WHAT IS CLAIMED IS:

1. An ultrafine bubble generating apparatus configured to generate ultrafine bubbles with diameters below 1.0 μm by bringing a liquid into film boiling, comprising:

a detection unit configured to detect generation of the film boiling, and

a collecting unit configured to collect the generated ultrafine bubbles.

2. The ultrafine bubble generating apparatus according to claim 1, further comprising:

a heater configured to generate the film boiling, wherein

the detection unit includes a sensor located near the heater.

3. The ultrafine bubble generating apparatus according to claim 2, further comprising:

a substrate including a plurality of the heaters, wherein

the sensor is consist of a plurality of sensors, and the plurality of sensors are arranged at positions on the substrate corresponding to the plurality of the heaters, respectively.

4. The ultrafine bubble generating apparatus according to claim 2, further comprising:

a substrate including a plurality of the heaters, wherein

the sensor is consist of a plurality of sensors, and

the plurality of sensors are arranged at positions on the substrate between the plurality of the heaters.

5. The ultrafine bubble generating apparatus according to any one of claims 2 to 4, wherein the sensor is arranged on an opposite side of a side where the liquid is present relative to the heater.

6. The ultrafine bubble generating apparatus according to any one of claims 2 to 4, wherein the sensor is arranged at a position opposed to the heater while interposing the liquid in between.

7. The ultrafine bubble generating apparatus according to any one of claims 2 to 6, wherein the detection unit detects generation of the film boiling by causing the sensor to detect a temperature attributed to heat generation by the heater.

8. The ultrafine bubble generating apparatus according to claim 7, wherein the detection unit detects generation of the film boiling by obtaining a singularity on a profile indicating temperatures at respective time points of the detection.

9. The ultrafine bubble generating apparatus according to any one of claims 2 to 6, wherein the detection unit detects generation of the film boiling by causing the sensor to detect a pressure.

10. The ultrafine bubble generating apparatus according to claim 9, wherein the detection unit detects the pressure by using a sound wave.

11. The ultrafine bubble generating apparatus according to claim 9 or 10, wherein the detection unit detects generation of the film boiling by obtaining a singularity on a profile indicating the pressures at respective time points detected with the sensor.

12. The ultrafine bubble generating apparatus according to any one of claims 2 to 11, further comprising:

a control unit configured to derive information on energy at time of generation of the film boiling detected by the detection unit and to control energy to be inputted to the heater based on the information, wherein

the energy to be inputted to the heater is larger than the energy at the time of generation of the film boiling detected by the detection unit and smaller than 3 times of the energy at the time of generation of the film boiling.

13. The ultrafine bubble generating apparatus according to any one of claims 2 to 11, further comprising:

a control unit configured to drive information on energy at time of generation of the film boiling detected by the detection unit and to control energy to be inputted to the heater based on the information, wherein

the energy to be inputted to the heater is larger than the energy at the time of generation of the film boiling detected by the detection unit and smaller than 1.3 times of the energy at the time of generation of the film boiling.