What is claimed is:

1. A method for producing a catalyst for producing methacrylic acid through gas-phase catalytic oxidation of methacrolein with molecular oxygen, the catalyst containing molybdenum and phosphorus as catalyst components, the method comprising the steps of:

(1) adding organic binder (B1) to a mixture solution or slurry containing raw material compounds for said catalyst components followed by drying the resulting mixture;

(2) kneading thus obtained dried materials, a liquid, and organic binder (B2); and

(3) subjecting thus obtained kneaded materials to extrusion molding.

2. The method for producing a catalyst for producing methacrylic acid according to claim 1, wherein both the aforementioned binders (B1) and (B2) are selected from the group consisting of polymer compounds, α-glucan derivatives, and β-glucan derivatives.

3. The method for producing a catalyst for producing methacrylic acid according to claim 1 or 2, wherein the aforementioned binder (B1) is poorly soluble or insoluble in the aforementioned liquid and soluble in a solvent of the aforementioned mixture solution or slurry.

4. The method for producing a catalyst for producing methacrylic acid according to claim 3, wherein the aforementioned binder (B1) is selected from pullulan, polyvinyl alcohol, and methyl cellulose.

5. The method for producing a catalyst for producing methacrylic acid according to any one of claims 1 to 4, wherein at least one kind of the aforementioned binder (B2) is soluble in the aforementioned liquid.

6. The method for producing a catalyst for producing methacrylic acid according to any one of claims 1 to 5, wherein the aforementioned liquid is selected from the group consisting of water and an alcohol having 1 to 4 carbon atoms.

7. The method for producing a catalyst for producing methacrylic acid according to claim 6, wherein the aforementioned liquid is an alcohol having 1 to 4 carbon atoms.

8. The method for producing a catalyst for producing methacrylic acid according to claim 7, wherein the aforementioned liquid is at least one of ethyl alcohol and propyl alcohol.

9. The method for producing a catalyst for producing methacrylic acid according to any one of claims 1 to 8, wherein a spray dryer is used in the aforementioned step (1).

10. A catalyst for producing methacrylic acid produced by the method according to any one of claims 1 to 9.

11. A method for producing methacrylic acid through gas-phase catalytic oxidation of methacrolein with molecular oxygen in the presence of the catalyst according to claim

What is claimed is:

Korean Patent Application No. 2010-7019598

1. A method for producing a catalyst for producing methacrylic acid through gas-phase catalytic oxidation of methacrolein with molecular oxygen, the catalyst containing molybdenum and phosphorus as catalyst components, the method comprising the steps of:
(1) adding organic binder (B1) to a mixture solution or slurry containing raw material compounds for said catalyst components followed by drying the resulting mixture;
(2) kneading thus obtained dried materials, a liquid, and organic binder (B2); and
(3) subjecting thus obtained kneaded materials to extrusion molding.

2. The method for producing a catalyst for producing methacrylic acid according to claim 1, wherein both the aforementioned binders (B1) and (B2) are selected from the group consisting of polymer compounds, α-glucan derivatives, and β-glucan derivatives.

3. The method for producing a catalyst for producing methacrylic acid according to claim 1, wherein the aforementioned binder (B1) is poorly soluble or insoluble in the aforementioned liquid and soluble in a solvent of the aforementioned mixture solution or slurry.

4. The method for producing a catalyst for producing methacrylic acid according to claim 3, wherein the aforementioned binder (B1) is selected from pullulan, polyvinyl alcohol, and methyl cellulose.

5. The method for producing a catalyst for producing methacrylic acid according to claim 1, wherein at least one kind of the aforementioned binder (B2) is soluble in the aforementioned liquid.

6. The method for producing a catalyst for producing methacrylic acid according to claim 1, wherein the aforementioned liquid is selected from the group consisting of water and an alcohol having 1 to 4 carbon atoms.

7. The method for producing a catalyst for producing methacrylic acid according to claim 6, wherein the aforementioned liquid is an alcohol having 1 to 4 carbon atoms.

8. The method for producing a catalyst for producing methacrylic acid according to claim

7, wherein the aforementioned liquid is at least one of ethyl alcohol and propyl alcohol.

9. The method for producing a catalyst for producing methacrylic acid according to claim 1, wherein a spray dryer is used in the aforementioned step (1).

10. A catalyst for producing methacrylic acid produced by the method according to any one of claims 1 to 9.

11. A method for producing methacrylic acid through gas-phase catalytic oxidation of methacrolein with molecular oxygen in the presence of the catalyst according to claim 10. h molecular oxygen in the presence of the catalyst according to claim 10.