CLAIMS

1. A method for producing a concentrated carbonate aqueous solution, comprising

a step of dewatering a hydrogen carbonate aqueous solution by means of a salt blocking membrane to prepare a concentrated hydrogen carbonate aqueous solution, and

a step of heating the concentrated hydrogen carbonate aqueous solution obtained in the above step to thermally decompose the hydrogen carbonate into a carbonate, carbon dioxide and water, and to evaporate water to obtain a concentrate of the carbonate aqueous solution.

2. The method according to claim 1, wherein the hydrogen carbonate aqueous solution subjected for dewatering by means of the salt blocking membrane is a potassium hydrogen carbonate aqueous solution or a sodium hydrogen carbonate aqueous solution.

3. The method according to claim 1 or 2, wherein the hydrogen carbonate aqueous solution subjected for dewatering by the salt blocking membrane is 1 to 34% by weight hydrogen carbonate aqueous solution.

4. The method according to any one of claims 1 to 3, wherein the salt blocking membrane is RO membrane or NF membrane.

5. The method according to any one of claims 1 to 4, wherein the salt blocking membrane is an organic membrane.

6. The method according to any one of claims 1 to 5, wherein the hydrogen carbonate aqueous solution is a hydrogen carbonate aqueous solution obtained from a methionine production process.

7. The method according to claim 6, wherein the hydrogen carbonate aqueous solution is a hydrogen carbonate aqueous solution obtained by filtration of methionine.

8. A method for producing methionine which comprises,

1) a step of reacting 3-methylmercaptopropionaldehyde, hydrogen cyanide, ammonia and carbon dioxide or ammonium carbonate to prepare 5-(2-methylmercaptoethyl)-hydantoin;

2) a step of hydrolyzing the generated 5-(2-methylmercaptoethyl)-hydantoin with potassium carbonate and water to obtain potassium salt of methionine; and

3) a step of introducting carbon dioxide into the generated hydrolysis reaction solution to precipitate methionine,

said method further comprising,

4) a step of dewatering a potassium hydrogen carbonate aqueous solution obtained by filtering methionine from a mixture of a potassium hydrogen carbonate aqueous solution and methionine generated in the above step, using a salt blocking membrane;

5) a step of heating a membrane-concentrated potassium hydrogen carbonate aqueous solution to thermally decompose potassium hydrogen carbonate into potassium carbonate, carbon dioxide and water, and to evaporate water to obtain a concentrated aqueous solution of potassium carbonate; and

6) a step of further subjecting the resulting concentrated potassium carbonate aqueous solution to the step 2).