CLAIMS

1. An analyzing method of quantifying urea in a sample solution, the method comprising:

a pretreatment step of pretreating a sample solution with a membrane device including a reverse osmosis membrane; and

an analyzing step of quantifying urea in the pretreated sample solution,

wherein a ratio of urea in the sample solution to be removed in the membrane device is obtained in advance, and a quantitative value of urea obtained in the analyzing step is corrected by the ratio.

2. The analyzing method as claimed in claim 1, wherein an elimination rate of urea in the membrane device is 20% or less.

3. The analyzing method as claimed in claim 1 or 2, wherein a salt rejection rate of the reverse osmosis membrane is 99.0% or less with respect to sodium chloride.

4. The analyzing method as claimed in any one of claims 1 to 3, wherein a filtering process is performed on the sample solution in the pretreatment step.

5. The analyzing method as claimed in any one of claims 1 to 4, wherein, in the pretreatment step, the sample solution is passed through an ion exchange device provided in a preceding stage or a following stage of the membrane device, the ion exchange device including at least an anion exchange resin.

6. The analyzing method as claimed in any one of claims 1 to 5, wherein the analyzing step is a step of performing quantification of urea by flow injection analysis based on a colorimetric method using diacetyl monoxime, and the analyzing step comprises steps of:

injecting a certain amount of the sample solution subjected to the pretreatment step into a carrier solution being fed to a reaction coil;

adding one or more reagents to the carrier solution into which the sample solution has been injected to react with urea in the reaction coil; and

performing quantification of urea by measuring absorbance of liquid discharged from the reaction coil.

7. The analyzing method as claimed in claim 6, wherein the one or more reagents are a diacetyl monoxime-containing reagent and an antipyrine-containing reagent.

8. The analyzing method as claimed in claim 6 or 7, wherein at least one of said reagents is refrigerated after said one or more reagents are prepared.

9. An analyzing apparatus for quantifying urea in a sample solution, the analyzing apparatus comprising:

pretreatment means for pretreating a sample solution; and

analyzing means for quantifying urea in the pretreated sample solution,

wherein the pretreatment means comprises a membrane device including a reverse osmosis membrane.

10. The analyzing apparatus as claimed in claim 9, wherein an elimination rate of urea in the membrane device is 20% or less.

11. The analyzing apparatus as claimed in claim 9 or 10, wherein a salt rejection rate of the reverse osmosis membrane is 99.0% or less with respect to sodium chloride.

12. The analyzing apparatus as claimed in any one of claims 9 to 11, wherein in the pretreatment means, an ion exchange device including at least an anion exchange resin is provided in a preceding stage or a following stage of the membrane device, and the sample solution is passed through the ion exchange device.

13. The analyzing apparatus as claimed in any one of claims 9 to 12, further comprising a filter through which the sample solution passes in the pretreatment means.

14. The analyzing apparatus as claimed in any one of claims 9 to 13, wherein the analyzing means is a flow injection analyzer for quantifying urea in the sample solution by a colorimetric method using diacetyl monoxime, and the analyzing means comprises:

a reaction coil to which a carrier solution is continuously supplied;

a sampling valve for injecting a certain amount of the sample solution that has passed through the pretreatment means into the carrier solution supplied to the reaction coil;

adding means for adding one or more reagents to the carrier solution to which the sample solution has been injected at a position between the sampling valve and the reaction coil; and

a detector for measuring absorbance of liquid discharged from the reaction coil, and

wherein urea and the one or more reagents are reacted in the reaction coil.

15. The analyzing apparatus as claimed in claim 14, wherein the one or more reagents are a diacetyl monoxime-containing reagent and an antipyrine-containing reagent.

16. The analyzing apparatus as claimed in claim 14 or 15, comprising:

a reservoir for storing at least one of the reagents that have been prepared, and

cooling means for cooling the reservoir.