The plurality of portions of aerosol-generating substrate and the one or more separators may be located about a perimeter of the hollow cavity.

[0205] Where each of the plurality of portions of aerosol-generating substrate has a substantially annular transverse cross-section, the plurality of portions of aerosol-generating substrate may circumscribe the hollow cavity.

[0206] The hollow cavity may be defined by internal annular surfaces of the plurality of portions of aerosol-generating substrate.

[0207] Where each of the one or more separators has a substantially annular transverse cross-section, the one or more separators may circumscribe the hollow cavity.

[0208] The hollow cavity may be defined by internal annular surfaces of the one or more separators.

[0209] Where the second barrier has a substantially annular transverse cross-section, the second barrier may circumscribe the hollow cavity. The hollow cavity may be defined by an internal annular surface of the second barrier.

[0210] The hollow cavity may have any desired shape.

[0211] The hollow cavity may be substantially cylindrical.

[0212] The hollow cavity may have any desired width.

[0213] The width of the hollow cavity may be selected based on a desired resistance to draw of the aerosol-generating article.

[0214] The hollow cavity may have a width of at least about 2 millimetres, or at least about 3 millimetres.

[0215] The hollow cavity may have a width of up to about 9 millimetres, up to about 7 millimetres, or up to about 5 millimetres.

[0216] The hollow cavity may have a width of between about 2 millimetres and about 9 millimetres, between about 2 millimetres and about 7 millimetres, or between about 2 millimetres and about 5 millimetres.

[0217] The hollow cavity may have a width of between about 3 millimetres and about 9 millimetres, between about 3 millimetres and about 7.5 millimetres, or between about 3 millimetres and about 5 millimetres.

[0218] Where the plurality of portions of aerosol-generating substrate are located about a perimeter of the hollow cavity, a ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate may be at least about 0.2, at least about 0.3 or at least about 0.4.

[0219] A ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate may be up to about 0.9, up to about 0.8, or up to about 0.7.

[0220] A ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate may be between about 0.2 and about 0.9, between about 0.2 and about 0.8, or between about 0.2 and about 0.7.

[0221] A ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate may be between about 0.3 and about 0.9, between about 0.3 and about 0.8, or between about 0.3 and about 0.7.

[0222] A ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate may be between about 0.4 and about 0.9, between about 0.4 and about 0.8, or between about 0.4 and about 0.7.

[0223] The hollow cavity may have any desired transverse cross-section.

[0224] The hollow cavity may have a substantially circular transverse cross-section.

[0225] Where the hollow cavity has a substantially circular transverse cross-section, the width of the hollow cavity corresponds to a diameter of the hollow cavity.

[0226] The aerosol-generating article may comprise a hollow tubular element extending along a longitudinal direction of the aerosol-generating article. The hollow cavity may be defined by an internal surface of the hollow tubular element.

[0227] The hollow tubular element may comprise an air-permeable wall.

[0228] The air-permeable wall of the hollow tubular element may circumscribe the hollow cavity.

[0229] The plurality of portions of aerosol-generating substrate comprise aerosol-generating material.

[0230] The plurality of portions of aerosol-generating substrate may comprise any suitable amount of aerosol-generating material.

[0231] The total amount of aerosol-generating material in the plurality of portions of aerosol-generating substrate may be selected based on a desired total number of puffs of aerosol to be generated for delivery to a user during use of the aerosol-generating article.

[0232] The amount of aerosol-generating material in each of the plurality of portions of aerosol-generating substrate may be selected based on a desired number of puffs of aerosol to be generated upon heating of each of the plurality of portions of aerosol-generating substrate.

[0233] Each of the plurality of portions of aerosol-generating substrate may be configured to generate the same number of puffs of aerosol upon heating thereof.

[0234] Each of the plurality of portions of aerosol-generating substrate may be configured to generate a single puff of aerosol upon heating thereof.

[0235] Each of the plurality of portions of aerosol-generating substrate may be configured to generate a plurality of puffs of aerosol upon heating thereof.

[0236] For example, each of the plurality of portions of aerosol-generating substrate may be configured to generate between 2 puffs and 10 puffs of aerosol upon heating thereof.

[0237] For example, each of the plurality of portions of aerosol-generating substrate may be configured to generate between 4 puffs and 8 puffs of aerosol upon heating thereof.

[0238] For example, each of the plurality of portions of aerosol-generating substrate may be configured to generate 5 puffs of aerosol upon heating thereof.

[0239] The plurality of portions of aerosol-generating substrate may comprise an air-permeable wrapper circumscribing the aerosol-generating material.

[0240] The aerosol-generating material of each of the plurality of portions of aerosol-generating substrate may have the same physical form. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise aerosol-generating material having a different physical form from one another. The aerosol-generating material of each of the plurality of portions of aerosol-generating substrate may have a different physical form.

[0241] The aerosol-generating material may be a solid aerosol-generating material. At least one of the plurality of portions of aerosol-generating substrate may comprise a solid aerosol-generating material. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise a solid aerosol-generating material. Each of the plurality of portions of aerosol-generating substrate may comprise a solid aerosol-generating material.

[0242] The aerosol-generating material may be a liquid aerosol-generating material. At least one of the plurality of portions of aerosol-generating substrate may comprise a liquid aerosol-generating material. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise a liquid aerosol-generating material. Each of the plurality of portions of aerosol-generating substrate may comprise a liquid aerosol-generating material.

[0243] The aerosol-generating material may be a gel aerosol-generating material. At least one of the plurality of portions of aerosol-generating substrate may comprise a gel aerosol-generating material. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise a gel aerosol-generating material. Each of the plurality of portions of aerosol-generating substrate may comprise a gel aerosol-generating material.

[0244] As used herein with reference to the invention, the term "gel" is used to describe a substantially dilute cross-linked system, which exhibits no flow in the steady state.

[0245] Where the aerosol-generating material is a liquid aerosol-generating material or a gel aerosol-generating material, the portion of aerosol-generating substrate may comprise a solid support element for the aerosol-generating material. For example, the portion of aerosol-generating substrate may comprise a porous solid support element loaded with the aerosol-generating material.

[0246] Each of the plurality of portions of aerosol-generating substrate may have the same composition. This may enable the aerosol-generating article to have a substantially consistent delivery performance. In particular, this may enable the aerosol-generating article to have a substantially consistent delivery performance both before and after an interruption in use of the aerosol-generating article by a user. This may particularly be the case when a different portion of aerosol-generating substrate is heated between different inhalation sessions.

[0247] The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate having a different composition from one another. Each of the plurality of portions of aerosol-generating substrate may have a different composition. This may provide a user with a wide range of flavours and experiences. During use, a user may be able to select which portion or combination of portions of aerosol-generating substrate is heated in order to provide a desired flavour and experience.

[0248] At least one of the plurality of portions of aerosol-generating substrate may comprise aerosol-generating material comprising nicotine. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise aerosol-generating material comprising nicotine. Each of the plurality of portions of aerosol-generating substrate may comprise aerosol-generating material comprising nicotine.

[0249] As used herein with reference to the invention, the term "nicotine" refers to nicotine and nicotine derivatives such as free-base nicotine, nicotine salts and the like.

[0250] At least one of the plurality of portions of aerosol-generating substrate may not comprise nicotine. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that do not comprise nicotine. Each of the plurality of portions of aerosol-generating substrate may not comprise nicotine.

[0251] The aerosol-generating material may comprise a cannabinoid. At least one of the plurality of portions of aerosol-generating substrate may comprise aerosol-generating material comprising a cannabinoid. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise aerosol-generating material comprising a cannabinoid. Each of the plurality of portions of aerosol-generating substrate may comprise aerosol-generating material comprising a cannabinoid.

[0252] Suitable cannabinoids include, but are not limited to, cannabidiol (CBD) and tetrahydrocannabinol (THC).

[0253] The aerosol-generating material may be plant material. At least one of the plurality of portions of aerosol-generating substrate may comprise plant material. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise plant material. Each of the plurality of portions of aerosol-generating substrate may comprise plant material.

[0254] The plant material may be tobacco material. At least one of the plurality of portions of aerosol-generating substrate may comprise tobacco material. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that com-

prise tobacco material. Each of the plurality of portions of aerosol-generating substrate may comprise tobacco material.

[0255] Suitable forms of tobacco material include, but are not limited to, tobacco cut filler, reconstituted tobacco, cast leaf tobacco, foamed open cell tobacco, and expanded tobacco.

[0256] The plant material may be non-tobacco plant material. At least one of the plurality of portions of aerosol-generating substrate may comprise non-tobacco plant material. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise non-tobacco plant material. Each of the plurality of portions of aerosol-generating substrate may comprise non-tobacco plant material.

[0257] The plant material may be cannabis material. At least one of the plurality of portions of aerosol-generating substrate may comprise cannabis material. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise cannabis material. Each of the plurality of portions of aerosol-generating substrate may comprise cannabis material.

[0258] Other suitable non-tobacco plant materials include, but are not limited to, ginger material, eucalyptus material, clove material and star anise material.

[0259] At least one of the plurality of portions of aerosol-generating substrate may comprise both tobacco material and non-tobacco plant material. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise both tobacco material and non-tobacco plant material. Each of the plurality of portions of aerosol-generating substrate may comprise both tobacco material and non-tobacco plant material.

[0260] The plant material may be a homogenised plant material.

[0261] As used herein with reference to the invention, the term "homogenised plant material" is used to describe a material formed by agglomerating particulate plant material.

[0262] The homogenised plant material may, for example, be in the form of powder, granules, pellets, shreds, strands, sheets or any combination thereof.

[0263] As used herein with reference to the invention, the term "strand" describes an elongate element of material having a length that is substantially greater than a width and a thickness thereof.

[0264] As used herein with reference to the invention, the term "sheet" denotes a laminar element having a width and a length substantially greater than a thickness thereof.

[0265] The homogenised plant material may comprise a binder.

[0266] At least one of the plurality of portions of aerosol-generating substrate may not comprise tobacco material. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that do not comprise tobacco material. Each of the plurality of portions of aerosol-generating substrate may not comprise tobacco material.

[0267] The aerosol-generating material may comprise one or more aerosol formers. At least one of the plurality of portions of aerosol-generating substrate may comprise aerosol-generating material comprising one or more aerosol formers. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise aerosol-generating material comprising one or more aerosol formers. Each of the plurality of portions of aerosol-generating substrate may comprise aerosol-generating material comprising one or more aerosol formers.

[0268] Suitable aerosol formers for inclusion in the aerosol-generating substrate are known in the art and include, but are not limited to: polyhydric alcohols, such as triethylene glycol, propylene glycol, 1,3-butanediol and glycerol; esters of polyhydric alcohols, such as glycerol mono-, di- or triacetate; and aliphatic esters of mono-, di- or polycarboxylic acids, such as dimethyl dodecanedioate and dimethyl tetradecanedioate.

[0269] The aerosol former may act as a humectant.

[0270] At least one of the plurality of portions of aerosol-generating substrate may comprise a porous element loaded with the aerosol-generating material. The plurality of portions of aerosol-generating substrate may comprise at least two portions of aerosol-generating substrate that comprise a porous element loaded with aerosol-generating material. Each of the plurality of portions of aerosol-generating substrate may comprise a porous element loaded with the aerosol-generating material.

[0271] As used herein with reference to the invention, the term "porous element" describes a material that provides a plurality of pores or openings that allow the passage of air through the material. The porous element may be any suitable porous material able to hold or retain an aerosol-generating material, particularly if these are provided in liquid or gel form.

[0272] The porous element may comprise natural materials, synthetic, or semi-synthetic, or a combination thereof. The porous element may comprise sheet material, foam, or fibres, for example loose fibres, or a combination thereof. The porous substrate may comprise a woven, non-woven, or extruded material, or combinations thereof. For example, the porous substrate may comprise cotton, paper, polylactic acid (PLA), glass fibres, Kevlar, or cellulose acetate, or a combination thereof. The porous substrate may comprise a gathered sheet material, for example, made of cotton or cellulose acetate. The porous substrate may comprise a cellulosic-based material.

[0273] Where the aerosol-generating material is in the form of a gel, the gel may comprise at least one gelling agent. As used herein with reference to the invention, the term "gelling agent" refers to a compound that homogeneously, when added to a 50 percent by weight water/50 percent by weight glycerol mixture, in an amount of about 0.3 percent by weight, forms a solid medium or support matrix leading to a gel. Suitable gelling agents include, but are not limited to, hydrogen-bond crosslinking gelling agents, and ionic crosslinking gelling agents. The gelling agent may include one or more biopolymers. The biopolymers may be formed of polysaccharides. Suitable biopolymers include, but are not limited to, gellan gums (native, low acyl gellan gum, high acyl gellan gums with low acyl gellan gum being preferred), xanthan gum, alginates (alginic acid), agar, guar gum, and the like.

[0274] The aerosol-generating material may comprise a flavourant. At least one of the plurality of portions of aerosol-generating substrate may comprise aerosol-generating material comprising a flavourant. The plurality of portions of aerosol-generating substrate may comprise at least

two portions of aerosol-generating substrate that comprise aerosol-generating material comprising a flavourant. Each of the plurality of portions of aerosol-generating substrate may comprise aerosol-generating material comprising a flavourant.

[0275] Suitable flavourants include, but are not limited to: menthol; mint, such as peppermint and spearmint; chocolate; liquorice; citrus and other fruit flavours; gamma octalactone; vanillin; ethyl vanillin; breath freshener flavours; spice flavours such as cinnamon; methyl salicylate; linalool; bergamot oil; geranium oil; lemon oil; ginger oil; and tobacco flavour.

[0276] The aerosol-generating article may comprise a mouthpiece located between the plurality of portions of aerosol-generating substrate and the proximal end of the aerosol-generating article. The mouthpiece may be described as being downstream of the plurality of portions of aerosol-generating substrate. That is, the aerosol-generating article may comprise a mouthpiece located downstream of the plurality of portions of aerosol-generating substrate.

[0277] Where the aerosol-generating article comprises a second barrier, the mouthpiece may be located between the second barrier and the proximal end of the aerosol-generating article. The mouthpiece may be described as being downstream of the second barrier. That is, the aerosol-generating article may comprise a second barrier located downstream of the plurality of portions of aerosol-generating substrate and a mouthpiece located downstream of the second barrier.

[0278] The mouthpiece may be located at the proximal end of the aerosol-generating article.

[0279] The mouthpiece may comprise one or more filter segments. For example, the mouthpiece element may comprise one or more filter segments formed of fibrous filtration material. The mouthpiece may comprise one or more filter segments formed of cellulose acetate filtration material.

[0280] The mouthpiece may not comprise a filter segment. The mouthpiece may not comprise a filter segment of fibrous filtration material. The mouthpiece may not comprise a filter segment formed of cellulose acetate filtration material.

[0281] Where present, the mouthpiece preferably has a length of less than or equal to about 12 millimetres, less than or equal to 10 millimetres, less than or equal to 8 millimetres, or less than or equal to about 6 millimetres.

[0282] The aerosol-generating article may not comprise a mouthpiece.

[0283] The plurality of portions of aerosol-generating substrate, the first barrier, and the one or more separators may be assembled within an air-permeable wrapper to form the aerosol-generating article.

[0284] Where the aerosol-generating article comprises one or more other components, the plurality of portions of aerosol-generating substrate, the first barrier, the one or more separators and the one or more other components may be assembled within an air-permeable wrapper to form the aerosol-generating article. For example, where the aerosol-generating article comprises a second barrier, the plurality of portions of aerosol-generating substrate, the first barrier, the one or more separators, and the second barrier may be assembled within an air-permeable wrapper to form the aerosol-generating article.

[0285] Suitable air-permeable wrappers are known in the art and include, but are not limited to: cigarette papers; filter plug wraps; and tipping papers.

[0286] The aerosol-generating article may have any desired shape.

[0287] The aerosol-generating article may be substantially cylindrical.

[0288] The aerosol-generating article may have any desired length.

[0289] The aerosol-generating article may have a length of at least about 15 millimetres, at least about 20 millimetres, or at least about 25 millimetres.

[0290] The aerosol-generating article may have a length of up to about 45 millimetres, up to at least about 40 millimetres, or up to about 35 millimetres.

[0291] The aerosol-generating article may have a length of between about 15 millimetres and about 45 millimetres, between about 15 millimetres and about 40 millimetres, or between about 15 millimetres and about 35 millimetres.

[0292] The aerosol-generating article may have a length of between about 20 millimetres and about 45 millimetres, between about 20 millimetres and about 40 millimetres, or between about 20 millimetres and about 35 millimetres.

[0293] The aerosol-generating article may have a length of between about 25 millimetres and about 45 millimetres, between about 25 millimetres and about 40 millimetres, or between about 25 millimetres and about 35 millimetres.

[0294] The aerosol-generating article may have a length of about 28 millimetres.

[0295] The aerosol-generating article may have any desired width.

[0296] The aerosol-generating article may have a width of at least about 5 millimetres, or at least about 6 millimetres.

[0297] The aerosol-generating article may have a width of up to about 12 millimetres, up to about 10 millimetres, or up to about 8 millimetres.

[0298] The aerosol-generating article may have a width of between about 5 millimetres and about 12 millimetres, between about 5 millimetres and about 10 millimetres, or between about 5 millimetres and about 8 millimetres.

[0299] The aerosol-generating article may have a width of between about 6 millimetres and about 12 millimetres, or between about 6 millimetres and about 10 millimetres, or between about 6 millimetres and about 8 millimetres.

[0300] The aerosol-generating article may have a substantially circular transverse cross-section.

[0301] Where the aerosol-generating article has a substantially circular transverse cross-section, the width of the aerosol-generating article corresponds to a diameter of the aerosol-generating article.

[0302] Preferably, the resistance to draw (RTD) of the aerosol-generating article is less than or equal to about 50 mm H_2O as measured in accordance with ISO 6565-2015 at a volumetric flow rate of about 17.5 millilitres per second at the proximal end of the aerosol-generating article at a temperature of about 22 degrees Celsius, a pressure of about 101 kPa (about 760 Torr) and a relative humidity of about 60%.

[0303] For example, the resistance to draw (RTD) of the aerosol-generating article may be less than or equal to about 25 mm H_2O, less than or equal to about 15 mm H_2O, less than or equal to about 10 mm H_2O, or less than or equal to about 5 mm H_2O.

[0304] According to the second aspect of the invention there is provided an aerosol-generating system comprising: an aerosol-generating article according to the first aspect of the invention; and an aerosol-generating device configured

to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article.

[0305] The aerosol-generating device may comprise a housing defining a device cavity configured to receive the aerosol-generating article.

[0306] The aerosol-generating device may be a handheld aerosol-generating device.

[0307] The aerosol-generating device may be an electrically-operated aerosol-generating device.

[0308] The aerosol-generating device may comprise a power supply and control electronics.

[0309] The aerosol-generating device may comprise a battery and control electronics.

[0310] The aerosol-generating device may be configured to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article simultaneously.

[0311] The aerosol-generating device may be configured to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article sequentially.

[0312] The aerosol-generating device may be configured to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article to the same temperature.

[0313] The aerosol-generating device may be configured to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article to different temperatures.

[0314] The aerosol-generating device may be configured to externally heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article. That is, the aerosol-generating device may be configured to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article from an exterior of the plurality of portions of aerosol-generating substrate of the aerosol-generating article.

[0315] The aerosol-generating article may comprise a plurality of heating elements.

[0316] The aerosol-generating article may comprise a plurality of external heating elements.

[0317] The plurality of heating elements of the aerosol-generating device may be located about a perimeter of the device cavity.

[0318] Each of the plurality of heating elements may be configured to heat a different one of the plurality of portions of aerosol-generating substrate of the aerosol-generating article.

[0319] Each of the plurality of heating elements may be configured to be activated independently of each other.

[0320] The plurality of heating elements may comprise one or more resistive heating elements, one or more inductive heating elements, or a combination thereof.

[0321] The aerosol-generating device may comprise a mouthpiece.

[0322] Below, there is provided a non-exhaustive list of non-limiting examples. Any one or more of the features of these examples may be combined with any one or more features of another example, or embodiment, or aspect described herein.

[0323] EX1: An aerosol-generating article having a proximal end and a distal end, the aerosol-generating article comprising: a plurality of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article; a first barrier located between the plurality of portions of aerosol-generating substrate and the distal end of the aerosol-generating article; and one or more separators, wherein the plurality of portions of aerosol-generating substrate comprise two portions of aerosol-generating substrate that are separated from one another by at least one of the one or more separators, and wherein the first barrier and the one or more separators are substantially air-impermeable.

[0324] EX2: An aerosol-generating article according to EX1 wherein the plurality of portions of aerosol-generating substrate comprise three or more portions of aerosol-generating substrate.

[0325] EX3: An aerosol-generating article according to EX1 or EX2 wherein the plurality of portions of aerosol-generating substrate comprise four or more portions of aerosol-generating substrate.

[0326] EX4: An aerosol-generating article according to any one of EX1 to EX3 wherein the plurality of portions of aerosol-generating substrate comprise up to ten portions of aerosol-generating substrate.

[0327] EX5: An aerosol-generating article according to any one of EX1 to EX4 wherein the plurality of portions of aerosol-generating substrate comprise up to eight portions of aerosol-generating substrate.

[0328] EX6: An aerosol-generating article according to any one of EX1 to EX5 wherein the plurality of portions of aerosol-generating substrate comprise up to six portions of aerosol-generating substrate.

[0329] EX7: An aerosol-generating article according to any one of EX1 to EX6 wherein the plurality of portions of aerosol-generating substrate comprise five portions of aerosol-generating substrate.

[0330] EX8: An aerosol-generating article according to any one of EX1 to EX7 wherein each of the plurality of portions of aerosol-generating substrate has substantially the same length.

[0331] EX9: An aerosol-generating article according to any one of EX1 to EX8 wherein each of the plurality of portions of aerosol-generating substrate has a length of at least about 3 millimetres.

[0332] EX10: An aerosol-generating article according to any one of EX1 to EX9 wherein each of the plurality of portions of aerosol-generating substrate has a length of at least about 4 millimetres.

[0333] EX11: An aerosol-generating article according to any one of EX1 to EX10 wherein each of the plurality of portions of aerosol-generating substrate has a length of up to about 10 millimetres.

[0334] EX12: An aerosol-generating article according to any one of EX1 to EX11 wherein each of the plurality of portions of aerosol-generating substrate has a length of up to about 8 millimetres.

[0335] EX13: An aerosol-generating article according to any one of EX1 to EX12 wherein each of the plurality of portions of aerosol-generating substrate has a length of up to about 6 millimetres.

[0336] EX14: An aerosol-generating article according to any one of EX1 to EX13 wherein each of the plurality of portions of aerosol-generating substrate has a length of about 5 millimetres.

[0337] EX15: An aerosol-generating article according to any one of EX1 to EX14 wherein each of the plurality of portions of aerosol-generating substrate has substantially the same width.

[0338] EX16: An aerosol-generating article according to any one of EX1 to EX15 wherein each of the plurality of portions of aerosol-generating substrate has a width of at least about 5 millimetres.

[0339] EX17: An aerosol-generating article according to any one of EX1 to EX16 wherein each of the plurality of portions of aerosol-generating substrate has a width of at least about 6 millimetres.

[0340] EX18: An aerosol-generating article according to any one of EX1 to EX17 wherein each of the plurality of portions of aerosol-generating substrate has a width of up to about 12 millimetres.

[0341] EX19: An aerosol-generating article according to any one of EX1 to EX18 wherein each of the plurality of portions of aerosol-generating substrate has a width of up to about 10 millimetres.

[0342] EX20: An aerosol-generating article according to any one of EX1 to EX19 wherein each of the plurality of portions of aerosol-generating substrate has a width of up to about 8 millimetres.

[0343] EX21: An aerosol-generating article according to any one of EX1 to EX20 wherein the plurality of portions of aerosol-generating substrate have a width that is substantially the same as a width of the aerosol-generating article.

[0344] EX22: An aerosol-generating article according to any one of EX1 to EX21 wherein each of the plurality of portions of aerosol-generating substrate has substantially the same shape.

[0345] EX23: An aerosol-generating article according to any one of EX1 to EX22 wherein each of the plurality of portions of aerosol-generating substrate has a substantially annular transverse cross-section.

[0346] EX24: An aerosol-generating article according to EX23 wherein each of the plurality of portions of aerosol-generating substrate has an internal annular diameter of at least about 2 millimetres.

[0347] EX25: An aerosol-generating article according to EX23 or EX24 wherein each of the plurality of portions of aerosol-generating substrate has an internal annular diameter of at least about 3 millimetres.

[0348] EX26: An aerosol-generating article according to any one of EX23 to EX25 wherein each of the plurality of portions of aerosol-generating substrate has an internal annular diameter of up to about 9 millimetres.

[0349] EX27: An aerosol-generating article according to any one of EX23 to EX26 wherein each of the plurality of portions of aerosol-generating substrate has an internal annular diameter of up to about 7 millimetres.

[0350] EX28: An aerosol-generating article according to any one of EX23 to EX27 wherein each of the plurality of portions of aerosol-generating substrate has an internal annular diameter of up to about 5 millimetres.

[0351] EX29: An aerosol-generating article according to any one of EX1 to EX28 wherein each of the plurality of portions of aerosol-generating substrate has substantially the same shape and dimensions.

[0352] EX30: An aerosol-generating article according to any one of EX1 to EX29 comprising two or more separators.

[0353] EX31: An aerosol-generating article according to any one of EX1 to EX30 comprising three or more separators.

[0354] EX32: An aerosol-generating article according to any one of EX1 to EX31 comprising up to nine separators.

[0355] EX33: An aerosol-generating article according to any one of EX1 to EX32 comprising up to seven separators.

[0356] EX34: An aerosol-generating article according to any one of EX1 to EX33 comprising up to five separators.

[0357] EX35: An aerosol-generating article according to any one of EX1 to EX34 comprising four separators.

[0358] EX36: An aerosol-generating article according to any one of EX1 to EX35 wherein the number of separators is the same as the number of portions of aerosol-generating substrate.

[0359] EX37: An aerosol-generating article according to any one of EX1 to EX35 wherein the number of separators is greater than the number of portions of aerosol-generating substrate.

[0360] EX38: An aerosol-generating article according to any one of EX1 to EX35 wherein the number of separators is less than the number of portions of aerosol-generating substrate.

[0361] EX39: An aerosol-generating article according to any one of EX1 to EX35 wherein the plurality of portions of aerosol-generating substrate comprises n portions of aerosol-generating substrate, and wherein the aerosol-generating article comprises n−1 separators.

[0362] EX40: An aerosol-generating article according to any one of EX1 to EX39 wherein the plurality of portions of aerosol-generating substrate comprise two or more portions of aerosol-generating substrate that are not separated from one another by at least one of the one or more separators.

[0363] EX41: An aerosol-generating article according to any one of EX1 to EX39 wherein each of the plurality of portions of aerosol-generating substrate in the series is separated from other portions of aerosol-generating substrate in the series by at least one of the one or more separators.

[0364] EX42: An aerosol-generating article according to any one of EX1 to EX39 and EX41 wherein the plurality of portions of aerosol-generating substrate and the one or more separators are arranged in an alternating series along the longitudinal direction of the aerosol-generating article.

[0365] EX43: An aerosol-generating article according to any one of EX1 to EX42 wherein the one or more separators abut the plurality of portions of aerosol-generating substrate.

[0366] EX44: An aerosol-generating article according to any one of EX1 to EX43 wherein each of the one or more separators abuts at least one of the plurality of portions of aerosol-generating substrate.

[0367] EX45: An aerosol-generating article according to any one of EX1 to EX35 and EX38 to EX44 wherein each of the one or more separators abuts two of the plurality of portions of aerosol-generating substrate.

[0368] EX46: An aerosol-generating article according to any one of EX1 to EX45 wherein the one or more separators is a coating applied to the plurality of portions of aerosol-generating substrate.

[0369] EX47: An aerosol-generating article according to any one of EX1 to EX46 wherein each of the one or more separators is a coating applied to at least one of the plurality of portions of aerosol-generating substrate.

[0370] EX48: An aerosol-generating article according to any one of EX1 to EX35 and EX38 to EX47 wherein each of the one or more separators is a coating applied to two portions of the plurality of portions of aerosol-generating substrate.

[0371] EX49: An aerosol-generating article according to any one of EX1 to EX48 wherein each of the one or more separators has substantially the same length.

[0372] EX50: An aerosol-generating article according to any one of EX1 to EX49 wherein each of the one or more separators has a length of at least about 0.1 millimetres.

[0373] EX51: An aerosol-generating article according to any one of EX1 to EX50 wherein each of the one or more separators has a length of at least about 0.2 millimetres.

[0374] EX52: An aerosol-generating article according to any one of EX1 to EX51 wherein each of the one or more separators has a length of at least about 0.3 millimetres.

[0375] EX53: An aerosol-generating article according to any one of EX1 to EX52 wherein each of the one or more separators has a length of up to about 1 millimetre.

[0376] EX54: An aerosol-generating article according to any one of EX1 to EX53 wherein each of the one or more separators has a length of up to about 0.8 millimetres.

[0377] EX55: An aerosol-generating article according to any one of EX1 to EX54 wherein each of the one or more separators has a length of up to about 0.6 millimetres.

[0378] EX56: An aerosol-generating article according to any one of EX1 to EX55 wherein each of the one or more separators has substantially the same width.

[0379] EX57: An aerosol-generating article according to any one of EX1 to EX56 wherein each of the one or more separators has a width of at least about 5 millimetres.

[0380] EX58: An aerosol-generating article according to any one of EX1 to EX57 wherein each of the one or more separators has a width of at least about 6 millimetres.

[0381] EX59: An aerosol-generating article according to any one of EX1 to EX58 wherein each of the one or more separators has a width of up to about 12 millimetres.

[0382] EX60: An aerosol-generating article according to any one of EX1 to EX59 wherein each of the one or more separators has a width of up to about 10 millimetres.

[0383] EX61: An aerosol-generating article according to any one of EX1 to EX60 wherein each of the one or more separators has a width of up to about 8 millimetres.

[0384] EX62: An aerosol-generating article according to any one of EX1 to EX61 wherein the one or more separators have a width that is substantially the same as a width of the aerosol-generating article.

[0385] EX63: An aerosol-generating article according to any one of EX1 to EX62 wherein each of the one or more separators has substantially the same shape.

[0386] EX64: An aerosol-generating article according to any one of EX1 to EX63 wherein each of the one or more separators has a substantially annular transverse cross-section.

[0387] EX65: An aerosol-generating article according to EX64 wherein each of the one or more separators has an internal annular diameter of at least about 2 millimetres.

[0388] EX66: An aerosol-generating article according to EX64 or EX65 wherein each of the one or more separators has an internal annular diameter of at least about 3 millimetres.

[0389] EX67: An aerosol-generating article according to any one of EX64 to EX66 wherein each of the one or more separators has an internal annular diameter of up to about 9 millimetres.

[0390] EX68: An aerosol-generating article according to any one of EX64 to EX67 wherein each of the one or more separators has an internal annular diameter of up to about 7 millimetres.

[0391] EX69: An aerosol-generating article according to any one of EX64 to EX68 wherein each of the one or more separators has an internal annular diameter of up to about 5 millimetres.

[0392] EX70: An aerosol-generating article according to any one of EX1 to EX69 wherein each of the one or more separators has substantially the same shape and dimensions.

[0393] EX71: An aerosol-generating article according to any one of EX1 to EX70 wherein the one or more separators are air-impermeable.

[0394] EX72: An aerosol-generating article according to any one of EX1 to EX71 wherein the one or more separators are formed from one or more of plastic materials; ceramic materials; impregnated papers, such as papers impregnated with wax and papers impregnated with glycerol; polymer films; metallised films; laminated polymer films; and laminated metallised films.

[0395] EX73: An aerosol-generating article according to any one of EX1 to EX72 wherein the one or more separators are formed from a substantially air-impermeable adhesive.

[0396] EX74: An aerosol-generating article according to any one of EX1 to EX73 wherein the one or more separators are heat-insulative.

[0397] EX75: An aerosol-generating article according to any one of EX1 to EX74 comprising two or more separators, wherein the two or more separators are substantially identical.

[0398] EX76: An aerosol-generating article according to any one of EX1 to EX75 wherein the first barrier is located at a distal end of the plurality of portions of aerosol-generating substrate.

[0399] EX77: An aerosol-generating article according to any one of EX1 to EX76 wherein the first barrier is affixed to a distal end of one of the plurality of portions of aerosol-generating substrate.

[0400] EX78: An aerosol-generating article according to any one of EX1 to EX77 wherein the first barrier is located at a distal end of the aerosol-generating article.

[0401] EX79: An aerosol-generating article according to any one of EX1 to EX78 wherein the first barrier is air-impermeable.

[0402] EX80: An aerosol-generating article according to any one of EX1 to EX79 wherein the first barrier has a length of at least about 0.1 millimetres.

[0403] EX81: An aerosol-generating article according to any one of EX1 to EX80 wherein the first barrier has a length of at least about 0.2 millimetres.

[0404] EX82: An aerosol-generating article according to any one of EX1 to EX81 wherein the first barrier has a length of at least about 0.3 millimetres.

[0405] EX83: An aerosol-generating article according to any one of EX1 to EX82 wherein the first barrier has a length of up to about 1 millimetre.

[0406] EX84: An aerosol-generating article according to any one of EX1 to EX83 wherein the first barrier has a length of up to about 0.8 millimetres.

[0407] EX85: An aerosol-generating article according to any one of EX1 to EX84 wherein the first barrier has a length of up to about 0.6 millimetres.

[0408] EX86: An aerosol-generating article according to any one of EX1 to EX85 wherein the first barrier has a width of at least about 5 millimetres.

[0409] EX87: An aerosol-generating article according to any one of EX1 to EX86 wherein the first barrier has a width of at least about 6 millimetres.

[0410] EX88: An aerosol-generating article according to any one of EX1 to EX87 wherein the first barrier has a width of up to about 12 millimetres.

[0411] EX89: An aerosol-generating article according to any one of EX1 to EX88 wherein the first barrier has a width of up to about 10 millimetres.

[0412] EX90: An aerosol-generating article according to any one of EX1 to EX89 wherein the first barrier has a width of up to about 8 millimetres.

[0413] EX91: An aerosol-generating article according to any one of EX1 to EX90 wherein the first barrier has a width that is substantially the same as a width of the plurality of portions of aerosol-generating substrate.

[0414] EX92: An aerosol-generating article according to any one of EX1 to EX90 wherein the first barrier has a width that is substantially the same as a width of the aerosol-generating article.

[0415] EX93: An aerosol-generating article according to any one of EX1 to EX92 wherein the first barrier has a substantially circular transverse cross-section.

[0416] EX94: An aerosol-generating article according to any one of EX1 to EX93 wherein the first barrier is formed from one or more of plastic materials; ceramic materials; impregnated papers, such as papers impregnated with wax and papers impregnated with glycerol; polymer films; metallised films; laminated polymer films; and laminated metallised films.

[0417] EX95: An aerosol-generating article according to any one of EX1 to EX94 further comprising a second barrier located between the plurality of portions of aerosol-generating substrate and the proximal end of the aerosol-generating article.

[0418] EX96: An aerosol-generating article according to EX95 wherein the second barrier is located at a proximal end of the plurality of portions of aerosol-generating substrate.

[0419] EX97: An aerosol-generating article according to EX95 or EX96 wherein the second barrier is affixed to a proximal end of one of the plurality of portions of aerosol-generating substrate.

[0420] EX98: An aerosol-generating article according to any one of EX95 to EX97 wherein the second barrier is a coating applied to one of the plurality of portions of aerosol-generating substrate.

[0421] EX99: An aerosol-generating article according to any one of EX95 to EX98 wherein the second barrier is located at the proximal end of the aerosol-generating article.

[0422] EX100: An aerosol-generating article according to any one of EX95 to EX99 wherein the second barrier is substantially air-impermeable.

[0423] EX101: An aerosol-generating article according to any one of EX95 to EX100 wherein the second barrier is air-impermeable.

[0424] EX102: An aerosol-generating article according to any one of EX95 to EX101 wherein the second barrier has a length of at least about 0.1 millimetres.

[0425] EX103: An aerosol-generating article according to any one of EX95 to EX102 wherein the second barrier has a length of at least about 0.2 millimetres.

[0426] EX104: An aerosol-generating article according to any one of EX95 to EX103 wherein the second barrier has a length of at least about 0.3 millimetres.

[0427] EX105: An aerosol-generating article according to any one of EX95 to EX104 wherein the second barrier has a length of up to about 1 millimetre

[0428] EX106: An aerosol-generating article according to any one of EX95 to EX105 wherein the second barrier has a length of up to about 0.8 millimetres

[0429] EX107: An aerosol-generating article according to any one of EX95 to EX106 wherein the second barrier has a length of up to about 0.6 millimetres.

[0430] EX108: An aerosol-generating article according to any one of EX95 to EX107 wherein the second barrier has a width of at least about 5 millimetres.

[0431] EX109: An aerosol-generating article according to any one of EX95 to EX108 wherein the second barrier has a width of at least about 6 millimetres.

[0432] EX110: An aerosol-generating article according to any one of EX95 to EX109 wherein the second barrier has a width of up to about 12 millimetres.

[0433] EX111: An aerosol-generating article according to any one of EX95 to EX110 wherein the second barrier has a width of up to about 10 millimetres.

[0434] EX112: An aerosol-generating article according to any one of EX95 to EX111 wherein the second barrier has a width of up to about 8 millimetres.

[0435] EX113: An aerosol-generating article according to any one of EX95 to EX112 wherein the second barrier has a width that is substantially the same as a width of the aerosol-generating article.

[0436] EX114: An aerosol-generating article according to any one of EX95 to EX113 wherein the second barrier has a substantially annular transverse cross-section.

[0437] EX115: An aerosol-generating article according to EX114 wherein the second barrier has an internal annular diameter of at least about 2 millimetres.

[0438] EX116: An aerosol-generating article according to EX114 or EX115 wherein the second barrier has an internal annular diameter of at least about 3 millimetres.

[0439] EX117: An aerosol-generating article according to any one of EX114 to EX116 wherein the second barrier has an internal annular diameter of up to about 9 millimetres.

[0440] EX118: An aerosol-generating article according to any one of EX114 to EX117 wherein the second barrier has an internal annular diameter of up to about 7 millimetres.

[0441] EX119: An aerosol-generating article according to any one of EX114 to EX118 wherein the second barrier has an internal annular diameter of up to about 5 millimetres.

[0442] EX120: An aerosol-generating article according to any one of EX114 to EX119 wherein the second barrier is formed from one or more of plastic materials; ceramic materials; impregnated papers, such as papers impregnated with wax and papers impregnated with glycerol; polymer films; metallised films; laminated polymer films; and laminated metallised films.

[0443] EX121: An aerosol-generating article according to any one of EX114 to EX120 wherein the second barrier is formed from a substantially air-impermeable adhesive.

[0444] EX122: An aerosol-generating article according to any one of EX114 to EX121 wherein the second barrier is substantially identical to the one or more separators.

[0445] EX123: An aerosol-generating article according to any one of EX1 to EX122 further comprising a hollow cavity extending along the longitudinal direction of the aerosol-generating article.

[0446] EX124: An aerosol-generating article according to EX123 wherein the hollow cavity extends from a distal end of the plurality of portions of aerosol-generating substrate towards the proximal end of the aerosol-generating article.

[0447] EX125: An aerosol-generating article according to EX123 or EX124 wherein the hollow cavity extends from a distal end of the plurality of portions of aerosol-generating substrate to the proximal end of the aerosol-generating article.

[0448] EX126: An aerosol-generating article according to anyone of EX123 to EX125 wherein the hollow cavity extends from the first barrier towards the proximal end of the aerosol-generating article.

[0449] EX127: An aerosol-generating article according to anyone of EX123 to EX126 wherein the hollow cavity extends from the first barrier to the proximal end of the aerosol-generating article.

[0450] EX128: An aerosol-generating article according to anyone of EX123 to EX127 wherein the plurality of portions of aerosol-generating substrate are located about a perimeter of the hollow cavity.

[0451] EX129: An aerosol-generating article according to anyone of EX123 to EX128 wherein the one or more separators are located about a perimeter of the hollow cavity.

[0452] EX130: An aerosol-generating article according to anyone of EX123 to EX129 wherein each of the plurality of portions of aerosol-generating substrate has a substantially annular transverse cross-section, and wherein the plurality of portions of aerosol-generating substrate circumscribe the hollow cavity.

[0453] EX131: An aerosol-generating article according to EX130 wherein the hollow cavity is defined by inner annular surfaces of the plurality of portions of aerosol-generating substrate.

[0454] EX132: An aerosol-generating article according to any one of EX123 to EX131 wherein each of the one or more separators has a substantially annular transverse cross-section, and wherein the one or more separators circumscribe the hollow cavity.

[0455] EX133: An aerosol-generating article according to EX132 wherein the hollow cavity is defined by inner annular surfaces of the one or more separators.

[0456] EX134: An aerosol-generating article according to any one of EX123 to EX133 wherein the second barrier has a substantially annular transverse cross-section, and wherein the second barrier circumscribes the hollow cavity.

[0457] EX135: An aerosol-generating article according to EX134 wherein the hollow cavity is defined by an internal annular surface of the second barrier.

[0458] EX136: An aerosol-generating article according to any one of EX123 to EX135 wherein the hollow cavity is substantially cylindrical.

[0459] EX137: An aerosol-generating article according to any one of EX123 to EX136 wherein the hollow cavity has a width of at least about 2 millimetres.

[0460] EX138: An aerosol-generating article according to any one of EX123 to EX137 wherein the hollow cavity has a width of at least about 3 millimetres.

[0461] EX139: An aerosol-generating article according to any one of EX123 to EX138 wherein the hollow cavity has a width of up to about 9 millimetres.

[0462] EX140: An aerosol-generating article according to any one of EX123 to EX139 wherein the hollow cavity has a width of up to about 7 millimetres.

[0463] EX141: An aerosol-generating article according to any one of EX123 to EX140 wherein the hollow cavity has a width of up to about 5 millimetres.

[0464] EX142: An aerosol-generating article according to any one of EX123 to EX141 wherein the plurality of portions of aerosol-generating substrate are located about a perimeter of the hollow cavity, and wherein a ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate is at least about 0.2.

[0465] EX143: An aerosol-generating article according to any one of EX123 to EX142 wherein the plurality of portions of aerosol-generating substrate are located about a perimeter of the hollow cavity, and wherein a ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate is at least about 0.3.

[0466] EX144: An aerosol-generating article according to any one of EX123 to EX143 wherein the plurality of portions of aerosol-generating substrate are located about a perimeter of the hollow cavity, and wherein a ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate is at least about 0.4.

[0467] EX145: An aerosol-generating article according to any one of EX123 to EX144 wherein the plurality of portions of aerosol-generating substrate are located about a perimeter of the hollow cavity, and wherein a ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate is up to about 0.9.

[0468] EX146: An aerosol-generating article according to any one of EX123 to EX145 wherein the plurality of portions of aerosol-generating substrate are located about a perimeter of the hollow cavity, and wherein a ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate is up to about 0.8.

[0469] EX147: An aerosol-generating article according to any one of EX123 to EX146 wherein the plurality of portions of aerosol-generating substrate are located about a perimeter of the hollow cavity, and wherein a ratio of a width of the hollow cavity to a width of the plurality of portions of aerosol-generating substrate is up to about 0.7.

[0470] EX148: An aerosol-generating article according to any one of EX123 to EX147 wherein the hollow cavity has a substantially circular transverse cross-section.

[0471] EX149: An aerosol-generating article according to any one of EX123 to EX148 further comprising a hollow tubular element extending along a longitudinal direction of the aerosol-generating article.

[0472] EX150: An aerosol-generating article according to EX149 wherein the hollow cavity is defined by an internal surface of the hollow tubular element.

[0473] EX151: An aerosol-generating article according to EX149 or EX150 wherein the hollow tubular element comprises an air-permeable wall circumscribing the hollow cavity.

[0474] EX152: An aerosol-generating article according to any one of EX1 to EX151 wherein each of the plurality of portions of aerosol-generating substrate is configured to generate the same number of puffs of aerosol upon heating thereof.

[0475] EX153: An aerosol-generating article according to any one of EX1 to EX152 wherein each of the plurality of portions of aerosol-generating substrate is configured to generate a single puff of aerosol upon heating thereof.

[0476] EX154: An aerosol-generating article according to any one of EX1 to EX152 wherein each of the plurality of portions of aerosol-generating substrate is configured to generate a plurality of puffs of aerosol upon heating thereof.

[0477] EX155: An aerosol-generating article according to any one of EX1 to EX154 wherein the plurality of portions of aerosol-generating substrate comprise aerosol-generating material and an air-permeable wrapper circumscribing the aerosol-generating material.

[0478] EX156: An aerosol-generating article according to any one of EX1 to EX155 wherein each of the plurality of portions of aerosol-generating substrate comprises aerosol-generating material having the same physical form.

[0479] EX157: An aerosol-generating article according to any one of EX1 to EX155 wherein the plurality of portions of aerosol-generating substrate comprise at least two portions of aerosol-generating substrate that comprise aerosol-generating material having a different physical form from one another.

[0480] EX158: An aerosol-generating article according to any one of EX1 to EX155 and EX157 wherein each of the plurality of portions of aerosol-generating substrate comprises aerosol-generating material having a different physical form.

[0481] EX159: An aerosol-generating article according to any one of EX1 to EX156 wherein each of the plurality of portions of aerosol-generating substrate has the same composition.

[0482] EX160: An aerosol-generating article according to any one of EX1 to EX158 wherein the plurality of portions of aerosol-generating substrate comprise at least two portions of aerosol-generating substrate having a different composition from one another.

[0483] EX161: An aerosol-generating article according to any one of EX1 to EX160 wherein at least one of the plurality of portions of aerosol-generating substrate comprises aerosol-generating material comprising nicotine.

[0484] EX162: An aerosol-generating article according to any one of EX1 to EX158 and EX160 to EX161 wherein at least one of the plurality of portions of aerosol-generating substrate does not comprise nicotine.

[0485] EX163: An aerosol-generating article according to any one of EX1 to EX162 wherein at least one of the plurality of portions of aerosol-generating substrate comprises aerosol-generating material comprising plant material.

[0486] EX164: An aerosol-generating article according to any one of EX1 to EX163 wherein at least one of the plurality of portions of aerosol-generating substrate comprises aerosol-generating material comprising tobacco material.

[0487] EX165: An aerosol-generating article according to any one of EX1 to EX164 wherein at least one of the plurality of portions of aerosol-generating substrate comprises aerosol-generating material comprising non-tobacco plant material.

[0488] EX166: An aerosol-generating article according to any one of EX1 to EX165 wherein at least one of the plurality of portions of aerosol-generating substrate does not comprise tobacco material.

[0489] EX167: An aerosol-generating article according to any one of EX1 to EX166 wherein at least one of the plurality of portions of aerosol-generating substrate comprise aerosol-generating material comprising one or more aerosol formers.

[0490] EX168: An aerosol-generating article according to any one of EX1 to EX167 wherein at least one of the plurality of portions of aerosol-generating substrate comprise aerosol-generating material and a porous element loaded with the aerosol-generating material.

[0491] EX169: An aerosol-generating article according to any one of EX1 to EX168 wherein at least one of the plurality of portions of aerosol-generating substrate comprise aerosol-generating material comprising a flavourant.

[0492] EX170: An aerosol-generating article according to any one of EX1 to EX169 wherein the aerosol-generating article comprises a mouthpiece located between the plurality of portions of aerosol-generating substrate and the proximal end of the aerosol-generating article.

[0493] EX171: An aerosol-generating article according to EX170 wherein the mouthpiece comprises one or more filter segments.

[0494] EX172: An aerosol-generating article according to EX170 or EX171 wherein the mouthpiece comprises one or more filter segments formed of cellulose acetate filtration material.

[0495] EX173: An aerosol-generating article according to any one of EX1 to EX171 wherein the mouthpiece does not comprise a filter segment formed of cellulose acetate filtration material.

[0496] EX174: An aerosol-generating article according to any one of EX1 to EX169 wherein the aerosol-generating article does not comprise a mouthpiece.

[0497] EX175: An aerosol-generating article according to any one of EX1 to EX174 wherein the plurality of portions of aerosol-generating substrate, the first barrier, and the one or more separators are assembled within an air-permeable wrapper to form the aerosol-generating article.

[0498] EX176: An aerosol-generating article according to any one of EX1 to EX175 wherein the plurality of portions of aerosol-generating substrate, the first barrier, the one or more separators and the second barrier are assembled within an air-permeable wrapper to form the aerosol-generating article.

[0499] EX177: An aerosol-generating article according to any one of EX1 to EX176 wherein the aerosol-generating article is substantially cylindrical.

[0500] EX178: An aerosol-generating article according to any one of EX1 to EX177 wherein the aerosol-generating article has a length of at least about 15 millimetres.

[0501] EX179: An aerosol-generating article according to any one of EX1 to EX178 wherein the aerosol-generating article has a length of at least about 20 millimetres.

[0502] EX180: An aerosol-generating article according to any one of EX1 to EX179 wherein the aerosol-generating article has a length of at least about 25 millimetres.

[0503] EX181: An aerosol-generating article according to any one of EX1 to EX180 wherein the aerosol-generating article has a length of up to about 45 millimetres.

[0504] EX182: An aerosol-generating article according to any one of EX1 to EX181 wherein the aerosol-generating article has a length of up to about 40 millimetres.

[0505] EX183: An aerosol-generating article according to any one of EX1 to EX182 wherein the aerosol-generating article has a length of up to about 35 millimetres.

[0506] EX184: An aerosol-generating article according to any one of EX1 to EX183 wherein the aerosol-generating article has a length of about 28 millimetres.

[0507] EX185: An aerosol-generating article according to any one of EX1 to EX184 wherein the aerosol-generating article has a width of at least about 5 millimetres.

[0508] EX186: An aerosol-generating article according to any one of EX1 to EX185 wherein the aerosol-generating article has a width of at least about 6 millimetres.

[0509] EX187: An aerosol-generating article according to any one of EX1 to EX186 wherein the aerosol-generating article has a width of up to about 12 millimetres.

[0510] EX188: An aerosol-generating article according to any one of EX1 to EX187 wherein the aerosol-generating article has a width of up to about 10 millimetres.

[0511] EX189: An aerosol-generating article according to any one of EX1 to EX188 wherein the aerosol-generating article has a width of up to about 8 millimetres.

[0512] EX190: An aerosol-generating article according to any one of EX1 to EX189 wherein the aerosol-generating article has a substantially circular transverse cross-section.

[0513] EX191: An aerosol-generating article according to any one of EX1 to EX190 wherein the aerosol-generating article has an RTD of less than or equal to about 50 mm H_2O.

[0514] EX192: An aerosol-generating article according to any one of EX1 to EX191 wherein the aerosol-generating article has an RTD of less than or equal to about 25 mm H_2O.

[0515] EX193: An aerosol-generating article according to any one of EX1 to EX192 wherein the aerosol-generating article has an RTD of less than or equal to about 15 mm H_2O.

[0516] EX194: An aerosol-generating article according to any one of EX1 to EX193 wherein the aerosol-generating article has an RTD of less than or equal to about 10 mm H_2O.

[0517] EX195: An aerosol-generating article according to any one of EX1 to EX194 wherein the aerosol-generating article has an RTD of less than or equal to about 5 mm H_2O.

[0518] EX196: An aerosol-generating system comprising: an aerosol-generating article according to any one of EX1 to EX195; and an aerosol-generating device configured to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article.

[0519] EX197: An aerosol-generating system according to EX196 wherein the aerosol-generating device comprises a housing defining a device cavity configured to receive the aerosol-generating article.

[0520] EX198: An aerosol-generating system according to EX196 or EX197 wherein the aerosol-generating device is configured to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article sequentially.

[0521] EX199: An aerosol-generating system according to any one of EX196 to EX198 wherein the aerosol-generating device is configured to heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article simultaneously.

[0522] EX200: An aerosol-generating system according to any one of EX196 to EX199 wherein the aerosol-generating device is configured to externally heat the plurality of portions of aerosol-generating substrate of the aerosol-generating article.

[0523] EX201: An aerosol-generating system according to any one of EX196 to EX200 wherein the aerosol-generating device comprises a plurality of heating elements.

[0524] EX202: An aerosol-generating system according to any one of EX196 to EX201 wherein the aerosol-generating device comprises a plurality of external heating elements.

[0525] EX203: An aerosol-generating system according to EX201 or EX202 wherein the plurality of heating elements of the aerosol-generating device are located about a perimeter of the device cavity.

[0526] EX204: An aerosol-generating system according to any one of EX201 to EX203 wherein each of the plurality of heating elements is configured to heat a different one of the plurality of portions of aerosol-generating substrate of the aerosol-generating article.

[0527] EX205: An aerosol-generating system according to any one of EX201 to EX204 wherein each of the plurality of heating elements is configured to be activated independently of each other.

[0528] The invention will be further described, by way of example only, with reference to the accompanying drawings in which:

[0529] FIG. **1** shows a perspective view of an aerosol-generating article in accordance with a first embodiment of the first aspect of the invention;

[0530] FIG. **2** shows an exploded view of the aerosol-generating article shown in FIG. **1**;

[0531] FIG. **3** shows a perspective view of an aerosol-generating article in accordance with a second embodiment of the first aspect of the invention;

[0532] FIG. **4**A shows a schematic side sectional view of an aerosol-generating system in accordance with a first embodiment of the second aspect of the invention comprising the aerosol-generating article of FIG. **3** and an aerosol-generating device during a first inhalation session;

[0533] FIG. **4**B shows a schematic side sectional view of the aerosol-generating system of FIG. **4**A during a second inhalation session; and

[0534] FIG. **5** shows a perspective view of an aerosol-generating article in accordance with a third embodiment of the first aspect of the invention.

[0535] FIGS. **1** and **2** show an aerosol-generating article **100** in accordance with a first embodiment of the first aspect of the invention having a proximal end and a distal end. The aerosol-generating article **100** comprises two portions of aerosol-generating substrate: a first portion of aerosol-generating substrate **110** and a second portion of aerosol-generating substrate **112**. The first portion of aerosol-generating substrate **110** and the second portion of aerosol-generating substrate **112** are arranged in a series along a longitudinal direction of the aerosol-generating article **100**.

[0536] The first portion of aerosol-generating substrate **110** and the second portion of aerosol-generating substrate **112** are substantially identical. That is, the first portion of aerosol-generating substrate **110** and the second portion of aerosol-generating substrate **112** have substantially the same shape, dimensions and composition. Both the first portion of aerosol-generating substrate **110** and the second portion of aerosol-generating substrate **112** have an annular transverse cross-section. Both the first portion of aerosol-generating substrate **110** and the second portion of aerosol-generating substrate **112** comprise tobacco material.

[0537] The first portion of aerosol-generating substrate **110** and the second portion of aerosol-generating substrate

112 are each configured to generate ten puffs of aerosol upon heating thereof. The aerosol-generating article **100** is thereby configured to provide a total of 20 puffs of aerosol to a user.

[0538] The aerosol-generating article **100** comprises a separator **120**. The separator **120** is substantially air-impermeable. The separator **120** has an annular transverse cross-section.

[0539] The first portion of aerosol-generating substrate **110** and the second portion of aerosol-generating substrate **112** are separated from one another by the separator **120**. The separator **120** is located between the first portion of aerosol-generating substrate **110** and the second portion of aerosol-generating substrate **112**. The separator **120** abuts a proximal end of the first portion of aerosol-generating substrate **110** and a distal end of the second portion of aerosol-generating substrate **112**.

[0540] The aerosol-generating article **100** comprises a first barrier **130** located at the distal end of the aerosol-generating article **100**. The first barrier **130** abuts a distal end of the first portion of aerosol-generating substrate **110**. The first barrier **130** has a substantially circular transverse cross-section. The first barrier **130** is substantially air-impermeable. The first barrier **130** substantially prevents air from being drawn into the aerosol-generating article **100** through the distal end of the aerosol-generating article **100**.

[0541] The aerosol-generating article **100** comprises a second barrier **140** located at the proximal end of the aerosol-generating article **100**. The second barrier **140** abuts a proximal end of the second portion of aerosol-generating substrate **112**. The second barrier **140** has an annular transverse cross-section. The second barrier **140** is substantially air-impermeable.

[0542] Internal annular surfaces of the first portion of aerosol-generating substrate **110**, the separator **120**, the second portion of aerosol-generating substrate **112**, and the second barrier **140** define a hollow cavity **150** extending along the longitudinal direction of the aerosol-generating article **100** from the first barrier **130** to the proximal end of the aerosol-generating article **100**.

[0543] During use of the aerosol-generating article **100**, air may be drawn into the aerosol-generating article **100** through an external annular surface of the first portion of aerosol-generating substrate **110**. As the separator **120** and the first barrier **130** are substantially air-impermeable, air entering the aerosol-generating article **100** through the external annular surface of the first portion of aerosol-generating substrate **110** is preferentially drawn in a transverse direction through the first portion of aerosol-generating substrate **110** into the hollow cavity **150**, rather than in a longitudinal direction through the separator **120** into the second portion of aerosol-generating substrate **112** or in a longitudinal direction through the first barrier **130**. Consequently, during use of the aerosol-generating article **100**, aerosol generated upon heating of the first portion of aerosol-generating substrate **110** is not drawn through the second portion of aerosol-generating substrate **112**.

[0544] During use of the aerosol-generating article **100**, air may also be drawn into the aerosol-generating article **100** through an external annular surface of the second portion of aerosol-generating substrate **112**. As the separator **120** and the second barrier **140** are substantially air-impermeable, air entering the aerosol-generating article **100** through the external annular surface of the second portion of aerosol-generating substrate **112** is preferentially drawn in a transverse direction through the second portion of aerosol-generating substrate **112** into the hollow cavity **150**, rather than in a longitudinal direction through the separator **120** into the first portion of aerosol-generating substrate **110** or through the second barrier **140**. Consequently, during use of the aerosol-generating article **100**, aerosol generated upon heating of the second portion of aerosol-generating substrate **112** is not drawn through the first portion of aerosol-generating substrate **110**.

[0545] During use of the aerosol-generating article **100**, one of the first portion of aerosol-generating substrate **110** and the second portion of aerosol-generating substrate **112** may be heated to provide ten puffs of aerosol to a user during a first inhalation session. The user may then interrupt use of the aerosol-generating article **100**. Upon resumption of use of the aerosol-generating article **100** by the user, the other one of the first portion of aerosol-generating substrate **110** and the second portion of aerosol-generating substrate **112** may be heated to provide ten puffs of aerosol to a user during a second inhalation session.

[0546] FIG. **3** shows an aerosol-generating article **200** in accordance with a second embodiment of the first aspect of the invention having a proximal end and a distal end. The aerosol-generating article **200** comprises five portions of aerosol-generating substrate: a first portion of aerosol-generating substrate **210**, a second portion of aerosol-generating substrate **212**, a third portion of aerosol-generating substrate **214**, a fourth portion of aerosol-generating substrate **216**, and a fifth portion of aerosol-generating substrate **218**. The five portions of aerosol-generating substrate are arranged in a series along a longitudinal direction of the aerosol-generating article **200**.

[0547] The first portion of aerosol-generating substrate **210**, the second portion of aerosol-generating substrate **212**, the third portion of aerosol-generating substrate **214**, the fourth portion of aerosol-generating substrate **216**, and the fifth portion of aerosol-generating substrate **218** each have an annular transverse cross-section.

[0548] The first portion of aerosol-generating substrate **210**, the second portion of aerosol-generating substrate **212**, the third portion of aerosol-generating substrate **214**, the fourth portion of aerosol-generating substrate **216**, and the fifth portion of aerosol-generating substrate **218** have substantially the same shape and dimensions.

[0549] The first portion of aerosol-generating substrate **210** comprises a non-tobacco plant material.

[0550] The second portion of aerosol-generating substrate **212**, the third portion of aerosol-generating substrate **214**, and the fourth portion of aerosol-generating substrate **216** have substantially the same composition. The second portion of aerosol-generating substrate **212**, the third portion of aerosol-generating substrate **214**, and the fourth portion of aerosol-generating substrate **216** each comprise tobacco material.

[0551] The fifth portion of aerosol-generating substrate **218** comprises a porous element loaded with a liquid aerosol-generating material. The porous element comprises a cellulosic-based material. The liquid aerosol-generating material comprises nicotine and a flavourant.

[0552] The first portion of aerosol-generating substrate **210**, the second portion of aerosol-generating substrate **212**, the third portion of aerosol-generating substrate **214**, the fourth portion of aerosol-generating substrate **216**, and the

fifth portion of aerosol-generating substrate **218** are each configured to generate five puffs of aerosol upon heating thereof. The aerosol-generating article **100** is thereby configured to provide a total of 25 puffs of aerosol to a user.

[0553] The aerosol-generating article **200** comprises four separators: a first separator **220**, a second separator **222**, a third separator **224**, and a fourth separator **226**. The first separator **220**, the second separator **222**, the third separator **224**, and the fourth separator **226** are substantially identical. That is, the first separator **220**, the second separator **222**, the third separator **224**, and the fourth separator **226** have substantially the same shape, dimensions and composition. The first separator **220**, the second separator **222**, the third separator **224**, and the fourth separator **226** are each substantially air-impermeable. The first separator **220**, the second separator **222**, the third separator **224**, and the fourth separator **226** each have an annular transverse cross-section.

[0554] The five portions of aerosol-generating substrate and the four separators are arranged alternately along the longitudinal direction of the aerosol-generating article. The five portions of aerosol-generating substrate are separated from one another by the four separators.

[0555] The first portion of aerosol-generating substrate **210** and the second portion of aerosol-generating substrate **212** are separated from one another by the first separator **220**. The first separator **220** is located between the first portion of aerosol-generating substrate **210** and the second portion of aerosol-generating substrate **212**. The first separator **220** abuts a proximal end of the first portion of aerosol-generating substrate **210** and a distal end of the second portion of aerosol-generating substrate **212**.

[0556] The second portion of aerosol-generating substrate **212** and the third portion of aerosol-generating substrate **214** are separated from one another by the second separator **222**. The second separator **222** is located between the second portion of aerosol-generating substrate **212** and the third portion of aerosol-generating substrate **214**. The second separator **222** abuts a proximal end of the second portion of aerosol-generating substrate **212** and a distal end of the third portion of aerosol-generating substrate **214**.

[0557] The third portion of aerosol-generating substrate **214** and the fourth portion of aerosol-generating substrate **216** are separated from one another by the third separator **224**. The third separator **224** is located between the third portion of aerosol-generating substrate **214** and the fourth portion of aerosol-generating substrate **216**. The third separator **224** abuts a proximal end of third portion of aerosol-generating substrate **214** and a distal end of the fourth portion of aerosol-generating substrate **216**.

[0558] The fourth portion of aerosol-generating substrate **216** and the fifth portion of aerosol-generating substrate **218** are separated from one another by the fourth separator **226**. The fourth separator **226** is located between the fourth portion of aerosol-generating substrate **216** and the fifth portion of aerosol-generating substrate **218**. The fourth separator **226** abuts a proximal end of the fourth portion of aerosol-generating substrate **216** and a distal end of the fifth portion of aerosol-generating substrate **218**.

[0559] The aerosol-generating article **200** comprises a first barrier **230** located at the distal end of the aerosol-generating article **200**. The first barrier **230** abuts a distal end of the first portion of aerosol-generating substrate **210**. The first barrier **230** has a substantially circular transverse cross-section. The first barrier **230** is substantially air-impermeable. The first barrier **230** substantially prevents air from being drawn into the aerosol-generating article **200** through the distal end of the aerosol-generating article **200**.

[0560] The aerosol-generating article **200** comprises a second barrier **240** located at the proximal end of the aerosol-generating article **200**. The second barrier **240** abuts a proximal end of the fifth portion of aerosol-generating substrate **218**. The second barrier **240** has an annular transverse cross-section. The second barrier **240** is substantially air-impermeable.

[0561] Internal annular surfaces of the first portion of aerosol-generating substrate **210**, the first separator **220**, the second portion of aerosol-generating substrate **212**, the second separator **222**, the third portion of aerosol-generating substrate **214**, the third separator **224**, the fourth portion of aerosol-generating substrate **216**, the fourth separator **226**, the fifth portion of aerosol-generating substrate **218**, and the second barrier **240** define a hollow cavity **250** extending along the longitudinal direction of the aerosol-generating article **200** from the first barrier **230** to the proximal end of the aerosol-generating article **200**.

[0562] FIGS. **4**A and **4**B show an aerosol-generating system in accordance with a first embodiment of the second aspect of the invention comprising the aerosol-generating article **200** in accordance with the second embodiment of the first aspect of the invention shown in FIG. **3** and an aerosol-generating device **300**.

[0563] The aerosol-generating device **300** comprises a housing defining a device cavity configured to receive the aerosol-generating article **200**, a plurality of heating elements **310**, **312**, **314**, **316**, **318** located around a perimeter of the device cavity, and a mouthpiece **320**.

[0564] The aerosol-generating device **300** further comprises a power supply in the form of a battery (not shown), such as a rechargeable lithium ion battery, and control circuitry (not shown). The control circuitry controls the supply of electrical power from the battery to the plurality of heating elements **310**, **312**, **314**, **316**, **318**.

[0565] FIGS. **4**A and **4**B show the aerosol-generating article **200** received in the cavity of the aerosol-generating device **300**.

[0566] The plurality of heating elements comprises five heating elements: a first heating element **310**, a second heating element **312**, a third heating element **314**, a fourth heating element **316**, and a fifth heating element **318**. Each of the five heating elements is configured to heat a different one of the five portions of aerosol-generating substrate of the aerosol-generating article **200**.

[0567] The five heating elements **310**, **312**, **314**, **316**, **318** may be configured to heat the five portions of aerosol-generating substrate **210**, **212**, **214**, **216**, **218** of the aerosol-generating article **200** to the same temperature or to different temperatures.

[0568] As shown in FIGS. **4**A and **4**B the plurality of heating elements are arranged such that when the aerosol-generating article **200** is received in the cavity of the aerosol-generating device **300**, each of the five heating elements circumscribes a periphery of one of the five portions of aerosol-generating substrate of the aerosol-generating article **200**.

[0569] Each of the five heating elements may be activated independently of one another.

[0570] FIG. **4**A shows the aerosol-generating system during a first inhalation session in which the first heating

element **310** of the aerosol-generating device **300** is activated to heat the first portion of aerosol-generating substrate **210** of the aerosol-generating article **200**. As shown by the arrows in FIG. **4**A, during the first inhalation session air is drawn into the aerosol-generating article **200** through an external annular surface of the first portion of aerosol-generating substrate **210**. As the first separator **220** and the first barrier **230** are substantially air-impermeable, air entering the aerosol-generating article **200** through the external annular surface of the first portion of aerosol-generating substrate **210** is preferentially drawn in a transverse direction through the first portion of aerosol-generating substrate **210** into the hollow cavity **250**, rather than in a longitudinal direction through the first separator **220** into the second portion of aerosol-generating substrate **212** or in a longitudinal direction through the first barrier **230**.

[0571] Heating of the first portion of aerosol-generating substrate **210** of the aerosol-generating article **200** by the first heating element **310** of the aerosol-generating device **300** releases volatile compounds from the non-tobacco plant material in the first portion of aerosol-generating substrate **210**, which are entrained in the air as it is drawn through the first portion of aerosol-generating substrate **210** into the hollow cavity **250**. The air and entrained compounds cool and condense as they are drawn along the hollow cavity **250** to form an aerosol that exits the aerosol-generating article **200** through the proximal end of the aerosol-generating article **200** and is delivered to a user through the mouthpiece **320** of the aerosol-generating device **300**.

[0572] As shown by the arrows in FIG. **4**A, the aerosol generated through heating of the first portion of aerosol-generating substrate **210** of the aerosol-generating article **200** by the first heating element **310** of the aerosol-generating device **300** during the first inhalation session is delivered to a user without being drawn through any of the other portions of aerosol-generating substrate **212**, **214**, **216**, **218** of the aerosol-generating article **200**.

[0573] FIG. **4**B shows the aerosol-generating system during a subsequent second inhalation session in which the second heating element **312** of the aerosol-generating device **300** is activated to heat the second portion of aerosol-generating substrate **212** of the aerosol-generating article **200**. As shown by the arrows in FIG. **4**B, during the second inhalation session air is drawn into the aerosol-generating article **200** through an external annular surface of the second portion of aerosol-generating substrate **212**. As the first separator **220** and the second separator **222** are substantially air-impermeable, air entering the aerosol-generating article **200** through the external annular surface of the second portion of aerosol-generating substrate **212** is preferentially drawn in a transverse direction through the second portion of aerosol-generating substrate **212** into the hollow cavity **250**, rather than in a longitudinal direction through the second separator **222** into the third portion of aerosol-generating substrate **214** or in a longitudinal direction through the first separator **220** into the first portion of aerosol-generating substrate **210**.

[0574] Heating of the second portion of aerosol-generating substrate **212** of the aerosol-generating article **200** by the second heating element **312** of the aerosol-generating device **300** releases nicotine and other volatile compounds from the tobacco material in the second portion of aerosol-generating substrate **212**, which are entrained in the air as it is drawn through the second portion of aerosol-generating substrate **212** into the hollow cavity **250**. The air and entrained compounds cool and condense as they are drawn along the hollow cavity **250** to form an aerosol that exits the aerosol-generating article **200** through the proximal end of the aerosol-generating article **200** and is delivered to a user through the mouthpiece **320** of the aerosol-generating device **300**.

[0575] As shown by the arrows in FIG. **4**B, the aerosol generated through heating of the second portion of aerosol-generating substrate **212** of the aerosol-generating article **200** by the second heating element **312** of the aerosol-generating device **300** during the second inhalation session is delivered to a user without being drawn through any of the other portions of aerosol-generating substrate **210**, **214**, **216**, **218** of the aerosol-generating article **200**.

[0576] Aerosols may similarly be generated through heating of the third portion of aerosol-generating substrate **214** of the aerosol-generating article **200** by the third heating element **314** of the aerosol-generating device **300** during a third inhalation session, through heating of the fourth portion of aerosol-generating substrate **216** of the aerosol-generating article **200** by the fourth heating element **316** of the aerosol-generating device **300** during a fourth inhalation session, and through heating of the fifth portion of aerosol-generating substrate **218** of the aerosol-generating article **200** by the first heating element **318** of the aerosol-generating device **300** during a fifth inhalation session.

[0577] The plurality of portions of aerosol-generating substrate **210**, **212**, **214**, **216**, **218** of the aerosol-generating article **200** may thereby be consumed sequentially.

[0578] As the aerosol generated through heating of each of the plurality of portions of aerosol-generating substrate **210**, **212**, **214**, **216**, **218** of the aerosol-generating article **200** in each inhalation session is delivered to a user without being drawn through any other of the plurality of portions of aerosol-generating substrate of the aerosol-generating article **200**, use of the aerosol-generating article may advantageously be interrupted and subsequently resumed by a user without compromising the delivery performance and taste of aerosol delivered in each inhalation session.

[0579] In the aerosol-generating system in accordance with the first embodiment of the second aspect of the invention shown in FIGS. **4**A and **4**B the plurality of portions of aerosol-generating substrate of the aerosol-generating article **200** are consumed sequentially from a distal end of the plurality of portions of aerosol-generating substrate to a proximal end of the plurality of portions of aerosol-generating substrate. However, it will be appreciated that in other embodiments of the second aspect of the invention (not shown) the plurality of portions of aerosol-generating substrate of the aerosol-generating article may be consumed sequentially from a proximal end of the plurality of portions of aerosol-generating substrate to a distal end of the plurality of portions of aerosol-generating substrate.

[0580] In the aerosol-generating system in accordance with the first embodiment of the second aspect of the invention shown in FIGS. **4**A and **4**B, the aerosol-generating article **200** comprises a second barrier **240**. However, it will be appreciated that in other embodiments of the second aspect of the invention (not shown) the second barrier may be omitted.

[0581] It will also be appreciated that in other embodiments of the second aspect of the invention (not shown) the aerosol-generating device may comprise the second barrier.

For example, the aerosol-generating device **300** may comprise an air-impermeable annular lip or seat located at the proximal end of the device cavity.

[0582] FIG. **5** shows an aerosol-generating article **400** in accordance with a third embodiment of the first aspect of the invention. The aerosol-generating article **400** in accordance with the third embodiment of the first aspect of the invention shown in FIG. **3** is of substantially similar construction to the aerosol-generating article **100** in accordance with the first embodiment of the first aspect of the invention shown in FIG. **1** and like reference numerals are used in FIGS. **1** and **3** to designate like parts.

[0583] The aerosol-generating article **400** in accordance with the third embodiment of the first aspect of the invention shown in FIG. **3** differs from the aerosol-generating article **100** in accordance with the first embodiment of the first aspect of the invention shown in FIG. **1** in that in the aerosol-generating article **400** in accordance with the third embodiment of the first aspect of the invention shown in FIG. **3** the first barrier **130** is not located at the distal end of the aerosol-generating article **400**. Instead, the aerosol-generating article **400** in accordance with the third embodiment of the first aspect of the invention shown in FIG. **3** comprises a plug **410** of cellulose acetate tow located at the distal end of the aerosol-generating article. The plug **410** is located upstream of the first barrier **130**.

[0584] The first barrier **130** substantially prevents air from being drawn into the first portion of aerosol-generating substrate **110** through the plug **410**.

[0585] The specific embodiments and examples described above illustrate, but do not limit, the invention. It is to be understood that other embodiments of the invention may be made and the specific embodiments and examples described herein are not exhaustive.

1.-**15**. (canceled)

16. An aerosol-generating article having a proximal end and a distal end, the aerosol-generating article comprising:

a plurality of portions of aerosol-generating substrate arranged in a series along a longitudinal direction of the aerosol-generating article;

a first barrier located between the plurality of portions of aerosol-generating substrate and the distal end of the aerosol-generating article; and

one or more separators,

wherein the plurality of portions of aerosol-generating substrate comprise two portions of aerosol-generating substrate that are separated from one another by at least one of the one or more separators, and

wherein the first barrier and the one or more separators are substantially air-impermeable.

17. The aerosol-generating article according to claim **16**, wherein the plurality of portions of aerosol-generating substrate comprises three or more portions of aerosol-generating substrate.

18. The aerosol-generating article according to claim **16**, wherein each of the plurality of portions of aerosol-generating substrate in the series is separated from other portions of aerosol-generating substrate in the series by at least one of the one or more separators.

19. The aerosol-generating article according to claim **16**, wherein the plurality of portions of aerosol-generating comprises n portions of aerosol-generating substrate, and the aerosol-generating article comprises n−1 separators.

20. The aerosol-generating article according to claim **16**, wherein the first barrier is located at the distal end of the aerosol-generating article.

21. The aerosol-generating article according to claim **16**, further comprising a second barrier located between the plurality of portions of aerosol-generating substrate and the proximal end of the aerosol-generating article,

wherein the second barrier is substantially air-impermeable.

22. The aerosol-generating article according to claim **16**, further comprising a hollow cavity extending along the longitudinal direction of the aerosol-generating article,

wherein the plurality of portions of aerosol-generating substrate and the one or more separators are located about a perimeter of the hollow cavity.

23. The aerosol-generating article according to claim **22**, wherein the plurality of portions of aerosol-generating substrate and the one or more separators have substantially annular transverse cross-sections, and the plurality of portions of aerosol-generating substrate and the one or more separators circumscribe the hollow cavity.

24. The aerosol-generating article according to claim **23**, wherein the hollow cavity is defined by internal annular surfaces of the plurality of portions of aerosol-generating substrate and the one or more separators.

25. The aerosol-generating article according to claim **22**, further comprising a hollow tubular element extending along the longitudinal direction of the aerosol-generating article,

wherein the hollow cavity is defined by an internal surface of the hollow tubular element.

26. The aerosol-generating article according to claim **25**, wherein the hollow tubular element comprises an air-permeable wall circumscribing the hollow cavity.

27. The aerosol-generating article according to claim **16**, wherein each of the plurality of portions of aerosol-generating substrate has substantially a same composition.

28. The aerosol-generating article according to claim **16**, wherein the plurality of portions of aerosol-generating substrate comprises at least two portions of aerosol-generating substrate having a different composition from one another.

29. The aerosol-generating article according to claim **16**, wherein at least one of the plurality of portions of aerosol-generating substrate comprises tobacco material.

30. The aerosol-generating article according to claim **16**, further comprising an air-permeable wrapper that circumscribes the plurality of portions of aerosol-generating substrate and the one or more separators.

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