CLAIMS

1. A method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high antioxidative potency and ORAC value, comprising:

storing an oyster meat in an extraction container where water is accumulated, and extracting an oyster meat essence from the oyster meat in the extraction container to generate an extract liquid;

injecting the generated extract liquid to a centrifuge, concurrently rotating the centrifuge at a centrifugal acceleration so that an antioxidant substance with high antioxidative potency and ORAC value is separated and removed from the extract liquid so as to separate the antioxidant substance with high antioxidative potency and ORAC value from the liquid; and

obtaining the oyster meat essence incorporating the large amount of antioxidant substance with high antioxidative potency and ORAC value after the separation.

2. A method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high antioxidative potency and ORAC value, comprising:

storing an oyster meat in an extraction container where water is accumulated, extracting an oyster meat essence from the oyster meat in the extraction container to generate an extract liquid, removing the oyster meat after the extraction, concentrating the extract liquid after the removal of the oyster meat to generate a concentration liquid, adding ethanol to the concentration liquid, stirring the concentration liquid to separate the concentration liquid into a precipitate and a supernatant, and removing the supernatant after the separation;

injecting the removed supernatant to a centrifuge, concurrently rotating the centrifuge at a centrifugal acceleration so that an antioxidant substance with high antioxidative potency and ORAC value in the supernatant is separated and removed, and separating the antioxidant substance with high antioxidative potency and ORAC value as a centrifugation supernatant from the injected supernatant; and

collecting the oyster meat essence incorporating the large amount of antioxidant substance with high antioxidative potency and ORAC value in the centrifugation supernatant.

3. A method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high antioxidative potency and ORAC value, comprising:

storing an oyster meat in an extraction container where water is accumulated, extracting an oyster meat essence from the oyster meat in the extraction container to generate an extract liquid, removing the oyster meat after the extraction, concentrating the extract liquid after the removal of the oyster meat to generate a concentration liquid, adding ethanol to the concentration liquid, stirring the concentration liquid to separate the concentration liquid into a precipitate and a supernatant, and removing the supernatant after the separation;

injecting the removed supernatant to a centrifuge, concurrently rotating the centrifuge at a rotation speed where a centrifugal acceleration exceeding a diffusion force of a substance without antioxidative potency or a substance with low antioxidative potency in the supernatant is allowed to be obtained, and separating the substance without antioxidative potency or the substance with low antioxidative potency from the injected supernatant to a centrifugation precipitate side to separate the supernatant into a centrifugation supernatant and a centrifugation precipitate; and

incorporating a large amount of antioxidant substance with high antioxidative potency and ORAC value in the centrifugation supernatant after the separation.

4. A method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high antioxidative potency and ORAC value, comprising:

storing an oyster meat in an extraction container where water is accumulated, extracting an oyster meat essence from the oyster meat in the extraction container to generate an extract liquid, removing the oyster meat after the extraction, concentrating the extract liquid after the removal of the oyster meat to generate a concentration liquid, adding ethanol to the concentration liquid, stirring the concentration liquid to separate the concentration liquid into a precipitate and a supernatant, and removing the supernatant after the separation;

injecting the removed supernatant continuously to a continuous centrifuge, concurrently rotating the continuous centrifuge at a rotation speed where a centrifugal acceleration exceeding a diffusion force of a substance without antioxidative potency or a substance with low antioxidative potency in the supernatant is allowed to be obtained, separating the substance without antioxidative potency or the substance with low antioxidative potency from the injected supernatant to a centrifugation precipitate side to separate the supernatant into a centrifugation supernatant and a centrifugation precipitate; and

incorporating a large amount of antioxidant substance with high antioxidative potency and ORAC value in the centrifugation supernatant after the separation.

5. A method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high antioxidative potency and ORAC value, comprising:

storing an oyster meat in an extraction container where water is accumulated, extracting an oyster meat essence from the oyster meat in the extraction container to generate an extract liquid, removing the oyster meat after the extraction, concentrating the extract liquid after the removal of the oyster meat to generate concentration liquid, adding ethanol to the concentration liquid so that ethanol concentration becomes 30% to 90%, preferably, 70%, stirring the concentration liquid to separate the concentration liquid into a precipitate and a supernatant, and removing the supernatant after the separation;

injecting the removed supernatant continuously to a continuous centrifuge, concurrently rotating the continuous centrifuge at a rotation speed where a centrifugal acceleration exceeding a diffusion force of a substance without antioxidative potency or a substance with low antioxidative potency in the supernatant is able to be obtained, and separating the substance without antioxidative potency or the substance with low antioxidative potency from the injected supernatant to a centrifugation precipitate side to separate the supernatant into a centrifugation supernatant and a centrifugation precipitate; and

incorporating a large amount of antioxidant substance with high antioxidative potency and ORAC value in the centrifugation supernatant after the separation.

6. The method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high antioxidative potency and ORAC value according to claim 4, claim 5, or claim 6, wherein

the centrifugal acceleration of the continuous centrifuge exceeding the diffusion force of the substance without antioxidative potency or the substance with low antioxidative potency in the supernatant is approximately $8000 \times G$.

7. A method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with a high ORAC value, comprising:

storing an oyster meat in an extraction container where water is accumulated, extracting an oyster meat essence from the oyster meat in the extraction container to generate an extract liquid, subsequently concentrating the extract liquid to generate a first concentration liquid, adding ethanol to the first concentration liquid, separating the first concentration liquid into a precipitate and a first supernatant, removing the first supernatant after the separation, and centrifuging the first supernatant to separate the first supernatant into a precipitate and a second supernatant;

concentrating the separated second supernatant to generate a second concentration liquid, adding ethanol to the second concentration liquid, and shaking the second concentration liquid; and

separating the second concentration liquid into a third supernatant of an ethanol layer at an upper side and a water layer at a lower side to incorporate a large amount of antioxidant substance with high ORAC value in the separated third supernatant.

8. A method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high ORAC value, comprising:

storing an oyster meat in an extraction container where water is accumulated, extracting an oyster meat essence from the oyster meat in the extraction container to generate an extract liquid, subsequently concentrating the extract liquid to generate a first concentration liquid, adding ethanol to the first concentration liquid, separating the first

concentration liquid into a precipitate and a first supernatant, removing the first supernatant after the separation, and centrifuging the removed first supernatant to separate the first supernatant into a precipitate and a second supernatant;

concentrating the separated second supernatant to generate a second concentration liquid, adding ethanol to the second concentration liquid, and shaking the second concentration liquid; and

separating the second concentration liquid into a third supernatant of an ethanol layer at an upper side and a water layer at a lower side, and concentrating the separated third supernatant to generate a paste-like concentrate to incorporate a large amount of antioxidant substance with high ORAC value in the concentrate.

9. A method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high ORAC value, comprising:

storing an oyster meat in an extraction container where water is accumulated, extracting an oyster meat essence from the oyster meat in the extraction container to generate an extract liquid, subsequently concentrating the extract liquid to generate a first concentration liquid, adding ethanol to the first concentration liquid, separating the first concentration liquid into a precipitate and a first supernatant, removing the first supernatant after the separation, and centrifuging the removed first supernatant to separate the first supernatant into a precipitate and a second supernatant;

concentrating the separated second supernatant to generate a second concentration liquid, adding ethanol to the second concentration liquid so that ethanol concentration becomes 30% to 90%, and shaking the second concentration liquid; and

separating the second concentration liquid into a third supernatant of an ethanol layer at an upper side and a water layer at a lower side to incorporate a large amount of hydrophilic antioxidant substance, oleophilic antioxidant substance, and amphiphilic antioxidant substance with high ORAC value in the third supernatant.

10. A method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high ORAC value, comprising:

storing an oyster meat in an extraction container where water is accumulated, extracting an oyster meat essence from the oyster meat in the extraction container to generate an extract liquid, subsequently concentrating the extract liquid to generate a first concentration liquid, adding ethanol to the first concentration liquid, separating the first concentration liquid into a precipitate and a first supernatant, removing the first supernatant after the separation, and centrifuging the removed first supernatant to separate the first supernatant into a precipitate and a second supernatant;

concentrating the separated second supernatant to generate a second concentration liquid, adding ethanol to the second concentration liquid so that ethanol concentration becomes 30% to 90%, and shaking the second concentration liquid; and

separating the second concentration liquid into a third supernatant of an ethanol layer at an upper side and a water layer at a lower side, and concentrating the separated third supernatant to generate a paste-like concentrate to incorporate a large amount of hydrophilic antioxidant substance, oleophilic antioxidant substance, and amphiphilic antioxidant substance with high ORAC value in the concentrate.

11. The method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high ORAC value according to claim 9 or claim 10, further comprising:

centrifuging the third supernatant to separate the third supernatant into a precipitate and a fourth supernatant, and concentrating the separated fourth supernatant to generate a paste-like concentrate to incorporate a large amount of hydrophilic antioxidant substance, oleophilic antioxidant substance, and amphiphilic antioxidant substance with high ORAC value in the concentrate.

12. The method for producing an oyster meat essence that incorporates a large amount of antioxidant substance with high ORAC value according to claim 11, further comprising:

further repeatedly performing the centrifugation to remove a supernatant after a final centrifugation, and concentrating the supernatant to generate a paste-like concentrate to incorporate a large amount of hydrophilic antioxidant substance, oleophilic antioxidant substance, and amphiphilic antioxidant substance with high ORAC value in the concentrate.

CLAIMS

1. A method for producing an oyster meat essence containing antioxidant substance with high antioxidative potency, comprising the step of:

(a) storing oyster meat in an extraction container containing water at a normal pressure;

(b) extracting oyster meat essence in form of liquid from the extraction container;

(c) concentrating the oyster meat essence;

(d) adding ethanol to the concentrated oyster meat essence so that the ethanol concentration of the said concentrated oyster meat essence is ranging from 30% to 90%;

(e) stirring the concentrated oyster meat essence resulted from step (d) to separate into a precipitate and a supernatant; and

(f) continuously centrifuging the supernatant resulted from step (e) in a continuous centrifugal separator so that substance with low antioxidative potency and/or without antioxidative potency in the supernatant is separated as a centrifugation precipitate and antioxidant substance with high antioxidative potency is obtained as a centrifugation supernatant.

2. The method as claimed in Claim 1, wherein the said ethanol concentration of the said concentrated oyster meat essence is preferably of 70%.

3. The method as claimed in Claim 1, wherein the continuous centrifugal separator is concurrently rotated at a speed of 8000 x G.

4. A method for producing an oyster meat essence containing antioxidant substance with high antioxidative potency, comprising the step of:

(a) storing oyster meat in an extraction container containing water at a normal pressure;

(b) extracting oyster meat essence in form of liquid from the extraction container;

(c) concentrating the oyster meat essence to generate a first concentration liquid;

(d) adding ethanol to the first concentration liquid so that the ethanol concentration of the first concentration liquid is ranging from 30% to 90%;

(e) stirring the first concentration liquid resulted from step (d) to separate into a precipitate and a first supernatant;

(f) centrifuging the first supernatant to separate into a precipitate and a second supernatant;

(g) concentrating the separated second supernatant to generate a second concentration;

(h) adding ethanol to the second concentration liquid so that the ethanol concentration of the second concentration liquid is ranging from 30% to 90%;,

(i) separating the second concentration liquid into a third supernatant of an ethanol layer at an upper side and a water later at a lower side; and

(j) concentrating the separated third supernatant to generate a paste-like concentrate to incorporate a large amount of antioxidant substance with high antioxidative potency.

5. The method as claimed in Claim 4, wherein further comprising the step of centrifuging the third supernatant to separate the third supernatant into a precipitate and a fourth supernatant, and concentrating the separated fourth supernatant to generate a paste-like concentrate to incorporate a large amount of antioxidant substance with high oxidative potency.

6. The method as claimed in Claim 5, wherein further comprising the step of repeatedly performing the centrifugation to remove supernatant after a final centrifugation, and concentrating the supernatant to generate a paste-like concentrate to incorporate a large amount of antioxidant substance with high oxidative potency.

7. The method as claimed in Claim 4, wherein the ethanol concentration of the first and second concentration liquid is of 70%.

8. The method as claimed in Claim 4 to 6 wherein the step of centrifugation involves centrifuging the resultant supernatants at a rotation speed of 8000 x G.

9. The method as claimed in Claim 4 to 6 wherein said large amount of antioxidant substance with high antioxidative potency including hydrophilic antioxidant substance, oleophilic antioxidant substance, and amphiphilic antioxidant substance with high ORAC value.