#### Trial decision

### Correction No. 2015-390128

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The case of trial for correction of Japanese Patent No. 5563324 has resulted in the following trial decision.

### Conclusion

The trial of the case was groundless.

#### Reason

## No. 1 History of the procedures

The establishment of the patent right of Japanese Patent No. 5563324 in question in accordance with the inventions according to Claims 1 to 7 (hereinafter referred to as "the patent") was registered on June 20, 2014, whose patent application was filed on February 3, 2010 (Japanese Patent Application No. 2010-22200).

Then, a request for trial for correction of the case was filed on November 17, 2015, a notice of reasons for refusal of correction dated December 17, 2015 was filed, and a written opinion and reference materials 1 to 17 as attached document were submitted on February 8, 2016.

### No. 2 Object of the demand and the grounds therefor

The object of the demand for trial for correction of the case is "to request the body to approve that the description attached to the application of Patent No. 5563324 should be corrected as described in the attached corrected description". That is, the description attached to the application of the patent is requested to be corrected in accordance with the following matters of correction.

# [The matters of correction]

"EAC (ethyl acetate, 804 mL, 7.28 mol)" in paragraph [0034] in the description should be corrected to "EAC (ethyl acrylate, 804 mL, 7.28 mol)".

## No. 3 Judgment by the body

# 1. Purpose requirements

(1) The demandant of the trial alleges, in item 6. C(a) on page 1 in the written demand for trial and in "4. Closing" on page 16 in the written opinion, that the matters of correction are aimed at correcting errors in the description. It will be first examined whether or not the correction is aimed at matters prescribed in Article 126(1)(ii) of the Patent Act

In order that correction aimed at error correction in the description may be admitted, there should be an error in the description of the patent, and it should be obvious that there is an error itself or in relation to other descriptions in the description or the drawings, and in addition, the correct description should be determined as a matter obvious from the description in the description, scope of claims, or drawings originally attached to the application (hereinafter referred to as "the originally attached description, etc.").

(For example, according to a reference decision, "correction of the description or drawings, when aimed at 'error correction', shall be approved. It is understood that the 'error correction' described herein is admitted only when it is apparent on the basis of the descriptions or the drawings or the common general knowledge of a person skilled in the art that the description before correction is wrong and the description after correction is correct, and a person skilled in the art notices this to understand the object after correction." (refer to "the decision Hei 18 (Gyo-Ke) 10204 by Intellectual Property High Court Special Department))

- (2) Referring to the corrections, it cannot be immediately understood that there is an error in the description, "EAC (ethyl acetate, 804 mL, 7.28 mol)", in paragraph [0034], and the expressions of the compound name of ethyl acetate and the abbreviated name of EAC are consistent from the viewpoint of the relation between other relating descriptions about [Synthesis Example 4] in the description and FIG. 1, and thus there is not found an obvious error in the description.
- (3) The demandant of the trial alleges, on page 3 in the written demand for trial, that ethyl acrylate, not ethyl acetate, was originally intended to be described, which is apparent from the descriptions in paragraph [0034] in the description and FIG. 1, and the common general knowledge of a person skilled in the art. As the reasons therefor, the demandant of the trial states (i) the difference in carbon number when the compound (3) is transformed into the compound (4) in the scheme of [Chemical formula 14], (ii) the relation between the content and the mole number obtained based on the density and the molecular mass of ethyl acrylate, and (iii) reaction possibility between secondary alcohol and ethyl acetate, and infers that when ethyl acrylate is used, no contradiction arises or the compound (4) is generated. The demandant of the trial explains further about the above allegation in the written opinion as follows, which will be examined below.

# A. Examination on the allegation that "ethyl acetate" is an error

(a) In the statement "2. 'ethyl acetate' is an error" on pages 2 to 7 in the written opinion, after explaining that the chemical structures of the compounds (3) and (4) in [Chemical formula 14] described in paragraph [0034] in the description have no error on the ground of the verification by the NMR in the compound (5) and the consistency

between the expressions in FIG. 1 after indicating the description in paragraph [0034] in the description, the demandant of the trial concluded that it is apparent at a glance for a person skilled in the art that "ethyl acetate" is an error because the compound (4) cannot be obtained by inferring the function of the compound described in the scheme of [Chemical formula 14], inferring the type of reaction in paragraph [0034], and inferring the product of ethyl acetate based on the premise that the reaction is like the one described in paragraph [0034].

However, the possibility that the chemical structures of the compounds (3) and (4) may have an error should be considered to exist to the same degree as the error as to the compound name "ethyl acetate". Moreover, there is no reason to premise that only the compounds (3) and (4) are correctly described according to the NMR data in the compound (5).

Instead, it does not seem that a person skilled in the art naturally understands that only the description of EAC (ethyl acetate...), which is not inconsistent with descriptions of FIG. 1 and the [Chemical formula 14] in terms of expression, has an error if the person can determine that the compounds (3) and (4) have no error based on the relation between the descriptions about the compound (5) and FIG. 1. In addition, it does not seem that the person skilled in the art immediately understands that the correct description should be ethyl acrylate, which will be described later.

(b) The demandant of the trial alleges, in item d) on pages 4 to 5 in the written opinion, that EAC can be understood to react with the compound (3), and can be unambiguously determined based on the type of reaction at the paragraph [0034] that is accompanied by cutting OH-bonds, and steric structures of the compounds (3) and (4).

However, since there are no detailed descriptions about [Chemical formula 14] which specify how each element in the chemical formulae functions, whether or not the other ingredients are concerned, or whether or not the other process exists, it should be understood on the basis of the relating descriptions. Thus, it is not certain that an obvious error exists in the description even assuming that the function of each element or the mechanism of the reaction is understood by referring to reference materials 1 and 2, and that an error is understood to exist from the understanding of the mechanism of the reaction.

Further, concerning the allegation based on SN1 and SN2 relating to the mechanism of the reaction of alcohol, there are no explanations in the description about the mechanism, so the allegation made based on such a premise cannot be accepted.

(C) Next, in item e) on page 6 in the written opinion the demandant of the trial alleges that the compound (4) cannot be obtained when the reactant (EAC) is "ethyl acetate".

Then, the demandant explains that it is common general knowledge that the reaction is only a hydrolysis reaction or an ester exchange reaction based on the premise that the reaction is a nucleophilic reaction to carbonyl carbon, so that the compound (4) cannot be obtained when the ethyl acetate reacts.

However, as examined above, the demandant's allegation cannot be accepted because the allegation alleging that it is apparent at a glance for a person skilled in the art that "ethyl acetate" is an error based on the description "EAC (ethyl acetate, 804 mL, 7.28 mol)", although that error cannot be recognized at a glance, is based on the descriptions that don't explain mechanism of the reaction, referring to the reference

materials or the like that are not described associated with the descriptions in the description. In addition, the correct description that is necessary to be admitted as a correction aimed at error correction cannot be immediately determined to be ethyl acrylate.

- B. Examination on the obviousness that the reactant (EAC) is "ethyl acrylate"
- (a) The demandant of the trial explains, in "3. Obviousness that the reactant (EAC) is 'ethyl acrylate'" on pages 7 to 15 in the written opinion, that to consider that the reactant is obviously ethyl propionate or ethyl acrylate is retrosynthetic, and the oxa-Michael addition reaction had been known to a person skilled in the art before the application was filed. The demandant explains that reference material 3 is described as a prior art in the description, in which there is a description of alkylation and esterification using ethyl acrylate. The demandant explains, referring to reference materials 6 and 7 regarding the synthesis of 22-oxi-vitamine D3 analogs, that the ethyl acetate that is described at the paragraph [0034] is an error and was originally intended to be ethyl acrylate. The demandant explains, referring to reference materials 8 to 15, that the correct description is determined to be ethyl acrylate based on the relation between the content and the mole number. The demandant explains, referring to reference materials 16 and 17, that the abbreviated name of "EAC" is generally used as an abbreviated name of ethyl acrylate.

However, the demandant's allegation merely explains based on many reference materials that the relation between those reference materials is not inconsistent with the case where the ethyl acetate was interpreted as ethyl acrylate, and there is no reason why the descriptions in the description need to be interpreted referring to the reference materials in accordance with the demandant's allegation.

Thus, the above-described allegation cannot be accepted because it cannot be said that according to the descriptions a person skilled in the art can immediately understand that ethyl acetate is an error and ethyl acrylate should be correct.

Besides as stipulated in [Note] 6 of Form 29 of article 24 of regulations under the Patent Act, the statements of the description should not be replaced with statements based on other documents.

(b) The demandant of the trial alleges, in item a) on page 7 in the written opinion, that because stereochemistry of carbon atoms bonded to oxygen in the compound (3) is maintained in the compound (4), the reaction is obviously a reaction to nucleophilically attack the carbon atoms in the EAC, and thus retrosynthetically, the EAC is obviously ethyl propionate or ethyl acrylate having a leaving group at the third position.

However, while the reaction scheme of [Chemical formula 14] in paragraph [0034] indicates a summary of the reaction, and a type of mechanism of a reaction is not explained in the description, it is natural to interpret based on the description in paragraph [0034] itself, and the process is not limited only to the process written in the reaction scheme, and the mechanism of the reaction is not determined.

Therefore, despite the demandant's allegation to retrosynthetically add an interpretation to the chemical structures of the reactant, omitting that the mechanism of the reaction is a nucleophilic attack to the carbon atoms in the EAC, it cannot be said that ethyl acrylate should have been described from the viewpoint of typos when determining what should be unambiguously described.

- (c) Referring to reference materials 4 and 5, the demandant of the trial alleges, in the note of item a) on pages 8 to 9 in the written opinion, that the nucleophilic conjugate addition reaction (the oxa-Michael addition reaction) had been well known before the application was filed; however, it is unknown as to whether [Chemical formula 14] according to the description progressed in the mechanism of the nucleophilic conjugate addition reaction although the nucleophilic conjugate addition reaction had been known. Thus, the allegation about determination of errors premising that ethyl acrylate should have been described is unreasonable, and therefore cannot be accepted.
- (d) The demandant of the trial alleges, in items b) and c) on pages 9 to 12 in the written opinion, that while mentioning that reference material 3 is described as a prior art in the description, anybody would understand that ethyl acrylate, which is a reactant used in the reaction described in reference material 3, is used in the present invention, and alleges that the reaction and the conditions described in reference material 3 in which ethyl acrylate is used had been well known because reference material 6 describes an example using ethyl acrylate, an example using N, N-dimethyl acrylamide, and an example using 1-bromo-3-butene in relation to the synthesis of 22-oxi-vitamine D3 analogs, the root of N, N-dimethyl acrylamide is granted a U. S. patent in reference material 7, and reference material 3 is described in the References in reference material 6.

However, these allegations are to the effect that a person skilled in the art immediately recognizes the existence of an error and a correct description on the basis of only the document (reference material 3) described as a prior art in the description while any specific portions relating to the document are not indicated in the description, and further it is based on a process with a different starting material from the scheme of [Chemical formula 14], and besides it refers to another reference materials 6 and 7.

It can never be said that "ethyl acetate" is an error and a correct description is unambiguously determined to be "ethyl acrylate" based on the description "EAC (ethyl acetate, 804 mL, 7.28 mol)", in which an error cannot be recognized at a glance, and there is not found an obvious error in the description since the expressions of the compound name of ethyl acetate and the abbreviated name of EAC are consistent from the viewpoint of the relation between other relating descriptions about [Synthesis Example 4] in the description and FIG. 1. Therefore, the above-described demandant's allegation cannot be accepted.

(e) Referring to reference materials 8 to 15, the demandant of the trial alleges, in item d) on pages 12 to 15 in the written opinion, that it can be assured that EAC is ethyl acrylate because only ethyl acrylate satisfies the relation between the content and the mole number in the description by calculating the degree of purity and the specific gravity of a commercial item while ethyl acetate, 3-chloropropionic acid ethyl ester, and 3-bromopropionic acid ethyl ester do not satisfy the relation.

However, there is no reason to believe that the commercial item, which is used in the allegation, may be used also in the description. Thus, if there is no specific description about the item in the description, while the mole number and the content are described, a person skilled in the art would understand that a treatment is made using a material having such a concentration according to the mole number and the content. Thus, the demandant's allegation that pure compounds are calculated based on values of

a few kinds of commercial items that are not described at all in the description, and ethyl acrylate would satisfy the relation among the compounds having a mole number falling under the calculated mole numbers is unreasonable. Therefore, the allegation about determination of errors cannot be accepted.

(f) Referring to reference materials 16 and 17, the demandant of the trial shows the fact that the abbreviated name of "EAC" is generally used as an abbreviated name of ethyl acrylate, and alleges, in item e) on page 15 in the written opinion, that if ethyl acrylate were correctly described, ethyl acrylate is consistent with the descriptions in paragraph [0034] and FIG. 1.

However, it is true that EAC is described as "ethyl acetate "in the description although EAC is used as an abbreviated name of ethyl acrylate in some documents. There are some examples such that ethyl acrylate is abbreviated to EA and ethyl acrylate is abbreviated to EAC (refer to the websites of MITSUBISHI CHEMICAL CORPORATION, TOAGOSEI CO., LTD., and SHOWA DENKO K.K.), which are different expressions from the one that the demandant of the trial alleges. Therefore, it cannot be said that a person skilled in the art would naturally understand that expressing EAC as "ethyl acetate" is an error while expressing EAC as "ethyl acrylate" is correct.

## (4) Summary

Therefore, it cannot be said that the correction is aimed at matters prescribed in Article 126(1)(ii) of the Patent Act.

In addition, because the correction is not irrational in relation to the descriptions in the patented description, scope of claims, or drawings, the correction is not obviously aimed at clarification of an ambiguous description, restriction of the scope of claims, or elimination of the citing and cited relationship among the claims. Therefore, the correction is not admitted as a correction aimed at any of the matters prescribed in Article 126(1) of the Patent Act.

#### 2. New matter

While the correction is not admitted as a correction aimed at any of the matters prescribed in Article 126(1) of the Patent Act as described above, it can be understood that the demandant of the trial alleges that the correction is aimed at error correction in the written demand for trial for correction and the written opinion, so that the precaution of examining a case where the correction is admitted as a correction aimed at error correction will be taken.

- (1) In a correction aimed at error correction, whether or not new matter is added is determined by whether the amendment is made within the scope of matters stated in the description, the scope of claims, or drawings originally attached to the application (hereinafter referred to as "the originally attached description, etc."). Thus, it is reasonable to make this determination by whether new technical matters are introduced by the correction.
- (2) There is no description or chemical formula of "ethyl acrylate" at all in the originally attached description, etc., so that it cannot be said that a correct description should be determined as an obvious matter even if some errors are understood to exist.

The descriptions about the synthesis of the compound (4) in [Synthesis Example 4] described at the paragraph [0034] in the description is completed by the scheme of [Chemical formula 14] and an explanation thereof. Thus, changing a starting material of the compound (4) from "ethyl acetate" to "ethyl acrylate", which is not described at all, should be determined as a correction by which new technical matters are introduced even when comprehensively considering the other descriptions in the originally attached description.

(3) The demandant of the trial alleges, in item f) on page 15 in the written opinion, that it is obviously determined by a person skilled in the art that the correct description should be ethyl acrylate, and alleges that anybody will understand that "ethyl acrylate" is as good as being described in paragraph [0034].

However, different from a case of correcting an abbreviated name, the correction is to change a starting material to a compound name, which or a chemical formula of which is never described in the description, and a correct description of the abbreviated name of the compound name to be corrected is not determined unambiguously.

Therefore, the demandant's allegation cannot be accepted even if the description can be said to be not inconsistent when the description is ethyl acrylate by making examination referring to many reference materials, and thus new technical matters should be determined to be introduced by the correction.

## No. 4 Closing

As described above, the correction is not admitted because the correction is not aimed at any of the matters prescribed in Articles 126(1)(i) to (iv) of the Patent Act, and does not conform to the requirements in accordance with Article 126(6) of the Patent Act.

Therefore, the trial decision shall be made as described in the conclusion.

March 8, 2016

Chief administrative judge: INOUE, Masahiro Administrative judge: SERA, Satoki Administrative judge: NAKATA, Toshiko