CLAIMS

[Claim 1]

A method for dehydrating a composition containing a fluorine-based hydrocarbon compound,

wherein the fluorine-based hydrocarbon compound ~~is at least one compound selected from the group consisting of~~contains 1,1,1,2-tetrafluoroethane (HFC-134a), ~~1,1,1,2,2-pentafluoroethane (HFC-125), difluoromethane (HFC-32), and 2,3,3,3-tetrafluoropropene (HFO-1234yf),~~

the method comprising the step of bringing the composition containing the fluorine-based hydrocarbon compound into contact with a zeolite having a ratio of silica to alumina (SiO_2/Al_2O_3) of 5 or more.

[Claim 2]

A method for dehydrating a composition containing a fluorine-based hydrocarbon compound,

wherein the fluorine-based hydrocarbon compound ~~is at least one compound selected from the group consisting of~~ contains 1,1,1,2-tetrafluoroethane (HFC-134a), ~~1,1,1,2,2-pentafluoroethane (HFC-125), difluoromethane (HFC-32), and 2,3,3,3-tetrafluoropropene (HFO-1234yf),~~

the method comprising the step of bringing the composition containing the fluorine-based hydrocarbon compound into contact with at least one zeolite selected from the group consisting of chabazite zeolite, mordenite zeolite, beta zeolite, and zeolite Y.

[Claim 3]

The dehydration method according to claim 1 or 2, wherein the composition after dehydration in the step has a moisture content of less than 3 ppmwt.

[Claim 4]

The dehydration method according to any one of claims 1

to 3, further comprising the step of bringing the composition containing the fluorine-based hydrocarbon compound into contact with the zeolite to remove 1,1,2,2-tetrafluoroethane (HFC-134).

[Claim 5]

A method for producing a composition containing a fluorine-based hydrocarbon compound,

wherein the fluorine-based hydrocarbon compound ~~is at least one compound selected from the group consisting of~~ contains 1,1,1,2-tetrafluoroethane (HFC-134a), ~~1,1,1,2,2-pentafluoroethane (HFC-125), difluoromethane (HFC-32), and 2,3,3,3-tetrafluoropropene (HFO-1234yf),~~

the method comprising the step of bringing a composition containing the fluorine-based hydrocarbon compound into contact with a zeolite having a ratio of silica to alumina (SiO_2/Al_2O_3) of 5 or more.

[Claim 6]

A method for producing a composition containing a fluorine-based hydrocarbon compound,

wherein the fluorine-based hydrocarbon compound ~~is at least one compound selected from the group consisting of~~ contains 1,1,1,2-tetrafluoroethane (HFC-134a), ~~1,1,1,2,2-pentafluoroethane (HFC-125), difluoromethane (HFC-32), and 2,3,3,3-tetrafluoropropene (HFO-1234yf),~~

the method comprising the step of bringing a composition containing the fluorine-based hydrocarbon compound into contact with at least one zeolite selected from the group consisting of chabazite zeolite, mordenite zeolite, beta zeolite, and zeolite Y.

[Claim 7]

The production method according to claim 5 or 6, wherein the composition after coming in contact with the zeolite has a moisture content of less than 3 ppmwt.

[Claim 8]

The production method according to any one of claims 5 to 7, further comprising the step of bringing the composition containing the fluorine-based hydrocarbon compound into contact with the zeolite to remove 1,1,2,2-tetrafluoroethane (HFC-134).

[Claim 9]

A method for producing a high-purity fluorine-based hydrocarbon compound, the method comprising the step of bringing a composition containing ~~at least one~~ a fluorine-based hydrocarbon compound ~~selected from the group consisting of~~ containing 1,1,1,2-tetrafluoroethane (HFC-134a)~~, 1,1,1,2,2-pentafluoroethane (HFC-125), difluoromethane (HFC-32), and 2,3,3,3-tetrafluoropropene (HFO-1234yf)~~ into contact with a zeolite having a ratio of silica to alumina (SiO_2/Al_2O_3) of 5 or more to remove an impurity contained in the fluorine-based hydrocarbon compound.

[Claim 10]

A method for producing a high-purity fluorine-based hydrocarbon compound, the method comprising the step of bringing a composition containing ~~at least one~~ a fluorine-based hydrocarbon compound ~~selected from the group consisting of~~ containing 1,1,1,2-tetrafluoroethane (HFC-134a)~~, 1,1,1,2,2-pentafluoroethane (HFC-125), difluoromethane (HFC-32), and 2,3,3,3-tetrafluoropropene (HFO-1234yf)~~ into contact with at least one zeolite selected from the group consisting of chabazite zeolite, mordenite zeolite, beta zeolite, and zeolite Y to remove an impurity contained in the fluorine-based hydrocarbon compound.

[Claim 11]

The production method according to claim 9 or 10, wherein the impurity is at least one component selected from the group consisting of water and 1,1,2,2-tetrafluoroethane (HFC-

134).

[Claim 12]

The production method according to any one of claims 9 to 11, wherein the water concentration of the fluorine-based hydrocarbon compound after impurity removal is a moisture content of less than 3 ppmwt.

[Claim 13]

A composition containing a fluorine-based hydrocarbon compound,

wherein the fluorine-based hydrocarbon compound contains at least one compound selected from the group consisting of 1,1,1,2-tetrafluoroethane (HFC-134a), 1,1,1,2,2-pentafluoroethane (HFC-125), ~~difluoromethane (HFC-32),~~ and 2,3,3,3-tetrafluoropropene (HFO-1234yf), and

wherein the ~~moisture content is less than 3 ppmwt or/and the~~ HFC-134 content is at least 0.1 ppmwt, and less than 3 ppmwt.

[Claim 14]

The composition according to claim 13, which is for use in etching gas, refrigerants, heat-transfer mediums, deposit gas, building blocks for organic synthesis, or cleaning gas.