What is claimed is:

1. Isolated rebaudioside C crystalline Form I, which has a powder X-ray diffraction pattern at Cu Kα wavelength 1.54 Å as shown in Figure 2.

2. The isolated rebaudioside C crystalline Form I of claim 1, wherein the d-spacing distances (Å) of significant peaks as determined by powder X-ray diffraction are: 8.6, 9.8, 12.6, 13.6, 13.9, 14.2, 14.9, 15.6, 17.0, 17.4, 18.2, 19.9, 21.3, 22.6, 23.3, 25.5, 27.2, 28.4, 28.9, and 30.0.

3. A method for making the isolated rebaudioside C crystalline Form I of claim 1 or claim 2 comprising:

(a) adding a crystallization solution comprising methanol and isopropanol to a substantially pure rebaudioside C solid to completely dissolve the rebaudioside;

(b) allowing the solution of step (a) to dry completely at room temperature; and

(c) recovering isolated rebaudioside C crystalline Form I crystals formed in step (b).

4. The method of claim 3, further comprising the presteps of:

(i) adding a crystallization solution to a substantially pure rebaudioside C solid to completely dissolve said solid;

(ii) allowing the crystallization solution of step (i) to evaporate completely at room temperature; and

(iii) recovering rebaudioside C crystals as a substantially pure rebaudioside C solid.

5. The method of claim 4, wherein the crystallization solution of step (i) comprises acetone, acetonitrile, methanol, ethanol, propanol, isopropanol, butanol, 2-butanol, tert-butanol, or mixtures thereof.

6. The method of claim 5, wherein the crystallization solution comprises methanol and isopropanol present in a weight ratio ranging from about 5 parts to about 1 part isopropanol to about 1 part methanol.

7. The method of any one of claims 3-6, wherein the substantially pure rebaudioside C solid and the crystallization solution are combined in a weight ratio from about 30 parts to about 1 part substantially pure rebaudioside C to about 1 part crystallization solution.

8. A method of purifying rebaudioside C comprising the steps of:

(a) adding a crystallization solution to a *Stevia* extract solid or crude rebaudioside C solid to produce a crude rebaudioside C solution, wherein the *Stevia* extract solid contains at least 0.6% of rebaudioside C by dry weight, and the crude rebaudioside C solid contains at least 40% of rebaudioside C by dry weight;

(b) seeding said crude rebaudioside C solution with isolated rebaudioside C crystalline Form I crystals of claim 1 or claim 2;

(c) allowing said crude rebaudioside C solution to dry completely at room temperature;

(d) recovering rebaudioside C crystals formed in step (c);

(e) adding a crystallization solution comprising methanol and isopropanol to the rebaudioside C crystals of step (d) to completely dissolve said crystals;

(f) allowing the solution of step (e) to dry completely at room temperature; and

(g) recovering isolated rebaudioside C crystalline Form I crystals formed in step (f).

9. The method of claim 8, wherein the crystallization solvent comprises acetone, acetonitrile, methanol, ethanol, propanol, isopropanol, butanol, 2-butanol, tert-butanol, or mixtures thereof.

10. The method of claim 9, wherein the crystallization solvent comprises methanol and isopropanol present in a weight ratio from about 5 parts to about 1 part isopropanol to about 1 part methanol.

11. The method of claim 9, further comprising seeding the crystallization solution of step (e) with isolated rebaudioside C crystalline Form I crystals of claim 1 or claim 2.

12. A method of purifying rebaudioside C comprising the steps of:

(a) adding a crystallization solution comprising methanol and isopropanol to a *Stevia* extract solid or crude rebaudioside C solid to produce a crude rebaudioside C solution, wherein the *Stevia* extract solid contains at least 0.6% of rebaudioside C by dry weight and the crude rebaudioside C solid contains at least 40% of rebaudioside C by dry weight;

(b) seeding said crude rebaudioside C solution with the isolated rebaudioside C crystalline Form I crystals of claim 1 or claim 2;

(c) allowing said crude rebaudioside C solution to dry completely at room temperature; and

(d) recovering isolated rebaudioside C crystalline Form I crystals formed in step (c).

13. The method of any one of claims 8-12, further comprising the step of heating the crude rebaudioside C solution.

14. The method of claim 13, further comprising the step of cooling the crude rebaudioside C solution.

15. The method of any one of claims 8-14, wherein said crude rebaudioside C solid comprises substantially no rebaudioside D impurity and/or rebaudioside A impurity, and the method further comprises slurrying the isolated rebaudioside C crystalline Form I crystals in a slurry solution.

16. A method of enhancing a sweet taste of a carbohydrate sweetener, comprising administering to a subject the carbohydrate sweetener and isolated rebaudioside C crystalline Form I of claim 1 or claim 2 in an amount effective to provide the sweet taste enhancing effect without exhibiting an off-taste.

17. The method of claim 16, wherein the carbohydrate sweetener is sucrose, fructose, glucose, high fructose corn syrup, xylose, arabinose or rhamnose.

18. The method of claim 16, wherein the carbohydrate sweetener is a sugar alcohol.

19. The method of claim 18, wherein the sugar alcohol is erythritol, xylitol, mannitol, sorbitol, or inositol.

20. The method of any one of claims 16-19, wherein the carbohydrate sweetener and isolated rebaudioside C crystalline Form I are administered in a consumable.

21. The method of claim 20, wherein the consumable is a food product, pharmaceutical composition, a dietary supplement, a nutraceutical, a dental hygienic composition, a tabletop sweetener, or a cosmetic product.

22. The method of claim 21, wherein the food product is a beverage or a drink.

23. The method of any one of claims 16-22, wherein isolated rebaudioside C crystalline Form I is present at a concentration of from about 150 μM to about 600 μM.

24. The method of any one of claims 16-23, wherein the consumable has a sweetness intensity equivalent to about 5-12% (w/v-%) sucrose solution.

25. A consumable comprising a carbohydrate sweetener and isolated rebaudioside C crystalline Form I of claim 1 or claim 2 in an amount effective to enhance the sweet taste of the carbohydrate sweetener without exhibiting an off-taste.

26. The consumable of claim 25, wherein isolated rebaudioside C crystalline Form I is present at a concentration of from about 150 μM to about 600 μM.

27. The consumable of claim 25 or claim 26, wherein the consumable has a sweetness intensity equivalent to about 5-12% (w/v-%) sucrose solution.

28. The consumable of any one of claims 25-27, wherein the carbohydrate sweetener is sucrose, fructose, glucose, high fructose corn syrup, xylose, arabinose or rhamnose.

29. The consumable of any one of claims 25-27, wherein the carbohydrate sweetener is a sugar alcohol.

30. The consumable of claim 29, wherein the sugar alcohol is erythritol, xylitol, mannitol, sorbitol, or inositol.

31. The consumable of any one of claims 25-30, wherein the consumable is a food product, pharmaceutical composition, a dietary supplement, a nutraceutical, a dental hygienic composition, a tabletop sweetener or a cosmetic product.

32. The consumable of claim 31, wherein the food product is a beverage or a drink.

33. A method of decreasing the amount of a carbohydrate sweetener in a consumable, comprising adding isolated rebaudioside C crystalline Form I of claim 1 or claim 2 to the consumable and reducing the amount of the carbohydrate sweetener needed to exhibit a given level of sweetness.

34. The method of claim 33, wherein the carbohydrate sweetener is sucrose, fructose, glucose, high fructose corn syrup, xylose, arabinose or rhamnose.

35. The method of claim 33, wherein the carbohydrate sweetener is a sugar alcohol.

36. The method of claim 35, wherein the sugar alcohol is erythritol, xylitol, mannitol, sorbitol, or inositol.

37. The method of any one of claims 33-36, wherein the consumable is a food product, pharmaceutical composition, a dietary supplement, a nutraceutical, a dental hygienic composition, a tabletop sweetener or a cosmetic product.

38. The method of claim 37, wherein the food product is a beverage or a drink.

39. The method of any one of claims 33-38, wherein isolated rebaudioside C crystalline Form I is present at a concentration of from about 150 μM to about 600 μM.

40. The method of any one of claims 33-39, wherein the consumable has a sweetness intensity equivalent to about 5-12% (w/v-%) sucrose solution.

41. A method of enhancing the sweetness of a consumable comprising a carbohydrate sweetener, comprising adding isolated rebaudioside C crystalline Form I of claim 1 or claim 2 to the consumable in an amount effective to enhance the sweetness of the consumable.

42. The method of claim 41, wherein the consumable has a sweetness intensity equivalent to about 5-12% (w/v-%) sucrose solution.

43. The method of claim 41 or claim 42, wherein isolated rebaudioside C crystalline Form I is added to the consumable in an amount to obtain a concentration of from about 150 μM to about 600 μM.

44. The method of any one of claims 41-43, wherein about 0.1 to 0.5 g of isolated rebaudioside C crystalline Form I is added for every 50 to 100 g of the carbohydrate sweetener.

45. The method of any one of claims 41-44, wherein the carbohydrate sweetener is sucrose, fructose, glucose, high fructose corn syrup, xylose, arabinose, or rhamnose.

46. The method of any one of claims 41-44, wherein the carbohydrate sweetener is a sugar alcohol.

47. The method of claim 46, wherein the sugar alcohol is erythritol, xylitol, mannitol, sorbitol, or inositol.

48. The method of any one of claims 41-47, wherein the consumable is a food product, pharmaceutical composition, a dietary supplement, a nutraceutical, a dental hygienic composition, a tabletop sweetener or a cosmetic product.

49. The method of claim 48, wherein the food product is a beverage or a drink.

Claims:

1. Isolated rebaudioside C crystalline Form I, which has a powder X-ray diffraction pattern at Cu Kα wavelength 1.54 Å as shown in Figure 2.

2. The isolated rebaudioside C crystalline Form I of claim 1, wherein the d-spacing distances (Å) of significant peaks as determined by powder X-ray diffraction are: 8.6, 9.8, 12.6, 13.6, 13.9, 14.2, 14.9, 15.6, 17.0, 17.4, 18.2, 19.9, 21.3, 22.6, 23.3, 25.5, 27.2, 28.4, 28.9, and 30.0.

3. A method for making the isolated rebaudioside C crystalline Form I of claim 1 or claim 2 comprising:

(a) adding a crystallization solution comprising methanol and isopropanol to a substantially pure rebaudioside C solid to completely dissolve the rebaudioside;

(b) allowing the solution of step (a) to dry completely at room temperature; and

(c) recovering isolated rebaudioside C crystalline Form I crystals formed in step (b).

4. The method of claim 3, further comprising the presteps of:

(i) adding a crystallization solution to a substantially pure rebaudioside C solid to completely dissolve said solid;

(ii) allowing the crystallization solution of step (i) to evaporate completely at room temperature; and

(iii) recovering rebaudioside C crystals as a substantially pure rebaudioside C solid.

5. The method of claim 4, wherein the crystallization solution of step (i) comprises acetone, acetonitrile,

methanol, ethanol, propanol, isopropanol, butanol, 2-butanol, tert-butanol, or mixtures thereof.

6. The method of claim 5, wherein the crystallization solution comprises methanol and isopropanol present in a weight ratio ranging from about 5 parts to about 1 part isopropanol to about 1 part methanol.

7. The method of any one of claims 3-6, wherein the substantially pure rebaudioside C solid and the crystallization solution are combined in a weight ratio from about 30 parts to about 1 part substantially pure rebaudioside C to about 1 part crystallization solution.

8. A method of purifying rebaudioside C comprising the steps of:

(a) adding a crystallization solution to a *Stevia* extract solid or crude rebaudioside C solid to produce a crude rebaudioside C solution, wherein the *Stevia* extract solid contains at least 0.6% of rebaudioside C by dry weight, and the crude rebaudioside C solid contains at least 40% of rebaudioside C by dry weight;

(b) seeding said crude rebaudioside C solution with isolated rebaudioside C crystalline Form I crystals of claim 1 or claim 2;

(c) allowing said crude rebaudioside C solution to dry completely at room temperature;

(d) recovering rebaudioside C crystals formed in step (c);

(e) adding a crystallization solution comprising methanol and isopropanol to the rebaudioside C crystals of step (d) to completely dissolve said crystals;

(f) allowing the solution of step (e) to dry completely at room temperature; and

(g) recovering isolated rebaudioside C crystalline Form I crystals formed in step (f).

9. The method of claim 8, wherein the crystallization solvent comprises acetone, acetonitrile, methanol, ethanol, propanol, isopropanol, butanol, 2-butanol, tert-butanol, or mixtures thereof.

10. The method of claim 9, wherein the crystallization solvent comprises methanol and isopropanol present in a weight ratio from about 5 parts to about 1 part isopropanol to about 1 part methanol.

11. The method of claim 9, further comprising seeding the crystallization solution of step (e) with isolated rebaudioside C crystalline Form I crystals of claim 1 or claim 2.

12. A method of purifying rebaudioside C comprising the steps of:

(a) adding a crystallization solution comprising methanol and isopropanol to a *Stevia* extract solid or crude rebaudioside C solid to produce a crude rebaudioside C solution, wherein the *Stevia* extract solid contains at least 0.6% of rebaudioside C by dry weight and the crude rebaudioside C solid contains at least 40% of rebaudioside C by dry weight;

(b) seeding said crude rebaudioside C solution with the isolated rebaudioside C crystalline Form I crystals of claim 1 or claim 2;

(c) allowing said crude rebaudioside C solution to dry completely at room temperature; and

(d) recovering isolated rebaudioside C crystalline Form I crystals formed in step (c).

13. The method of any one of claims 8-12, further comprising the step of heating the crude rebaudioside C solution.

14. The method of claim 13, further comprising the step of cooling the crude rebaudioside C solution.

15. The method of any one of claims 8-14, wherein said crude rebaudioside C solid comprises substantially no rebaudioside D impurity and/or rebaudioside A impurity, and the method further comprises slurrying the isolated rebaudioside C crystalline Form I crystals in a slurry solution.

16. A method of enhancing a sweet taste of a carbohydrate sweetener, comprising administering to a subject the carbohydrate sweetener and isolated rebaudioside C crystalline Form I of claim 1 or claim 2 in an amount effective to provide the sweet taste enhancing effect without exhibiting an off-taste.

17. The method of claim 16, 32 or 33, wherein the carbohydrate sweetener is:

(i) sucrose, fructose, glucose, high fructose corn syrup, xylose, arabinose or rhamnose; or

(ii) a sugar alcohol.

18. The method of claim 17, wherein the sugar alcohol is erythritol, xylitol, mannitol, sorbitol, or inositol.

19. The method of any one of claims 16-18, wherein the carbohydrate sweetener and isolated rebaudioside C crystalline Form I are administered in a consumable.

20. The method of claim 19, wherein the consumable is a food product, pharmaceutical composition, a dietary supplement, a nutraceutical, a dental hygienic composition, a tabletop sweetener, or a cosmetic product.

21. The method of claim 20, wherein the food product is a beverage or a drink.

22. The method of any one of claims 16-21, wherein isolated rebaudioside C crystalline Form I is present at a concentration of from about 150 μM to about 600 μM.

23. The method of any one of claims 16-22, wherein the consumable has a sweetness intensity equivalent to about 5-12% (w/v-%) sucrose solution.

24. A consumable comprising a carbohydrate sweetener and isolated rebaudioside C crystalline Form I of claim 1 or claim 2 in an amount effective to enhance the sweet taste of the carbohydrate sweetener without exhibiting an off-taste.

25. The consumable of claim 24, wherein isolated rebaudioside C crystalline Form I is present at a concentration of from about 150 μM to about 600 μM.

26. The consumable of claim 24 or claim 25, wherein the consumable has a sweetness intensity equivalent to about 5-12% (w/v-%) sucrose solution.

27. The consumable of any one of claims 24-26, wherein the carbohydrate sweetener is sucrose, fructose, glucose, high fructose corn syrup, xylose, arabinose or rhamnose.

28. The consumable of any one of claims 24-27, wherein the carbohydrate sweetener is a sugar alcohol.

29. The consumable of claim 28, wherein the sugar alcohol is erythritol, xylitol, mannitol, sorbitol, or inositol.

30. The consumable of any one of claims 24-29, wherein the consumable is a food product, pharmaceutical composition, a dietary supplement, a nutraceutical, a dental hygienic composition, a tabletop sweetener or a cosmetic product.

31. The consumable of claim 30, wherein the food product is a beverage or a drink.

32. A method of decreasing the amount of a carbohydrate sweetener in a consumable, comprising adding isolated rebaudioside C crystalline Form I of claim 1 or claim 2 to the consumable and reducing the amount of the carbohydrate sweetener needed to exhibit a given level of sweetness.

33. A method of enhancing the sweetness of a consumable comprising a carbohydrate sweetener, comprising adding isolated rebaudioside C crystalline Form I of claim 1 or claim 2 to the consumable in an amount effective to enhance the sweetness of the consumable.

34. The method of claim 33, wherein about 0.1 to 0.5 g of isolated rebaudioside C crystalline Form I is added for every 50 to 100 g of the carbohydrate sweetener.