Trial decision

Invalidation No. 2011-800266

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Regarding the trial decision made on July 3, 2013 for the case of the patent invalidation trial of Patent No. 3,690,864 "METHOD FOR PRODUCING A PHOTOCATALYST BODY" between the parties, the Intellectual Property High Court has made a court decision to cancel the trial decision (2013 (Gyo-Ke) No. 10228, which was given on May 29, 2014). In response, as a result of further proceeding, the following decision is made.

Conclusion

The appeal of the case is groundless.

The costs in connection with the trial shall be borne by the demandant.

Reason

No. 1 History of the procedures

The application regarding Patent No. 3,690,864 was filed on March 29, 1996, and registered on June 24, 2005.

Regarding the Patent, a demand for invalidation trial was filed on September 11, 2006 (Invalidation Trial No. 2006-80181), and a trial decision was made on September 13, 2007 to the effect that "the Patent with regard to the inventions according to Claims 1 to 5 of the Patent No. 3,690,864 should be invalidated. The invalidation demand for trial with regard to the patents of the inventions according to Claims 6 to 12 of Patent No. 3,690,864 should be groundless." In response, a suit against the trial decision regarding the invalidation of the inventions of Claims 1 to 5 was filed (2007 (Gyo-Ke) No. 10367), and on October 16, 2008, a court decision was given to the effect that "In

the trial decision that Japan Patent Office made on September 13, 2007 with regard to the case of Invalidation Trial No. 2006-80181, the invalidation of the patents of the inventions according to Claims 2 to 5 of Patent No. 3,690,864 shall be canceled." The court decision was made final and binding on October 30, 2008. The trial decision regarding the invention according to Claim 1 was made final and binding on October 30, 2008 owing to the binding of the above court decision. The trial decision regarding the inventions according to Claims 6 to 12 was made final and binding owing to the expiration of the period for filing a suit (October 26, 2007).

Thereafter, for the inventions according to Claims 4 and 5 of the Patent, a correction demand was made on April 8, 2009. Then, a decision of Invalidation Trial No. 2006-80181 dated July 8, 2010 was made to the effect that "The correction shall be approved. The trial of the case is groundless." and the decision was made final.

Thereafter, another demand for invalidation trial was made on December 26, 2011 (Invalidation Trial No. 2011-800266) to seek for the invalidation of the patents with regard to the inventions according to Claims 2 to 12 of the Patent, and a trial decision was made on July 3, 2013 to the effect that " the Patent with regard to the inventions according to Claims 2 to 12 of the Patent No. 3,690,864 should be invalidated." In response, a suit for a cancellation of the trial decision was filed (2013 (Gyo-Ke) No. 10228), and a court decision on May 29, 2014 was given to the effect that "the trial decision made by the Japan Patent Office on July 3, 2013 for Invalidation Trial No. 2011-800266 should be cancelled." (Hereinafter, referred to as "2013 (Gyo-Ke) No. 10228".) The court decision was made final and binding on June 12, 2014.

No. 2 The inventions according to the claims of the Patent

The inventions according to Claims 2 to 12 of the Patent should be specified by the matters recited in the scope of the claims of the specification (hereinafter referred to as "the specification") that have been corrected by the correction demand made on April 8, 2009 as follows (hereinafter referred to as "the Corrected Invention 2" and so on in the order of claim number, and collectively referred to as "the Corrected Invention."):
"[Claim 2]

A method for producing a photocatalyst body, comprising the steps of disposing on a substrate a first layer consisting of a binder that is not decomposed by a photocatalyst, and disposing on the first layer a second layer that is prepared by use of a mixture of the photocatalyst and an amorphous-type titanium peroxide sol.

[Claim 3]

A method for producing a photocatalyst body, comprising the steps of disposing on a substrate a first layer with no photocatalytic function that is prepared by use of an amorphous-type titanium peroxide sol, and disposing on the first layer a second layer that is prepared by use of a mixture of a photocatalyst and an amorphous-type titanium peroxide sol.

[Claim 4]

A method for producing a photocatalyst body in which a photocatalyst is supported and fixed on a substrate, comprising the steps of preparing a photocatalyst by use of titanium oxide particle or titanium oxide powder, mixing the photocatalyst with an amorphous-type titanium peroxide sol, and drying at a room temperature after coating to solidify.

[Claim 5]

A method for producing a photocatalyst body in which a photocatalyst is supported and fixed on a substrate, comprising the steps of preparing a photocatalyst by use of titanium oxide sol, mixing the photocatalyst with an amorphous-type titanium peroxide sol, and drying at room temperature after coating to solidify.

[Claim 6]

The method for producing a photocatalyst body of Claim 5, using a mixture sol where 30 weight% or less of titanium oxide sol is mixed on the basis of total amount of titanium oxide sol and amorphous-type titanium peroxide sol when titanium oxide sol concentration is 2.70 to 2.90% and amorphous-type titanium peroxide sol concentration is 1.40 to 1.60%.

[Claim 7]

The method for producing a photocatalyst body of Claim 5, using a mixture sol where 20 to 80 weight% of titanium oxide sol is mixed on the basis of total amount of titanium

oxide sol and amorphous-type titanium peroxide sol when titanium oxide sol concentration is 2.70 to 2.90% and amorphous-type titanium peroxide sol concentration is 1.40 to 1.60%.

[Claim 8]

The method for producing a photocatalyst body of Claim 5, using a mixture sol where 70 weight% or more of titanium oxide sol is mixed on the basis of total amount of titanium oxide sol and amorphous-type titanium peroxide sol when titanium oxide sol concentration is 2.70 to 2.90% and amorphous-type titanium peroxide sol concentration is 1.40 to 1.60%.

[Claim 9]

The method for producing a photocatalyst body according to any one of Claims 5 to 8, wherein the titanium oxide sol is obtained by subjecting the amorphous-type titanium peroxide sol to heat treatment at 100°C or more.

[Claim 10]

The method for producing a photocatalyst body according to any one of Claims 1 to 9, wherein sodium ion is present on a surface of the substrate and/or the first layer.

[Claim 11]

The method for producing a photocatalyst body according to any one of Claims 1 to 10, wherein a particle consisting of a material of self-emission type ultraviolet irradiation material or phosphorescent-type ultraviolet irradiation material, or a particle in which these irradiation materials are mixed is used with a particle of a photocatalyst.

[Claim 12]

The method for producing a photocatalyst body of Claim 11, wherein said self-emission type ultraviolet irradiation material or phosphorescent-type ultraviolet irradiation material has a light-emitting wavelength or a phosphorescent wavelength corresponding to an excitation wavelength of a photocatalyst to be used."

No. 3 Object of the demand and the demandant's allegation

Demandant demanded that the patents according to the Corrected Inventions 2 to 12 should be invalidated and a cost for trial should be borne by demandee.

Grounds for the invalidity argued by Demandant are set forth as below:

1 The third ground for the invalidity (Usurped application, Part 1)

The Corrected Invention was made not by Yoshimitsu Matsui and Shiro Ogata (hereinafter respectively referred to as "B" and "A") pretending to be the inventors, but by Dr. Hiromichi Ichinose (hereinafter referred to as "C"), the authentic inventor, and his surrounding researchers.

Accordingly, the Patent should be invalidated under the provision of Article 123-1(vi) of the Patent Act.

2 The fourth ground for the invalidity (Usurped application, Part 2)

Even if A and B were involved in the inventions, the right to obtain the patent of the Corrected Invention would be exclusively owned by the Saga Prefectural Governor, not by the original applicants, Tanaka Tensha Kabushiki Kaisha (hereinafter referred to as "Tanaka Tensha") and Tao Kabushiki Kaisha (hereinafter referred to as "Tao"), who did not succeed the right to obtain the patent.

Accordingly, the Patent should be invalidated under the provision of Article 123-1(vi) of the Patent Act.

3 The fifth ground for the invalidity (Violation of requirements for joint application)

Even if A and B were involved in the invention, and the Corrected Invention were the joint invention of researchers including A , B and C, the Saga Prefectural Governor would have joint ownership of a right to obtain the patent of the Corrected Invention. Despite such circumstances, applicants of the patent application did not include the Saga Prefectural Governor as a joint applicant.

Accordingly, the patent application did not conform to the provision of Article 38 of the Patent Act. Therefore, the Patent should be invalidated pursuant to the provision of Article 123-1(ii) of the Patent Act.

Meanwhile, Demandant withdrew the first and second ground for the invalidity at the Oral proceeding (see First Oral proceeding and the trial record of the examination of evidence).

Evidences submitted by Demandant are set forth as below:

1 Documentary evidences

(1) Evidence A No. 1

Journal of the Ceramic Society of Japan, Vol. 104, No. 8, pages 715 to 718 (1996), Hiromichi Ichinose and two others "Synthesis of Peroxo-Modified Anatase Sol from Peroxo Titanic Acid Solution"

(2) Evidence A No. 2

Journal of the Ceramic Society of Japan, Vol. 104, No. 10, pages 914 to 917 (1996), Hiromichi Ichinose and two others "Properties of Anatase Films for Photocatalyst from Peroxo Titanic Acid Solution and Peroxo-Modified Anatase Sol"

(3) Evidence A No. 3

Finish & Paint (Paint Publishing), November 1996, pages 27 to 31, Hiromichi Ichinose, "The development of PTA solution and PA sol and the properties thereof"

(4) Evidence A No. 4: WEB OF KNOWLEDGE, search result

(5) Evidence A No. 5: Excerpt from the website of The Ceramic Society of Japan

(6) Evidence A No. 6: Agreement on the handling of technical guidance-related invention (Kon Corporation)

(7) Evidence A No. 7: Agreement of technical guidance (Saga Ceramics Research Lab Doc. No. 120)

(8) Evidence A No. 8: Agreement on the handling of technical guidance-related invention (Tanaka Tensha)

(9) Evidence A No. 9: Agreement of technical guidance (Notice) (Saga Ceramics Research Lab Doc. No. 96)

(10) Evidence A No. 10: Intellectual Property High Court Decision 2007 (Gyo-Ke) No. 10278

(11) Evidence A No. 11: Osaka District Court Decision 1999 (Wa) No. 12699

(12) Evidence A No. 12: Tokyo District Court Decision 2001 (Wa) No. 7196

(13) Evidence A No. 13: Intellectual Property High Court Decision 2012 (Gyo-Ke) No. 10280

(14) Evidence A No. 14: Invalidation Trial No. 2006-80181

(15) Evidence A No. 15: Japanese Unexamined Patent Application Publication No. H7-286114
(16) Evidence A No. 16: Japanese Unexamined Patent Application Publication No. H7-171408
(17) Evidence A No. 17: Intellectual Property High Court Decision 2007 (Gyo-Ke) No. 10367

2 Witness

C

No. 4 Object of reply for Demandant’s allegation and Demandee's argument

Demandee claimed to the effect that the demand for trial should be rejected and a cost for trial should be borne by demandant, with an argument that the grounds for invalidity argued by demandant are groundless.

Evidences submitted by the Demandee are set forth as below:

Evidence B No. 1: Excerpt of "Kagaku Jiten" edited by Michinori Ohki and three others, published by Tokyo Kagaku Dojin Co. Ltd. (May 10, 1995)
Evidence B No. 2: Japanese Unexamined Patent Application Publication No. H9-71418
Evidence B No. 3: Japanese Unexamined Patent Application Publication No. H9-187721
Evidence B No. 4: Japanese Unexamined Patent Application Publication No. H9-220477
Evidence B No. 5: Japanese Unexamined Patent Application Publication No. H9-223582
Evidence B No. 6: Japanese Unexamined Patent Application Publication No. H9-234376
Evidence B No. 7: Japanese Unexamined Patent Application Publication No. H9-248426
Evidence B No. 8: Japanese Unexamined Patent Application Publication No. H9-252992

Evidence B No. 9: Tokyo District Court Decision 2000 (Wa) No. 16721

Evidence B No. 10: Intellectual Property High Court Decision 2008 (Gyo-Ke) No. 10427

Evidence B No. 11: International Publication No. WO97/36677

Evidence B No. 12: WIPO website

Evidence B No. 13: U.S. Patent Application No. 08-952983, the specification, etc.

Evidence B No. 14: Response letter to the Office Action dated September 15, 1999 in U.S. Patent Application No. 08-952983

Evidence B No. 15: PETITION TO CHANGE INVENTORSHIP

Evidence B No. 16: U.S. Patent No. 6,107,241 [U.S. Patent Application No. 08/952983]

Evidence B No. 17: U.S. Patent No. 6,429,169 [a continuation of U.S. Patent Application No. 08/952983]

Evidence B No. 18: Saga Ceramics Research Lab, Heisei-7 nen-do business report

Evidence B No. 19: Japanese Unexamined Patent Application Publication No. H1-224220

Evidence B No. 20: Japanese Unexamined Patent Application Publication No. S63-35419

Evidence B No. 21: Japanese Patent No. 2,938,376

No. 5 Judgment by the body

In view of the case, the fifth ground for invalidity should be examined first. It should be noted in the following that the evidence will be abbreviated as, e.g., "A-1" for "Evidence A No. 1."

5-1 Fifth ground for invalidity

1 Regarding the documents of A-8 and A-9

It is an undisputed fact between the parties that C, a research fellow of the Saga Ceramics Research Laboratory (hereinafter referred to as "the Labs".), provided technical guidance for Tanaka Tensha.

Further, it can be seen that the "Agreement on the handling of technical guidance-related invention" (A-8, hereinafter referred to as "the Agreement") and

"Agreement on technical guidance (Notice)" (A-9, hereinafter referred to as "the Notice") (Hereinafter collectively referred to as "the Documents") contained prepared forms to be filled in when Saga Prefecture provides technical advices (A-6 and A-7). In view of this, it is recognized that an "Agreement on the handling of technical guidance-related invention" and an "Agreement on technical guidance (Notice)" are made when someone receives technical guidance from the Labs. Consequently, it is hardly believed that technical guidance was provided for Tanaka Tensha without preparing these documents. It is thus presumed that the technical guidance was provided with the both Documents.

Accordingly, it is recognized that there was an agreement between the Labs and Tanaka Tensha as same as the content described in the Agreement, and the Notice was prepared on the basis of the Agreement. Thus, the content of the documents is taken into consideration for the body's examination.

2 Whether or not, the Saga Prefectural Governor is said to have a right to obtain the Patent, or at least he/she is said to be an applicant of the Patent according to the Agreements.

(1) Regarding the meaning of "technical guidance-related invention"

Regarding the meaning of "an invention obtained in connection with technical guidance (hereinafter referred to as "technical guidance-related invention") in the Agreement, Article 2 specifies that if a member of a company which has received technical guidance from the Labs and the company files a patent application of an invention independent of the technical guidance, prior to the patent application filing, the company has to make an agreement with the Governor that the inventions have been made independently. And, Article 3 specifies that if a member of a company which has received technical guidance from the Labs and a member of the Saga Prefectural Government make an invention together, the company and Saga prefecture have to file a patent application of the invention jointly. Besides, Article 1 specifies that a right to obtain a patent of an invention made in association with "technical guidance-related invention" and a patent obtained on the basis of the former right shall belong to the Saga

Prefectural Governor except for the case corresponding to the provisions of Article 2 and Article 3 (A-8).

As seen above, the term "technical guidance-related invention" in the Agreement is used without distinction of a person who has made an invention. Further, if the term "an invention obtained in connection with the technical guidance" is literally construed, it is natural to construe as being sufficient to be an invention obtained in connection with technical guidance. On the other hand, according to the Agreements, the "technical guidance-related invention" does not necessarily correspond to an invention which is made under a technical guidance provided by a member of the Prefectural Government contributing an original part of the invention through the process of recognizing a problem to be sold and embodying an idea based on the recognition. In other words, it does not refer to the requirement that a member of the Prefectural Government provides a technical guidance leading to an invention to such an extent that the invention may be made jointly. If the "technical guidance-related invention" is construed as such, the invention corresponding to the "technical guidance-related invention" is only an invention independently made by a member of the Prefectural Government, or a joint invention made by a member of the Prefectural Government and a member of a company receiving the guidance. However, that understanding is inconsistent with the provision of Article 2 with regard to "technical guidance-related invention" that a member of a company receiving the guidance has independently made.

Consequently, it is reasonable to understand that the "technical guidance-related invention" in the Agreement only means an invention obtained in connection with the technical guidance.

Further, it is recognized that the Corrected Invention is associated with the technical guidance provided by C. Therefore, the Corrected Invention corresponds to the "technical guidance-related invention" in the Agreement, and is covered by the Agreement.

(2) As to whether C is the inventor of the Corrected Invention

A In view of the nature of technical guidance by the Labs that can be seen from the

description, etc. of the Agreement as is found in the above (1), and in view that there is no explicit description in the Agreement with regard to the transfer of a right to obtain a patent to Saga Prefecture, regardless of the fact that the Agreement is construed as being based on the premise that it is the inventor who originally owns a right to obtain a patent by making an invention and may file a patent application under the principle of the Patent Act, Article 2 of the Agreement may be construed as specifying that when only a member of a company to be instructed is an inventor for a "technical guidance-related invention," a right to obtain a patent for the invention is owned by the above person, and if the right to obtain a patent is assigned from that person, the company to be instructed may independently file a patent application under the condition that the prior consent is obtained from the Saga Prefectural Governor. Further, Article 3 of the Agreement may be construed as specifying that when it is recognized that a member of the Prefectural Government (technical instructor) and a member of a company to be instructed have jointly made a "technical guidance-related invention," a right to obtain a patent for the invention is co-owned by both, and thus the patent application for the invention should be jointly filed. Further, Article 1 shall apply except for the case corresponding to the provisions of Article 2 and Article 3.

Consequently, even if the Corrected Invention corresponds to the "technical guidance-related invention" of the Agreement as in the above finding, the applicable terms of the Agreement may differ depending on who is the inventor of the Corrected Invention. Accordingly, a consideration is given hereinafter as to whether C shall be an inventor of the Corrected Invention.

B The scope of the claims of the Patent is set forth in accordance with No. 2. Further, it can be seen from the description of the specification that the Corrected Invention has the following structures:

(A) In order to support a photocatalyst on a substrate, there has been adopted a method wherein the particles of a photocatalyst are sintered at high temperatures and supported on the substrate. Another method has been proposed wherein a certain type of fluoropolymer is used as a binder, with which a photocatalyst is supported on a

substrate ([0002]). In recent years, the rapid expansion of the range in application of photocatalysts requires a method of causing the particles of a photocatalyst to be firmly supported on all types of substrates over a long time without compromising its photocatalytic function. Especially when a titanium oxide sol with excellent photocatalytic function is used as a photocatalyst, it is particularly required to improve the bonding property due to its weak bonding to a substrate. However, in these prior art methods, the bonding strength is not satisfactory, so that few methods ensure the support over a long time. If it is intended to make a photocatalytic body which has improved bonding strength and ensures the support over a long time, there has arisen the problem that the photocatalytic function lowers ([0003]). In order to solve the above problems, amorphous-type titanium peroxide sol is used as a binder, thereby allowing photocatalyst particles to be firmly supported on any substrate over a long time without compromising their phocatalytic function ([0004]).

(B) The amorphous-type titanium peroxide sol used in the practice of the Corrected Invention may be prepared, for example, by the following manner. An alkali hydroxide such as aqueous ammonia or sodium hydroxide is added to an aqueous solution of a titanium salt such as titanium tetrachloride, $TiCl_4$. The resultant light bluish white, amorphous titanium hydroxide, $Ti(OH)_4$, may be called ortho-titanic acid, H_4TiO_4. This titanium hydroxide is washed and separated, after which it is treated with an aqueous hydrogen peroxide solution to obtain an amorphous titanium peroxide solution useful in the present invention. The amorphous-type titanium peroxide sol has a pH of 6.0 to 7.0 and a particle size of 8 to 20 nm, with its appearance being in the form of a yellow transparent liquid. The sol is stable when stored at normal temperatures over a long time. The sol concentration is usually adjusted to a level of 1.40 to 1.60%. If necessary, the concentration may be optionally controlled. If the sol is used at low concentrations, it is used by dilution such as with distilled water ([0006]).

The amorphous-type titanium peroxide sol remains as amorphous and is not crystallized into anatase-type titanium oxide at normal temperatures. The sol has good adherence, a good film-forming property, and is able to form a uniform flat thin film, and a dried film has a property of being insoluble in water. It will be noted that when

the amorphous-type titanium peroxide sol is heated to 100°C or above, it is converted to anatase-type titanium oxide sol. The amorphous-type titanium peroxide sol, which has been dried and fixed on a substrate after coating, is converted to anatase-type titanium oxide when heated to 250°C or above ([0007]).

The photocatalysts usable in the Corrected Invention include TiO_2, ZnO, $SrTiO_3$, CdS, CdO, CaP, InP, In_2O_3, CaAs, $BaTiO_3$, K_2NbO_3, Fe_2O_3, Ta_2O_5, WO_3, SaO_2, Bi_2O_3, NiO, Cu_2O, SiC, SiO_2, MoS_2, MoS_3, InPb, RuO_2, CeO_2, and the like. Of these, titanium oxide is preferred. Titanium oxide may be used in the form of particles or powder, or in the form of a sol ([0008]).

Titanium oxide in the form of a sol; i.e., a titanium oxide sol, can be prepared by heating an amorphous-type titanium peroxide sol at a temperature of 100°C or above. The properties of the titanium oxide sol, more or less, change depending on the heating temperature and the heating time. For instance, an anatase-type titanium oxide sol which is formed by treatment at 100°C for 6 hours has a pH of 7.5 to 9.5 and a particle size of 8 to 20 nm, with its appearance being in the form of a yellow suspension. The titanium oxide sol is stable when stored at normal temperatures over a long time and may form a precipitate upon mixing with an acid or a metal aqueous solution. Moreover, the sol may be impeded in its photocatalytic activity or an acid resistance when Na ions are co-present. The sol concentration is usually adjusted to a level of 2.70 to 2.90% and the sol may be employed after adjustment of the concentration, if necessary. A titanium oxide sol prepared above is preferably used as a photocatalyst. Commercially available "ST-01" (ISHIHARA SANGYOU KAISHA Ltd) or "ST-31" (ISHIHARA SANGYOU KAISHA Ltd) may also be usable ([0009]).

(C) Further, as reference examples, paragraph [0023] describes a method for producing amorphous-type titanium peroxide sol and paragraph [0024] describes a method for producing titanium oxide sol from amorphous-type titanium peroxide sol. Further, the specification only describes a method for mixing photocatalyst and amorphous-type titanium peroxide sol as a method for preparing a composition for the manufacture of photocatalyst body of the Corrected Invention ([0012], [0013]), and only describes the one where amorphous-type titanium peroxide sol and titanium oxide sol are mixed with

each other as an example ([0026]). The specification fails to disclose that a mixture of PTA solution (amorphous-type titanium peroxide sol) and anatase-type titanium oxide sol (where a crystal of anatase-type titanium oxide is dispersed into PTA solution in a PA sol) generated from PTA solution is used.

(D) As seen above, the specification describes a method for producing amorphous-type titanium peroxide sol or a method for producing titanium oxide sol from amorphous-type titanium peroxide sol; however, it is recognized that the characteristic part of the Corrected Invention is that the amorphous-type titanium peroxide sol is used as a binder, thereby allowing photocatalyst particles to be firmly supported on any substrate over a long time without compromising its phocatalytic function.

Further, Corrected Invention 5 prepares a photocatalyst to be mixed with a binder of amorphous-type titanium peroxide sol by use of titanium oxide sol. Further, Corrected Inventions 6 to 8 specify the mixing ratios of amorphous-type titanium peroxide sol, and titanium oxide sol in Corrected Invention 5. Corrected Invention 9 specifies that the titanium oxide sol of any of Corrected Invention 5 to Corrected Invention 8 is obtained by subjecting the amorphous-type titanium peroxide sol to heat treatment at 100°C or more.

Indeed, the specification fails to disclose that significant effects may be caused if titanium oxide sol of any of Corrected Invention 5 to Corrected Invention 8 is titanium oxide sol of Corrected Invention 9.

C On the other hand, there is no description or suggestion in the following patent publications with C, an inventor, or in the following articles written by C et al. that the amorphous-type titanium peroxide sol is used as a binder.

(A) Japanese Unexamined Patent Application Publication No. H9-71418 (B-2) and Japanese Patent No. 2,938,376 (B-21)

Japanese Patent No. 2,938,376 (B-21) relates to an invention made by C, entitled "Titania film forming liquid, titania film, and method for producing the same" (filed on August 31, 1995), and Japanese Unexamined Patent Application Publication No. H9-71418 (B-2) is a publication of unexamined patent application of the above Patent,

entitled "titania film forming method."

The above publication of unexamined application describes: a liquid for the formation of titania film synthesized by reacting hydroperoxide with titanium hydroxide gel prepared from a water solution comprising titanium and a basic substance (Claim 1); a liquid for the formation of titania film in which a liquid of Claim 1 is subjected to heating treatment or autoclave treatment at 80°C or more to produce titanium oxide fine particles (Claim 2); and a titania film formed by coating or impregnating a liquid of Claim 1 or Claim 2 onto a substrate and subjecting the same to drying or heating treatment (Claim 3). These methods for forming a titania film, etc. are almost the same as the method for producing amorphous-type titanium peroxide sol and anatase-type titanium oxide sol or anatase-type titanium oxide as is described in paragraphs [0006] and [0007] of the specification. Further, paragraphs [0008], [0012], and [0021] of the above publication of unexamined application disclose that a titania film with good adhesiveness may be formed by the above invention.

Further, the above patent publication describes: a method of producing a liquid for the formation of titania film synthesized by reacting hydroperoxide with titanium hydroxide gel prepared from a water solution comprising titanium and a basic substance and subjecting the same to heating treatment or autoclave treatment at 80°C or more to produce anatase-type titanium oxide fine particle (Claim 2); and a method for the formation of titania film synthesized by reacting hydroperoxide with titanium hydroxide gel prepared from a water solution comprising titanium and a basic substance and subjecting the same to heating treatment or autoclave treatment at 80°C or more to produce a liquid in which anatase-type titanium oxide fine particles are dispersed; and causing the liquid to coat or impregnate onto a substrate and then subjecting the same to drying or heating treatment (Claim 4). These methods for forming a titania film are almost the same as the method for producing amorphous-type titanium peroxide sol and anatase-type titanium oxide sol or anatase-type titanium oxide as is described in paragraphs [0006] and [0007] of the specification. Further, paragraphs [0008] and [0021] of the above patent publication also disclose that a titania film with good adhesiveness may be formed by the invention described in the above patent publication.

There is no description or suggestion, however, in the above publications that the amorphous-type titanium peroxide sol (PTA solution) is used as a binder.

(B) An article written by C and two others entitled "Synthesis of Peroxo-Modified Anatase Sol from Peroxo Titanic Acid Solution" (Journal of the Ceramic Society of Japan, Vol. 104, No. 8, pages 715 to 718 (1996)) (A-1)

The above article (received on February 13, 1996) describes a method for synthesizing peroxo-modified anatase sol (PA sol) from peroxo titanic acid solution (PTA solution), which is the same as that described in reference example 2 of the specification. There is no description or suggestion, however, in the above article that the amorphous-type titanium peroxide sol (PTA solution) is used as a binder.

(C) An article written by C and two others entitled "Properties of Anatase Films for Photocatalyst from Peroxo Titanic Acid Solution and Peroxo-Modified Anatase Sol" (Journal of the Ceramic Society of Japan, Vol. 104, No. 10, pages 914 to 917 (1996)) (A-2)

The above article (received on May 13, 1996) respectively discloses that, regarding a film obtained by coating PTA solution or PA sol onto a substrate and subjecting the same to heat treatment at 50°C and beyond 300°C (PTA film, PA film), the adhesion was broken but a film was not delaminated, and thus the actual adhesion strength was greater than the value plotted in FIG. 5, whereas a film heated at 150°C was delaminated at a pressure of 15 to 50 MPa, and thus the strong adhesion of these films at a low temperature is due to the interface reaction between a substrate and a film, and that these results show that all the films have sufficiently strong adhesion force for the practical application, and that PA film was found to show higher photoactive properties compared to PTA film.

The above article discloses that a film made from PTA solution or PA sol has a high adhesion force; however, there is no description or suggestion that the amorphous-type titanium peroxide sol (PTA solution) is used as a binder.

(D) An article written by C entitled "The development of PTA solution and PA sol and the properties thereof" (Finish & Paint (Paint Publishing), November 1996, pages 27 to 31)(A-3)

The above article discloses the properties of peroxo titanic acid solution (PTA solution) and peroxo-modified anatase sol (PA sol) and the adhesion of titanium oxide film produced therefrom. There is no description or suggestion, however, in the article that the amorphous-type titanium peroxide sol (PTA solution) is used as a binder.

D Further, according to the documents, the content of the technical guidance was "the manufacturing of coating and its raw materials."

Further, according to the court decision of 2013 (Gyo-Ke) No. 10228, the court held that:

"C testified that B had had no knowledge about amorphous-type titanium peroxide sol, and C provided technical guidance on a method of producing peroxo titanic acid (PTA) solution (amorphous-type titanium peroxide sol), a method of producing PA sol (anatase-type titanium oxide sol) transformed into anatase type from peroxo titanic acid, a method of coating PTA solution and PA sol, drying the coating of PTA solution and PA sol at different temperatures higher than room temperature, and a PA sol where a crystal of anatase-type titanium oxide is dispersed into a PTA solution."

"It can be seen from the C's story that the content of the technical guidance by C only extends to a method of producing PTA solution (amorphous-type titanium peroxide sol) and PA sol (anatase-type titanium oxide sol) and producing a photocatalyst (titanium oxide film) by use of them, and a coating method thereof, and at most extends to a PA sol where a crystal of anatase-type titanium oxide is dispersed into a PTA solution (such content is consistent with the content of the technical guidance described in the documents), but does not extend to the fact that amorphous-type titanium peroxide sol (PTA solution) is mixed with photocatalyst and used as a binder so as to achieve strong adhesion force to a substrate."

"C himself also testified that C has made a presentation on 'functional titania coating' in a workshop of the Ceramics Research Labs held in the Labs on October 6, 1995, in which 90 people including Ceramics-related businesses in Saga Prefecture, potters, pot clay manufacturers, commercial firm, fine ceramics-related manufacturers, university members and students, researchers from the other prefectures, newspapers, Saga

Prefectural members and members of Regional Bureaus of International Trade and Industry and the like participated, and that in the workshop he made a presentation on a method of producing amorphous-type titanium peroxide sol."

Additionally, Japanese Unexamined Patent Application Publication No. H1-224220 (B-19) discloses adding an alkaline to a titanate water solution (titanium chloride, titanyl sulfate, etc.) for neutralization to prepare a titanium hydroxide-containing gel or sol, and adding thereto hydroperoxide to dissolve the titanium hydroxide so that a uniform water solution (titanate water solution) can be prepared, and that the water solution has a pH of 3 to 12 and is extremely stable and exhibits brownish yellow transparency (page 3, left upper column, line 5 to left bottom column, line 9). It can be seen from the above description and an evidence (B-2) that the above publication describes a method of preparing amorphous-type titanium peroxide sol. Consequently, it is recognized that the amorphous-type titanium peroxide sol and a method of producing the same themselves were publicly known before the filing of the Patent. Accordingly, it is recognized from the above determination on C's story that C only provided guidance on a publicly known product and method with regard to the presence of amorphous-type titanium peroxide sol and a method of producing the same.

It cannot be seen from the aforesaid C's finding and the holding of D that C provided an idea of the Corrected Invention in the aforesaid finding B that the amorphous-type titanium peroxide sol (PTA solution) is used as a binder, thereby allowing photocatalyst particles to be firmly supported on any substrate over a long time without compromising its phocatalytic function, nor suggested a problem, nor was involved in getting an idea, even if B had no knowledge about amorphous-type titanium peroxide sol before the technical guidance as in C's story found in the court decision 2013 (Gyo-Ke) No. 10228. Furthermore, there is no fact that C was involved in the process of embodying an idea; specifically, witnessing an experiment for confirming the efficacy of amorphous-type titanium peroxide sol (PTA solution) as a binder.

E Based on the above finding A to C and the holding of D, it is reasonable to determine

that C was not involved in the completion of the characteristic part of the Corrected Invention in a creative manner, and thus is not the joint inventor of the Corrected Invention.

(3) Regarding the interpretation of Article 2 of the Agreement

As in the above finding (2), since C is not the inventor of the Corrected Invention, the inventors of the Corrected Invention are A and B. Since B is a member of a company instructed, Article 2 of the Agreement will apply to B's part of a right to obtain a patent for the Corrected Invention. Further, regarding the patent application of the case, there was no prior agreement with the Saga Prefectural Governor.

In this regard, Demandant argues that Article 1 of the Agreement should apply, because the prior agreement with the Saga Prefectural Governor was not obtained regarding the patent application of the case and it does not correspond to the provision of Article 2 of the Agreement.

Given that the Demandant's construction of the Agreement is correct, Saga Prefecture shares a right to obtain a patent for the Corrected Invention, or may be a co-owner of the patent right. Therefore, in order to reserve the patent right, Saga Prefecture is supposed to have claimed for transfer of the patent right or a shared right to obtain a patent against Demandee, or, after the grant of the Patent, done something, such as demanding an invalidation trial.

According to the C's story found in the court decision 2013 (Gyo-Ke) No. 10228, however, "it is recognized that Saga Prefecture complained that there had been no notice with regard to the filing of the Patent, and a person of Saga Prefecture questioned Tanaka Tensha about the filing of the Patent; however, there was no evidence sufficient to find that Saga Prefecture took further action to reserve a right." Furthermore, when Tao and Tanaka Tensha filed the PCT application (B-11, the international filing date was March 12, 1997) on the basis of the application of the Patent, A and B were the inventors, but C was not the inventor. On August 8, 1997, when an invention according to the amorphous-type titanium oxide sol (Claim 20) and an invention according to the anatase-type titanium oxide sol obtained by heating the amorphous-type titanium

peroxide sol at 100°C or more (Claim 21) were added, C was added to inventors and applicants (B-11 and B-12). Then, each of the above claims was canceled. However, there is no evidence that C or Saga Prefecture raised an objection against omitting him from the inventors (B-13 to B-17) when each of the above claims was canceled. Such a circumstance is inconsistent with the presumption that Saga Prefecture may have a right to obtain the patent.

In view of the foregoing actions of Saga Prefecture, it is reasonable to construe as meaning that the cases corresponding to the provision Article 2 set forth in the provision of Article 1 of the Agreement are not the cases where the consent of Saga Prefectural Governor was not obtained, but rather the cases where a member of a company to be instructed independently made a technical guidance-related invention. Such construction is consistent with the principle of the Patent Act that a right to obtain a patent for an invention is owned by the inventor.

Consequently, even if Plaintiff failed to obtain a consent of the Saga Prefectural Governor as of the filing of the Patent, it may not directly lead to the conclusion that a right to obtain a patent for the Corrected Invention or the patent right should be owned by the Saga Prefectural Governor (It only creates a problem as to whether to violate the procedure to obtain a consent of the Saga Prefectural Governor as provided in Article 2 of the Agreement.) Further, there is no other evidence supporting that a right to obtain a patent for the Corrected Invention or the patent right is owned by the Saga Prefectural Governor.

In view of the above, it cannot be said that Saga Prefecture has a right to obtain a patent for the Corrected Invention and is at least an applicant of the Patent.

(4) Summary

For the above reason, the argument for the fifth ground for invalidity that the Saga Prefectural Governor has a joint ownership of a right to obtain a patent for the Corrected Invention is groundless.

5-2 Third ground for invalidity

As is discussed in the above "5-1 Fifth ground for invalidity", item 2(2), the inventor of the Corrected Invention is not C, but A and B.

Accordingly, the argument for the third ground for invalidity that the inventor of the Corrected Invention is C, not A and B, is not reasonable.

5-3 Fourth ground for invalidity

As is discussed in the above "5-1 Fifth ground for invalidity", item 2(3), a right to obtain a patent of the Corrected Invention is not owned by the Saga Prefectural Governor.

Accordingly, the argument of the fourth ground for invalidity is groundless since the premise of the argument that a right to obtain a patent for the technical guidance-related invention and its obtained patent are exclusively owned by the Saga Prefectural Governor is false.

No. 6 Closing

As aforementioned, the Patents according to the Corrected Inventions may not be invalidated on the basis of the grounds and evidences provides by Demandant.

The costs in connection with the trial shall be borne by Demandant under the provision of Article 61 of Civil Procedure Law as applied mutatis mutandis pursuant to Article 169-2 of the Patent Act.

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

October 7, 2014

Chief administrative judge: KAWAHARA, Hideo

Administrative judge: KAWABATA, Osamu

Administrative judge: MAMADA, Tadahiro