

WHAT IS CLAIMED IS:

1. A chemical liquid manufacturing apparatus, comprising:

a first system configured to process a material, the first system comprising at least one first filtration medium, selected from a first filter, a first ion exchange membrane and a first ion adsorption membrane, wherein the first system is configured to process the material of at least one time; and

a second system configured to process the material, the second system comprising at least one second filtration medium, selected from a second filter, a second ion exchange membrane and a second ion adsorption membrane, wherein the second system is configured for a recirculation and to process the material of at least two times.

2. The chemical liquid manufacturing apparatus of claim 1, wherein the first system is positioned at an upstream side of the second system, and the material is processed by the first system before being processed by the second system.

3. The chemical liquid manufacturing apparatus of claim 1, wherein the first system is configured for a single pass.

4. The chemical liquid manufacturing apparatus of claim 1, wherein the at least one second filtration medium comprises the second filter, and the second filter is a pure sieving filter having a pore size of the second filter is about 10nm or less.

5. The chemical liquid manufacturing apparatus of claim 1, wherein the at least one first filtration medium comprises the first filter, and a pore size of the first filter is about 50nm or more.

6. The chemical liquid manufacturing apparatus of claim 1, wherein the at least one first filtration medium comprises the first filter, and a pore size of the first filter is about 15nm or more.

7. The chemical liquid manufacturing apparatus of claim 1 comprising the first ion exchange membrane or the first ion adsorption membrane.

8. The chemical liquid manufacturing apparatus of claim 1 further comprising an online particle counter.

9. A chemical liquid manufacturing apparatus for processing a material, comprising:

a first system comprising at least one first filtration medium, selected from at least one first filter, a first ion exchange membrane and a first ion adsorption membrane, wherein the first system is configured to process the material of at least one time; and

a second system comprising at least one second filtration medium, selected from at least one second filter, a second ion exchange membrane and a second ion adsorption membrane, wherein the second system is configured for a recirculation and to process the material of at least two times.

10. The chemical liquid manufacturing apparatus of claim 9, wherein the at least one first filter comprises two first filters, and the two first filters have different properties.

11. The chemical liquid manufacturing apparatus of claim 10, wherein the two first filters are different in at least one of a pore size and a construction material.

12. The chemical liquid manufacturing apparatus of claim 11, wherein one of the two first filters has a pore size of about 50nm or more.

13. The chemical liquid manufacturing apparatus of claim 11, wherein one of the two first filters has a pore size of about 10nm or less.

14. The chemical liquid manufacturing apparatus of claim 9, wherein the at least one second filter comprises two second filters, and the two second filters have different properties.

15. The chemical liquid manufacturing apparatus of claim 14, wherein the two second filters are different in at least one of a pore size and a construction material.

16. The chemical liquid manufacturing apparatus of claim 14, wherein at least one of the two second filters is a pure sieving filter having a pore size of about 10nm or less.

17. The chemical liquid manufacturing apparatus of claim 9, wherein the first system is positioned at an upstream side of the second system.

18. The chemical liquid manufacturing apparatus of claim 9, wherein the first system is configured for a single pass.

19. The chemical liquid manufacturing apparatus of claim 9 comprising the first ion exchange membrane or the first ion adsorption membrane.

20. A chemical liquid manufacturing, comprising:

a first system comprising one or plural first purification media, and when the first system comprising the plural first purification media, at least two of the plural first purification media being different in function, pore size or material; and

a second system comprising one or plural second purification media, and when the second system comprising the plural second purification media, at least two of the plural second purification media being different in function, pore size or material,

wherein the first system is configured for processing a material of at least one time and the second system is configured for a recirculation and to process the material of at least two times.

21. The chemical liquid manufacturing apparatus according to claim 21, wherein the one or plural first purification media is selected from a filter, an ion exchange membrane and an ion adsorption membrane.

22. The chemical liquid manufacturing apparatus according to claim 22, wherein the one or plural second purification media is selected from a filter, an ion exchange membrane and an ion adsorption membrane.