



1. (WO2015013704) SYSTEM AND METHOD FOR RAPID MATURATION OF DISTILLED SPIRITS .

Note: Text based on automatic Optical Character Recognition processes. Please use the PDF version for legal matters

CLAIMS

What is claimed is:

1. A process for producing a distilled spirit having characteristics associated with a mature spirit comprising:

contacting an unmaturred distilled spirit with wood to give a distilled spirit mixture, and maintaining the temperature of the distilled spirit mixture between about 140° F and about 170° F for a period of time ranging from about 12 hours to about 336 hours in a sealed vessel or under reflux such that evaporation of volatile compounds is prevented.

2. The process of claim 1, wherein the spirit is chosen from sugar cane spirits, grain spirits, fruit spirits, or agave spirits.

3. The process of claim 1, wherein the spirit is chosen from rum, tequila, mescal, whiskey, brandy, and gin.

4. The process of claim 1, wherein the unmaturred distilled spirit is characterized by an ethyl decanoate concentration and the ethyl decanoate concentration increases by at least about 1.5X during the process.

5. The process of claim 1, wherein the unmaturred distilled spirit is characterized by an ethyl decanoate concentration and the ethyl decanoate concentration increases by at least about 1.7X during the process.

6. The process of claim 1, wherein the unmaturred distilled spirit is characterized by an ethyl acetate concentration and the ethyl acetate concentration decreases by at least about 50% during the process.

7. The process of claim 1, wherein the temperature is maintained between about 150° F and about 160° F.

8. The process of claim 1, wherein the wood is oak.

9. The process of claim 1, wherein the process is conducted in the absence of an added acid.

10. The process of claim 1, wherein the temperature is maintained between about 140° F and about 150° F for a period of time ranging from about 168 hours to about 226 hours.

11. The process of claim 1, wherein the temperature is maintained between about 150° F and about 160° F for a period of time ranging from about 12 hours to about 72 hours.

12. The process of claim 1, wherein the temperature is maintained between about 150° F and about 160° F for a period of time ranging from about 12 hours to about 48 hours.

13. A process for producing a distilled spirit having characteristics associated with a matured distilled spirit comprising:

(a) obtaining a marker concentration of a chemical compound in a target matured distilled spirit thereby giving a target marker concentration,

(b) contacting an unmaturred distilled spirit with wood to form a distilled spirit mixture;

(c) measuring the marker concentration of the distilled spirit mixture; and

(d) heating the distilled spirit mixture to a temperature between about 140° F and about 170° F in a sealed vessel or under reflux such that evaporation of volatile compounds is prevented until the marker concentration of the distilled spirit mixture reaches the target marker concentration.

14. The process of claim 13, wherein the spirit is chosen from sugar cane spirits, grain spirits, fruit spirits, or agave spirits.

15. The process of claim 13, wherein the unmaturred distilled spirit is chosen from rum, tequila, mescal, whiskey, brandy, or gin.

16. The process of claim 13, wherein the mixture is heated to a temperature of about 150° F and about 160° F.

17. The process of claim 13, wherein the marker concentration is measured by mass spectrometry, high performance liquid chromatography, gas chromatography, or calorimetric methods.

18. The process of claim 13, wherein the marker is ethyl acetate.

19. The process of claim 13, wherein the marker is ethyl decanoate.

20. The process of claim 13, wherein the marker is one or more semi-volatiles.

21. The process of claim 13, wherein the target marker concentration is higher than the concentration in the unmaturred distilled spirit.

22. The process of claim 13, wherein the target marker concentration is lower than the concentration in the unmaturred distilled spirit.

23. A process for producing a spirit having characteristics of a matured distilled spirit comprising:

contacting an unmatured distilled spirit with wood to give a distilled spirit mixture, and maintaining the temperature of the distilled spirit mixture between about 140° F and about 170° F in a sealed vessel or under reflux such that evaporation of volatile compounds is prevented until the ethyl decanoate concentration is increased by at least about 1.5X.

24. The process of claim 23, wherein the temperature is maintained between about 150° F and about 160° F.

25. The process of claim 23, wherein the temperature is maintained between about 150° F and about 160° F for a period of time ranging from about 12 hours to about 48 hours.

26. The process of claim 25, wherein the spirit is chosen from rum, tequila, mescal, whiskey, brandy, and gin.

27. The process of claim 26, wherein the ethyl decanoate concentration is increased by at least about 1.7X.