

WHAT IS CLAIMED IS:

1. A method for processing a chemical liquid, comprising:
providing a system comprising at least one filtration medium, selected from a filter, an ion exchange membrane, and an ion adsorption membrane;
performing a treatment process on the system using a treatment liquid having a content of iron (Fe) and calcium (Ca) limited to about 10 ppb or less; and
subsequent to the treatment process, processing a chemical liquid with the system configured in an apparatus.
2. The method of claim 1, wherein the system is configured in the apparatus after the treatment process is performed.
3. The method of claim 1, wherein the system is configured in the apparatus before the treatment process is performed.
4. The method of claim 1, wherein the treatment process comprises passing the treatment liquid through the system comprising the at least one filtration medium.
5. The method of claim 1, wherein the treatment liquid is the same as at least one organic solvent contained in the chemical liquid.
6. The method of claim 1, wherein the treatment process is performed one or more times.
7. The method of claim 1, wherein the treatment process is performed on the system comprising at least two filtration media, selected from the filter, the ion exchange membrane, and the ion adsorption membrane.

8. The method of claim 1, wherein the treatment process is performed on the system comprising one of the filter and the ion exchange membrane or the ion adsorption membrane.

9. The method of claim 1, wherein the at least one filtration medium comprises a polytetrafluoroethylene (PTFE) filter having a pore size of 50nm or less.

10. The method of claim 1, wherein the at least one filtration medium comprises a polytetrafluoroethylene (PTFE) filter having a pore size of 10nm or less.

11. The method of claim 1, wherein a treatment condition of the treatment process depends on a combination of the at least one first filtration medium and the treatment liquid.

12. The method of claim 1, wherein the processing of the chemical liquid comprises a purification process.

13. The method of claim 1, wherein the treatment process comprises soaking the at least one filtration medium in a liquid, which is a same type as the treatment liquid, for at least a soaking period of about 12 to 18 hours prior to passing the treatment liquid through the system comprising the at least one filtration medium, and there are at most five soaking periods.

14. A method for purifying a chemical liquid, comprising:

providing a first purification system comprising at least one first filtration medium, selected from a first filter, a first ion exchange membrane, and a first ion adsorption membrane;

performing a purification process on a chemical liquid with the first purification system configured in a production apparatus; and

applying a first treatment liquid to the at least one first filtration medium before the purification process is performed, wherein a content of iron (Fe) atoms and calcium (Ca) in the first treatment liquid is less than about 10 ppb.

15. The method of claim 14, wherein the step of applying the first treatment liquid comprises flushing the first treatment liquid into the first purification system.

16. The method of claim 14 further comprising:

providing a second purification system comprising at least one second filtration medium, selected from a second filter, a second ion exchange membrane, and a second ion adsorption membrane; and

applying a second treatment liquid to the at least one second filtration medium before the purification process is performed, wherein a content of iron (Fe) and calcium (Ca) in the second treatment liquid is less than about 10 ppb.

17. The method of claim 16, wherein the step of applying the second treatment liquid comprises flushing the second treatment liquid into the second purification system.

18. The method of claim 16, wherein the purification process is performed on the chemical liquid with the second purification system configured in the production apparatus.

19. The method of claim 16, wherein the first purification system and the second purification are configured in the production apparatus after the steps of applying the first treatment liquid and the second treatment liquid.

20. The method of claim 16, wherein the first purification system and the second purification are configured in the production apparatus before the steps of applying the first treatment liquid and the second treatment liquid.

21. The method of claim 16, wherein the step of applying the first treatment liquid and the step of applying the second treatment liquid are respectively performed once.

22. The method of claim 16, wherein a number of times of applying the first treatment liquid is different from a number of times of applying the second treatment liquid.