CLAIMS

1. A method for manufacturing a resist pattern comprising the following steps:
(1) applying a photosensitive resin composition on a substrate with or without one or more intervening layers, to form a photosensitive resin layer;
(2) exposing the photosensitive resin layer to radiation;
(3) developing the exposed photosensitive resin layer; and
(4) cleaning the developed layer with an electronic device manufacturing aqueous solution comprising:

an alkylcarboxylic acid compound (A); and

a solvent (B),

wherein

the alkylcarboxylic acid compound (A) is represented by the formula (a):

A_1-COOH (a)

where A_1 is C_{4-12} alkyl, A_1 is linear or branched C_{5-10} alkyl, and

where the solvent (B) comprises water.

2. The method of claim 1, wherein the electronic device manufacturing aqueous solution further comprises a hydroxy-containing compound (C).

3. The method of claim 2,

wherein the content of the alkylcarboxylic acid compound (A) is 0.01 to 10 mass %, based on the electronic device manufacturing aqueous solution: and

wherein:

the content of the solvent (B) is 80 to 99.99 mass %, based on the electronic device manufacturing aqueous solution;

the content of water contained in the solvent (B) is 80 to 99.99 mass %, based on the electronic device manufacturing aqueous solution; or

the content of the hydroxy-containing compound (C) is 0.001 to 10 mass %, based on the electronic device manufacturing aqueous solution.

4. The method of any one of claims 1 to 3, wherein the electronic device manufacturing aqueous solution further comprises a surfactant (D).

5. The method of claim 4,

wherein the electronic device manufacturing aqueous solution further comprises an additive (E); and

wherein:

the additive (E) comprises an acid, a base, a germicide, an antibacterial agent, a preservative, a fungicide, or any combination of any of these;

the additive (E) comprises a base;

the content of the surfactant (D) is 0.01 to 5 mass %, based on the electronic device manufacturing aqueous solution; or

the content of the additive (E) is 0.0001 to 10 mass %, based on the electronic device manufacturing aqueous solution.

6. The method of any one of claims 1 to 5, wherein the electronic device manufacturing aqueous solution comprises:

a semiconductor substrate manufacturing aqueous solution;

a semiconductor substrate manufacturing process cleaning liquid;

a lithography cleaning liquid; or

a resist pattern cleaning liquid.

7. The method of any one of the preceding claims,

wherein the photosensitive resin composition is a chemically amplified photosensitive resin composition; and

wherein the step of exposing the photosensitive resin

layer to radiation is performed using extreme ultraviolet ray.

8. The method of any one of the preceding claims, wherein a minimum space size of the resist pattern in one circuit unit is in the range of 10 to 30 nm.

9. The method of any one of the preceding claims, wherein the method further comprises the steps of:

etching the resist pattern as a mask; and

processing the substrate to create a processed substrate.

10. The method of claim 9, wherein the method further comprises forming a wiring on the processed substrate.