compounds in black tea infusions by combining instrumental analysis and human bioresponse." J Agric and Food Chem 2004, 52:3498-3508.

[Summary]

[Technical Problem]

[0007]

The present invention has been made in view of the aforementioned situation, and the problem to be solved thereby is provision of a flavoring composition that can effectively enhance a mouth-coating feel, a food with an effectively enhanced mouth-coating feel and a production method thereof, a method for effectively enhancing a mouth-coating feel, and the like.

[Solution to Problem]

[0008]

The present inventors have conducted intensive studies of the above-mentioned problems and found that the mouth-coating feel can be enhanced by adding at least two compounds selected from the group consisting of (A) a compound represented by the following formula (I) (e.g., cyclotene, etc.), (B) β-caryophyllene oxide, and (C) a compound represented by the following formula (II) (e.g., furfural, etc.) to a food. The present inventors have conducted further studies based on such finding and completed the present invention.

That is, the present invention provides the following.

[0009]

[1] A flavoring composition comprising at least two compounds selected from the group consisting of

(A) a compound represented by the formula (I):

[0010]

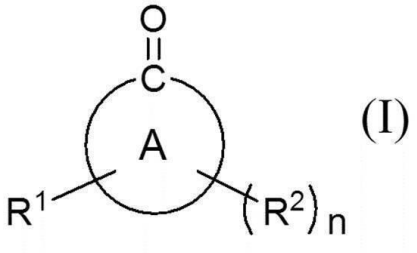
and (B) are added such that the weight ratio of the concentration a of (A) and the concentration b of (B) in the food (a:b) is a:b=1:0.001 to 1000.

[62] The enhancing method of any one of [50] to [61], wherein the method comprises adding at least (A) and (C), and said (A) and (C) are added such that the weight ratio of the concentration a of (A) and the concentration c of (C) in the food (a:c) is a:c=1:0.001 to 1000.

[63] The enhancing method of any one of [50] to [62], wherein the method comprises adding at least (B) and (C), and said (B) and (C) are added such that the weight ratio of the concentration b of (B) and the concentration c of (C) in the food (b:c) is b:c=1:0.001 to 1000.

In one aspect, the present disclosure relates to a flavoring composition comprising at least two compounds selected from the group consisting of

(A) a compound represented by the formula (I):



(I)

wherein

ring A is a 5-membered or 6-membered, saturated or unsaturated, carbocycle or oxygen-containing or nitrogen-containing heterocycle;

R^1 is an oxo group, a hydroxy group, an alkoxy group having 1 - 4 carbon atoms, an acyloxy group having 1 - 4 carbon atoms, a hydrocarbon group having 1 - 8 carbon atoms and optionally having substituent(s), or a hydrogen atom, and when R^1 is a hydrocarbon group having 1 - 8 carbon atoms and optionally having substituent(s), a carbon atom in the hydrocarbon group may be bonded to a carbon atom of ring A to form a crosslinked structure or a saturated or unsaturated

ring structure;

R^2 is a hydrocarbon group having 1 - 8 carbon atoms, a hydroxy group, or a hydrogen atom; and

n is an integer of 1 to 3,

(B) β-caryophyllene oxide, and

(C) a compound represented by the formula (II):

wherein

R^3 is an acyl group having 1 - 6 carbon atoms, a hydroxy group, a pyrrole group, or an acyloxy group having 1 - 6 carbon atoms;

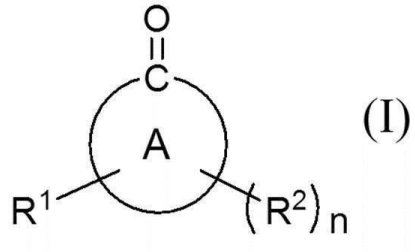
Z is a single bond or an alkylene group having 1 - 6 carbon atoms;

R^4 is a substituent; and

m is an integer of 0 to 3.

In another aspect, the present disclosure relates to a method for producing a food, comprising adding at least two compounds selected from the group consisting of

(A) a compound represented by the formula (I):



(I)

wherein

ring A is a 5-membered or 6-membered, saturated or unsaturated, carbocycle or oxygen-containing or nitrogen-containing heterocycle;

R^1 is an oxo group, a hydroxy group, an alkoxy group having 1 - 4 carbon atoms, an acyloxy group having 1 - 4 carbon atoms, a hydrocarbon group having 1 - 8 carbon atoms and optionally having substituent(s), or a hydrogen atom, and when R^1 is a hydrocarbon group having 1 - 8 carbon atoms and optionally having substituent(s), a carbon atom in the hydrocarbon group may be bonded to a carbon atom of ring A to

form a crosslinked structure or a saturated or unsaturated ring structure;

R^2 is a hydrocarbon group having 1 - 8 carbon atoms, a hydroxy group, or a hydrogen atom; and

n is an integer of 1 to 3,

(B) β-caryophyllene oxide, and

(C) a compound represented by the formula (II):

wherein

R^3 is an acyl group having 1 - 6 carbon atoms, a hydroxy group, a pyrrole group, or an acyloxy group having 1 - 6 carbon atoms;

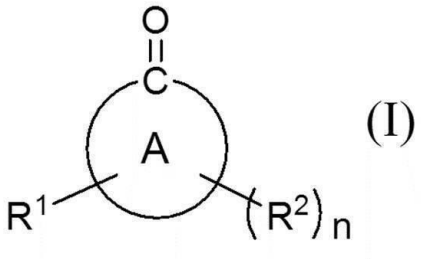
Z is a single bond or an alkylene group having 1 - 6 carbon atoms;

R^4 is a substituent; and

m is an integer of 0 to 3.

In another aspect, the present disclosure relates to a food comprising at least two compounds selected from the group consisting of

(A) a compound represented by the formula (I):



(I)

wherein

ring A is a 5-membered or 6-membered, saturated or unsaturated, carbocycle or oxygen-containing or nitrogen-containing heterocycle;

R^1 is an oxo group, a hydroxy group, an alkoxy group having 1 - 4 carbon atoms, an acyloxy group having 1 - 4 carbon atoms, a hydrocarbon group having 1 - 8 carbon atoms and optionally having substituent(s), or a hydrogen atom, and when R^1 is a hydrocarbon group having 1 - 8 carbon atoms and

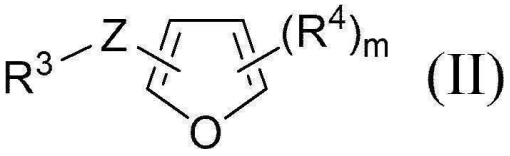
optionally having substituent(s), a carbon atom in the hydrocarbon group may be bonded to a carbon atom of ring A to form a crosslinked structure or a saturated or unsaturated ring structure;

R^2 is a hydrocarbon group having 1 - 8 carbon atoms, a hydroxy group, or a hydrogen atom; and

n is an integer of 1 to 3,

(B) β-caryophyllene oxide, and

(C) a compound represented by the formula (II):



(II)

wherein

R^3 is an acyl group having 1 - 6 carbon atoms, a hydroxy group, a pyrrole group, or an acyloxy group having 1 - 6 carbon atoms;

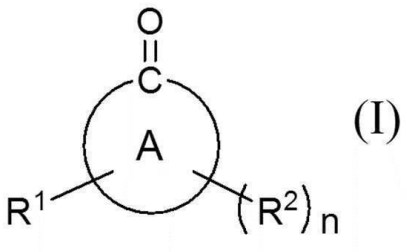
Z is a single bond or an alkylene group having 1 - 6 carbon atoms;

R^4 is a substituent; and

m is an integer of 0 to 3.

In another aspect, the present disclosure relates to a method for enhancing a mouth-coating feel, comprising adding to a food at least two compounds selected from the group consisting of

(A) a compound represented by the formula (I):



(I)

wherein

ring A is a 5-membered or 6-membered, saturated or unsaturated, carbocycle or oxygen-containing or nitrogen-containing heterocycle;

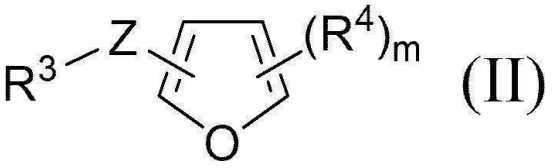
R^1 is an oxo group, a hydroxy group, an alkoxy group having 1 - 4 carbon atoms, an acyloxy group having 1 - 4 carbon atoms, a hydrocarbon group having 1 - 8 carbon atoms and optionally having substituent(s), or a hydrogen atom, and when R^1 is a hydrocarbon group having 1 - 8 carbon atoms and optionally having substituent(s), a carbon atom in the hydrocarbon group may be bonded to a carbon atom of ring A to form a crosslinked structure or a saturated or unsaturated ring structure;

R^2 is a hydrocarbon group having 1 - 8 carbon atoms, a hydroxy group, or a hydrogen atom; and

n is an integer of 1 to 3,

(B) β-caryophyllene oxide, and

(C) a compound represented by the formula (II):



(II)

wherein

R^3 is an acyl group having 1 - 6 carbon atoms, a hydroxy group, a pyrrole group, or an acyloxy group having 1 - 6 carbon atoms;

Z is a single bond or an alkylene group having 1 - 6 carbon atoms;

R^4 is a substituent; and

m is an integer of 0 to 3.

[Advantageous Effects of Invention]

[0026]

According to the present invention, a flavoring composition capable of effectively enhancing a mouth-coating feel can be provided. According to the present invention, moreover, a flavoring composition capable of effectively enhancing a mouth-coating feel without imparting an off-flavor to a food can be provided.

According to the present invention, a food with an effectively enhanced mouth-coating feel and a production method thereof can be provided. According to the present invention, moreover, a food with an effectively enhanced mouth-coating feel and without an off-flavor, and a production method thereof can be provided.

According to the present invention, a method capable of effectively enhancing a mouth-coating feel can be provided. According to the present invention, moreover, a method capable of effectively enhancing a mouth-coating feel without imparting an off-flavor to a food can be provided.

[Description of Embodiments]

[0027]