CLAIMS

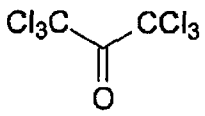
[Claim 1]

A method for producing a carbonate compound comprising:

a first step of reacting a compound represented by the following Formula (1) with a compound represented by the following Formula (21) or a compound represented by the following Formula (22) to obtain a reaction mixture containing a carbonate compound, and

a second step of bringing the reaction mixture containing a carbonate compound into contact with a strongly basic compound,

[Chem. 1]



(1)

$R^1—OH$ (21)

$HO—R^2—OH$ (22)

wherein R^1 represents a monovalent organic group, and R^2 represents a divalent organic group.

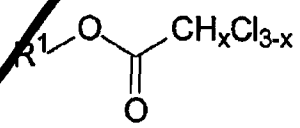
[Claim 2]

The method for producing a carbonate compound according to Claim 1,

wherein the reaction mixture contains a compound represented by the following Formula (41) or a compound represented by the following Formula (42), and

in the second step, the reaction mixture is brought into contact with the strongly basic compound to decompose the compound represented by the following Formula (41) or the compound represented by the following Formula (42),

[Chem. 2]



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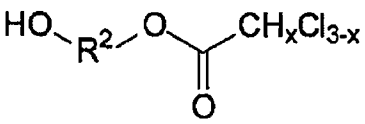


(42)

wherein x represents an integer of 0 to 2.

[Claim 3]

The method for producing a carbonate compound according to Claim 1 or 2 that obtains a carbonate compound in which a total content of the compounds represented by Formula (41) and the compounds represented by Formula (42) is 5 ppm or less based on the total amount of the carbonate compound.

[Claim 4]

The method for producing a carbonate compound according to any one of Claims 1 to 3,

wherein R^1 represents a monovalent aliphatic hydrocarbon group having 1 to 10 carbon atoms, and R^2 represents a divalent aliphatic hydrocarbon group having 1 to 10 carbon atoms.

[Claim 5]

The method for producing a carbonate compound according to any one of Claims 1 to 4,

wherein in the second step, the reaction mixture is brought into contact with the strongly basic compound in the presence of an alcohol.

[Claim 6]

The method for producing a carbonate compound according to any one of Claims 1 to 5,

wherein the strongly basic compound is a salt of a base of which a conjugate acid has a pKa of 11 or higher and an alkali metal ion or an alkaline earth metal ion.

[Claim 7]

The method for producing a carbonate compound according Claim 6,

wherein the strongly basic compound is a hydroxide or an alkoxide of an alkali metal or a hydroxide or an alkoxide of an alkaline earth metal.

[Claim 8]

The method for producing a carbonate compound according to any one of Claims 1 to 7,

wherein in the first step, the compound represented by Formula (1) is reacted with the compound represented by Formula (21) or the compounds represented by Formula (22) in the presence of the following catalyst for synthesizing a carbonate compound:

the catalyst for synthesizing a carbonate compound: one or more kinds selected from the group consisting of a weakly basic compound, a phase transfer catalyst, an ion exchange resin, and a compound or oxide of one or more kinds of metals selected from the group consisting of tin, titanium, aluminum, tungsten, molybdenum, zirconium, and zinc.

[Claim 9]

A method for producing diphenyl carbonate, comprising:

preparing a carbonate compound by the method for producing a carbonate compound described in any one of Claims 1 to 8, and

causing an ester exchange reaction between the obtained carbonate compound and phenol.

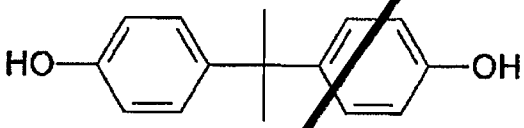
[Claim 10]

A method for producing an aromatic polycarbonate, comprising:

preparing a diphenyl carbonate by the production method described in Claim 9, and

reacting the obtained diphenyl carbonate with a compound represented by the following Formula (6) in the presence of a catalyst for synthesizing a polycarbonate.

[Chem. 3]

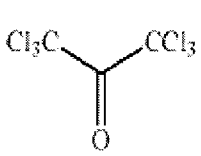


(6)

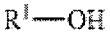
The invention claimed is:

1. A method for producing a carbonate compound comprising: a first step of reacting a compound represented by the following Formula (1) with a compound represented by the following Formula (21) or a compound represented by the following Formula (22) to obtain a reaction mixture containing a carbonate compound, and a second step of bringing the reaction mixture containing a carbonate compound into contact with a strongly basic compound,

[Chem. 1]



(1)



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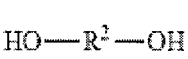
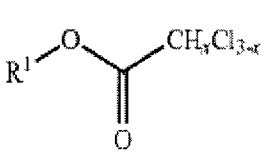


(22)

wherein R^1 represents a monovalent organic group, and R^2 represents a divalent organic group, wherein

the reaction mixture comprising a compound represented by the following Formula (41) or a compound represented by the following Formula (42), and in the second step, the reaction mixture is brought into contact with the strongly basic compound to decompose the compound represented by the following Formula (41) or the compound represented by the following formula (42),

[Chem. 2]



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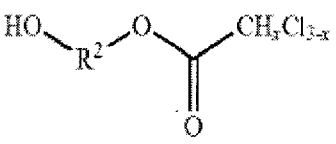

(42)

wherein x represents an integer of 0 to 2, and

the method obtains a carbonate compound in which a total content of the compounds represented by Formula (41) and the compounds represented by Formula (42) is 5 ppm or less based on the total amount of the carbonate compound, and

wherein the strongly basic compound is a salt of a base of which a conjugate acid has a pKa of 11 or higher and an alkali metal ion or an alkaline earth metal ion.

2. The method for producing a carbonate compound according to claim **1**, wherein R^1 represents a monovalent aliphatic hydrocarbon group having 1 to 10 carbon atoms, and R^2 represents a divalent aliphatic hydrocarbon group having 1 to 10 carbon atoms.

3. The method for producing a carbonate compound according to claim **1**, wherein in the second step, the reaction mixture is brought into contact with the strongly basic compound in the presence of an alcohol.

4. The method for producing a carbonate compound according claim **1**, wherein the strongly basic compound is a hydroxide or an alkoxide of an alkali metal or a hydroxide or an alkoxide of an alkaline earth metal.

5. The method for producing a carbonate compound according to claim **1**, wherein in the first step, the compound represented by Formula (1) is reacted with the compound represented by Formula (21) or the compounds represented by Formula (22) in the presence of the following catalyst for synthesizing a carbonate compound: the catalyst for synthesizing a carbonate compound: one or more kinds selected from the group consisting of a weakly basic compound, a phase transfer catalyst, an ion exchange resin, and a compound or oxide of one or more kinds of metals selected from the group consisting of tin, titanium, aluminum, tungsten, molybdenum, zirconium, and zinc.

6. A method for producing diphenyl carbonate, comprising: preparing a carbonate compound by the method for producing a carbonate compound described in claim **1**, and causing an ester exchange reaction between the obtained carbonate compound and phenol.

7. A method for producing an aromatic polycarbonate, comprising: preparing a diphenyl carbonate by the production method described in claim **6**, and reacting the obtained diphenyl carbonate with a compound represented by the following Formula (6) in the presence of a catalyst for synthesizing a polycarbonate

[Chem. 3]

(6)

