

CLAIMS

1. A composition for drying an uneven pattern comprising:
a sublimable substance; and
5 a solvent whose boiling point at 1 atm is lower than a boiling point or a sublimation point of the sublimable substance by 5°C or more and whose boiling point at 1 atm is 75°C or lower,
wherein the sublimable substance is dissolved in the solvent.
- 10 2. The composition for drying an uneven pattern according to claim 1,
wherein a freezing point of the sublimable substance at 1 atm is 5°C or higher.
- 15 3. The composition for drying an uneven pattern according to claim 1 or 2,
wherein the boiling point or the sublimation point of the sublimable substance is 300°C or lower.
- 20 4. The composition for drying an uneven pattern according to any one of claims 1 to 3,
wherein the sublimable substance includes one or two or more selected from the group consisting of a fluoroalkane having 3 to 6 carbon atoms, a fluorocycloalkane having 3 to 6 carbon atoms, a
25 compound in which a hydrogen atom of the fluoroalkane is replaced by a chlorine atom, and a compound in which a hydrogen atom of the fluorocycloalkane is replaced by a chlorine atom.

5. The composition for drying an uneven pattern according to any one of claims 1 to 3,

wherein the sublimable substance includes one or two or more
5 selected from the group consisting of naphthalene,
1,1,2,2,3,3,4-heptafluorocyclopentane,
1,1-dichlorooctafluorocyclopentane,
1,1,2,2,3,3,4,4-octafluorocyclohexane, perfluorocyclohexane,
camphor, dimethyl oxalate, neopentyl alcohol,
10 tetrahydrodicyclopentadiene, and pyrazine.

6. The composition for drying an uneven pattern according to claim 5,

wherein the sublimable substance includes
15 1,1,2,2,3,3,4-heptafluorocyclopentane.

7. The composition for drying an uneven pattern according to any one of claims 1 to 6,

wherein a content of the sublimable substance is 1% by mass or
20 more and 80% by mass or less with respect to a total mass of the composition for drying an uneven pattern.

8. The composition for drying an uneven pattern according to any one of claims 1 to 7,

25 wherein the solvent includes one or two or more selected from the group consisting of hydrocarbons which may have at least one of fluorine atoms and chlorine atoms, ethers which may have at least

one of fluorine atoms and chlorine atoms, alcohols which may have at least one of fluorine atoms and chlorine atoms, and esters.

9. The composition for drying an uneven pattern according to claim
5 8,

wherein the solvent includes one or two or more selected from the group consisting of hexane,
trans-1-chloro-3,3,3-trifluoropropene,
cis-1-chloro-3,3,3-trifluoropropene, diethyl ether,
10 tetrahydrofuran, 1,1,1,3,3,3-hexafluoro-2-methoxypropane,
1,1,1,2,2,3,3,4,4-nonafluorobutyl methyl ether, 3-methyl pentane,
cyclopentane, and methyl acetate.

10. The composition for drying an uneven pattern according to any
15 one of claims 1 to 9,

wherein the composition is used for treating a substrate having an uneven pattern with a pattern dimension of 30 nm or less.

11. The composition for drying an uneven pattern according to claim
20 10,

wherein the composition is used for treating the substrate having an uneven pattern with a pattern dimension of 20 nm or less.

12. A method for manufacturing a substrate having an uneven pattern
25 on a surface, the method comprising:

a step (I) in which, a composition for drying which contains a sublimable substance and a solvent whose boiling point at 1 atm

is lower than a boiling point or a sublimation point of the sublimable substance by 5°C or more and whose boiling point at 1 atm is 75°C or lower wherein the sublimable substance is dissolved in the solvent, is supplied, in a solution state, to a recessed portion of the uneven
5 pattern;

a step (II) in which the solvent in the recessed portion is dried and the sublimable substance is coagulated; and

a step (III) of sublimating the sublimable substance.

10 13. The method for manufacturing a substrate having an uneven pattern on a surface according to claim 12, further comprising:

a step of purifying the sublimable substance before step (I).

14. The method for manufacturing a substrate having an uneven pattern
15 on a surface according to claim 12 or 13,

wherein the substrate has the uneven pattern with a pattern dimension of 30 nm or less on the surface.

15. The method for manufacturing a substrate having an uneven pattern
20 on a surface according to claim 14,

wherein the substrate has the uneven pattern with a pattern dimension of 20 nm or less on the surface.