WHAT IS CLAIMED IS:

1. An ultrafine bubble generating method comprising:

a generating step of generating ultrafine bubbles smaller than 1.0 μm in diameter by causing a heating element provided in a liquid to generate heat to generate film boiling on an interface between the liquid and the heating element ; and

a post-processing step of performing predetermined post-processing on an ultrafine bubble-containing liquid containing the ultrafine bubbles generated in the generating step, and

wherein the post-processing step includes first processing for removing an inorganic ion by using a cation exchange resin.

2. The ultrafine bubble generating method according to claim 1, wherein

the inorganic ion to be removed by the first processing contains a metal forming the heating element.

3. The ultrafine bubble generating method according to claim 2, wherein

the inorganic ion removed by the first processing contains at least one selected from Si, AL, W, Pt, Pd, Ta, Fe, Cr, Ni, Ir, and Ru.

4. The ultrafine bubble generating method according to any one of claims 2 to 3, wherein

the removal processing includes second processing for removing an organic substance by using a filtration filter.

5. The ultrafine bubble generating method according to claim 4, wherein

the organic substance to be removed by the second processing contains at least one selected from an organic compound containing silicon, siloxane, epoxy, and

bacteria.

6. The ultrafine bubble generating method according to any one of claims 2 to 5, wherein

the removal processing includes third processing for removing an insoluble solid substance by using the precipitation characteristics of the insoluble solid substance.

7. The ultrafine bubble generating method according to any one of claims 1 to 6, wherein

the post-processing step includes increasing processing for increasing a concentration of the ultrafine bubbles contained in the ultrafine bubble-containing liquid.

8. The ultrafine bubble generating method according to claim 7, wherein

in the increasing processing, the concentration of the contained ultrafine bubbles is increased by generating ultrasound in the ultrafine bubble-containing liquid.

9. The ultrafine bubble generating method according to claim 7, wherein

in the increasing processing, the concentration of the contained ultrafine bubbles is increased by applying focused ultrasound to the ultrafine bubble-containing liquid.

10. The ultrafine bubble generating method according to any one of claims 1 to 9, further comprising:

a dissolving step of dissolving any one of hydrogen, helium, oxygen, nitrogen, methane, fluorine, neon, carbon dioxide, ozone, argon, chlorine, ethane, propane, air,

and a mixed gas containing these into the liquid to be supplied in the generating step, wherein

in the generating step, ultrafine bubbles containing in the inside thereof the gas that is dissolved in the dissolving step are generated.

11. The ultrafine bubble generating method according to any one of claims 1 to 10, wherein

the generating step is performed again after the post-processing step is performed.

12. The ultrafine bubble generating method according to any one of claims 1 to 11 further comprising:

a step of collecting the ultrafine bubble-containing liquid processed in the post-processing step.

13. An ultrafine bubble generating apparatus comprising:

a generating unit configured to generate ultrafine bubbles smaller than 1.0 μm in diameter by causing a heating element provided in a liquid to generate heat to generate film boiling on an interface between the liquid and the heating element; and

a post-processing unit configured to perform predetermined post-processing on an ultrafine bubble-containing liquid containing the ultrafine bubbles generated by the generating unit, and

wherein the post-processing unit includes a removal unit including a first unit that removes an inorganic ion by using a cation exchange resin.

14. The ultrafine bubble generating apparatus according to claim 13, wherein

the inorganic ion to be removed by the first unit contains a metal forming the

heating element.

15. The ultrafine bubble generating apparatus according to claim 14, wherein

the inorganic ion removed by the first unit contains at least one selected from Si, AL, W, Pt, Pd, Ta, Fe, Cr, Ni, Ir, and Ru.

16. The ultrafine bubble generating apparatus according to any one of claims 13 to 15, wherein

the removal unit includes a second unit that removes an organic substance by using a filtration filter.

17. The ultrafine bubble generating apparatus according to claim 16, wherein

the organic substance to be removed by the second unit contains at least one selected from an organic compound containing silicon, siloxane, epoxy, and bacteria.

18. The ultrafine bubble generating apparatus according to any one of claims 13 to 17, wherein

the filtration filter has a mesh diameter of 1 μm or smaller.

19. The ultrafine bubble generating apparatus according to any one of claims 13 to 17, wherein

the removal unit includes a third unit that removes an insoluble solid substance by using the precipitation characteristics of the insoluble solid substance.

20. The ultrafine bubble generating apparatus according to any one of claims 13 to 18, wherein

the post-processing unit includes an increasing processing unit that increases a

concentration of the ultrafine bubbles contained in the ultrafine bubble-containing liquid.

21. The ultrafine bubble generating apparatus according to claim 20, wherein

the increasing processing unit increases the concentration of the contained ultrafine bubbles by generating ultrasound in the ultrafine bubble-containing liquid.

22. The ultrafine bubble generating apparatus according to claim 20, wherein

the increasing processing unit increases the concentration of the contained ultrafine bubbles by applying focused ultrasound to the ultrafine bubble-containing liquid.

23. The ultrafine bubble generating apparatus according to any one of claims 13 to 21, further comprising:

a dissolving unit that dissolves any one of hydrogen, helium, oxygen, nitrogen, methane, fluorine, neon, carbon dioxide, ozone, argon, chlorine, ethane, propane, air, and a mixed gas containing these into the liquid to be supplied to the generating unit, wherein

the generating unit generates ultrafine bubbles containing in the inside thereof the gas that is dissolved by the dissolving unit.

24. The ultrafine bubble generating apparatus according to any one of claims 13 to 22, further comprising:

a circulation route through which the liquid processed by the post-processing unit is supplied to the generating unit.

25. The ultrafine bubble generating apparatus according to any one of claims 13 to

23, further comprising:

a unit that collects the ultrafine bubble-containing liquid processed by the post-processing unit.