WHAT IS CLAIMED IS:

1. A method of cleaning a substrate for a blank mask comprising:

a first cleaning including irradiating a cleaning target substrate with a pre-treatment light to prepare a substrate cleaned with light; and

a second cleaning including applying a first cleaning solution and a post-treatment light to the substrate cleaned with light to prepare the substrate for the blank mask, and

wherein the cleaning target substrate is disposed in an atmosphere, where an exhaust pressure of 0.01 kPa to 1 kPa is applied.

2. The method of claim 1, wherein the pre-treatment light is a light with a wavelength of 50 nm to 300 nm.

3. The method of claim 1, wherein the post-treatment light is a light with wavelength of 50 nm to 450 nm.

4. The method of claim 1, wherein an intensity of the pre-treatment light is 25 mW/cm^2 or more.

5. The method of claim 1, wherein the cleaning target substrate is irradiated with the pre-treatment light from two or more light sources.

6. The method of claim 5, wherein a UI (Uniform Intensity) value of the pre-treatment light from the two or more light sources according to Equation 1 below is 20 % or less:

[Equation 1]

$$UI(\%) = \frac{I_{max} - I_{min}}{I_{max} + I_{min}} \times 100$$

where, in Equation 1, I_{max} is a maximum intensity among intensities of the pre-treatment light from the two or more light sources and I_{min} is a minimum intensity among intensities of the pre-treatment light from the two or more light sources.

7. The method of claim 1, wherein the first cleaning is performed in a depressurizing atmosphere.

8. The method of claim 1, wherein the first cleaning solution comprises at least one selected from the group consisting of SC-1 (Standard Clean-1) solution, ozone water, ultrapure water, hydrogen water, and carbonated water.

9. The method of claim 8, wherein the SC-1 solution is a solution comprising NH_4OH, H_2O_2, and H_2O.

10. The method of claim 1, wherein the substrate cleaned with light is one, from which some or all of compounds absorbing a light with a wavelength of 100 to 190 nm are removed.

11. The method of claim 1, wherein the first cleaning solution comprises a hydroxyl radical precursor.

12. The method of claim 11, wherein the hydroxyl radical is formed when the first cleaning solution is applied and the post-treatment light is irradiated on the substrate cleaned with light.

13. The method of claim 1, wherein the substrate for the blank mask comprises a sulfuric acid ion in an amount of 0 ng/cm^2 to 0.1 ng/cm^2, a nitric acid ion in an amount of 0 ng/cm^2 to 0.4 ng/cm^2, a nitrous acid ion in an amount of 0 ng/cm^2 to 0.05 ng/cm^2, and an ammonium ion in an amount of 0 ng/cm^2 to 1.5 ng/cm^2, as residual ions measured by an ion chromatography.

14. The method of claim 1, wherein the PRE (Particle Removal Efficiency) value of the substrate for the blank mask is 90 % or more according to Equation 2 below:

[Equation 2]

$$PRE(\%) = \frac{P_b - P_a}{P_b} \times 100$$

where, in Equation 2, P_b is a number of particles measured at the cleaning target substrate and P_a is a number of particles measured at the substrate for the blank mask.