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## Taiwan

### **Existence of a Motivation to Combine Prior Art References: Analysis of Taiwan Intellectual Property Court Decision on Patent Invalidation**

In the current Taiwanese patent examination practice, “a motivation to combine prior art references” is one of the most common reasons used to establish obviousness of an invention. However, how the existence of a motivation to combine references could be determined has long been at dispute. In theory, “relevance between technical fields”, “commonalities of problems to be solved”, “commonalities of functions or effects”, and “teachings or suggestions” should all be taken into account. Nonetheless, there is considerable room for interpretation on each principle mentioned above, as shown in the court decision *Taiwan Intellectual Property Court 2017 Xingzhuansuzi No. 58 Administrative Judgement*.

With this case as an example, we discuss and analyze in detail how the Taiwan Intellectual Property Court (IP Court) judges the motivation to combine prior art references, where the IP Court overturned the rulings of the Taiwan Intellectual Property Office (IPO) and the Petitions and Appeals Committee (“Committee”).

### **Case Fact**

An invalidation request is raised against the invention patent No. I394223, “SUBSTRATE TREATING APPARATUS” (“the ‘223 patent”), which is owned by SCREEN Semiconductor Solutions Co., Ltd. After being dismissed by both the IPO and the Committee, the invalidation was further brought to the IP Court as an administrative proceeding, where the IP Court decided that the original administrative disposition and the decision in the appeal should be withdrawn, and ordered that the IPO shall revoke the invalidated claims 2-11, 13-14, and 16-20 of the ‘223 patent.

## Main Technical Features of the '223 Patent

### Disclosure of the '223 Patent:

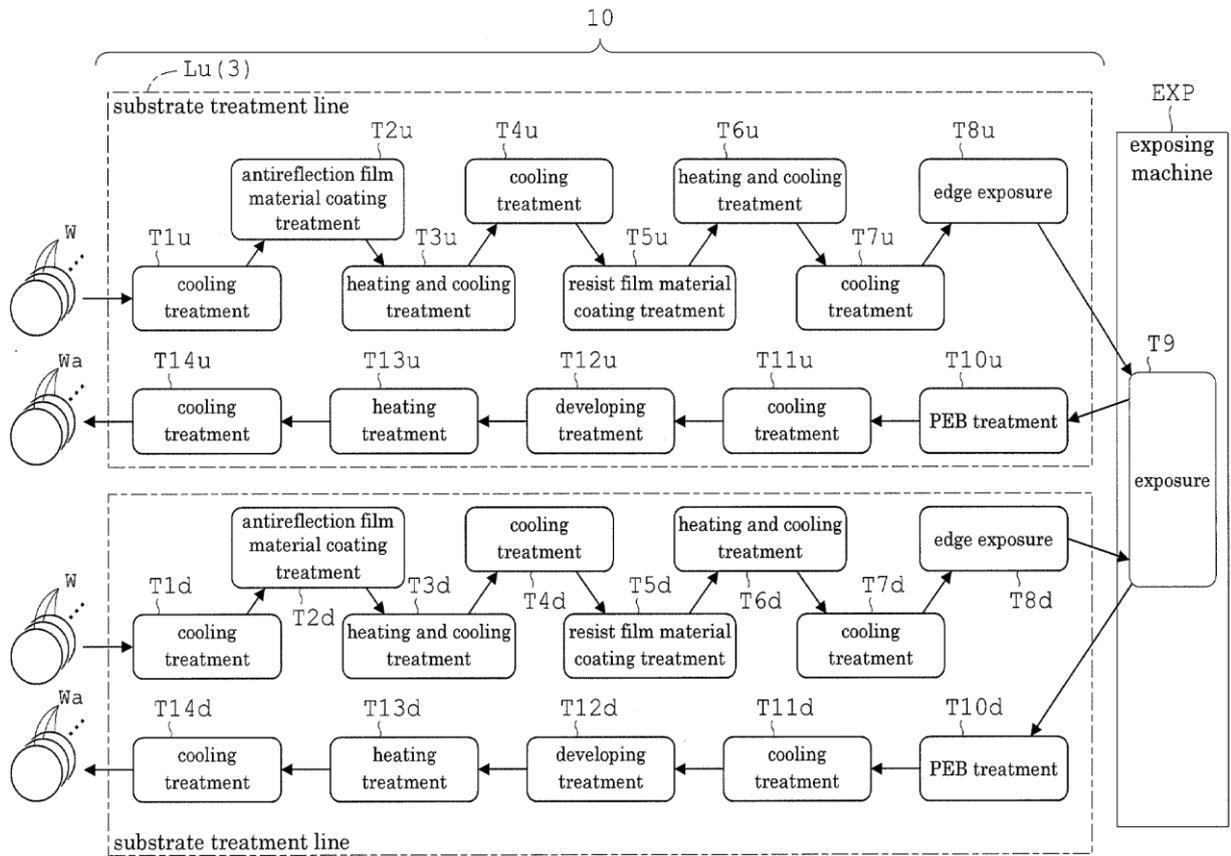
#### **Main Issue:**

In known apparatuses, it is difficult to change the steps of substrate treatment for each substrate. In other words, it is difficult to conduct multiple steps at a time in known apparatuses. The '223 patent aims at providing a substrate treating apparatus that could change the treatment processes of each substrate and simultaneously conduct two or more different processes of treatment.

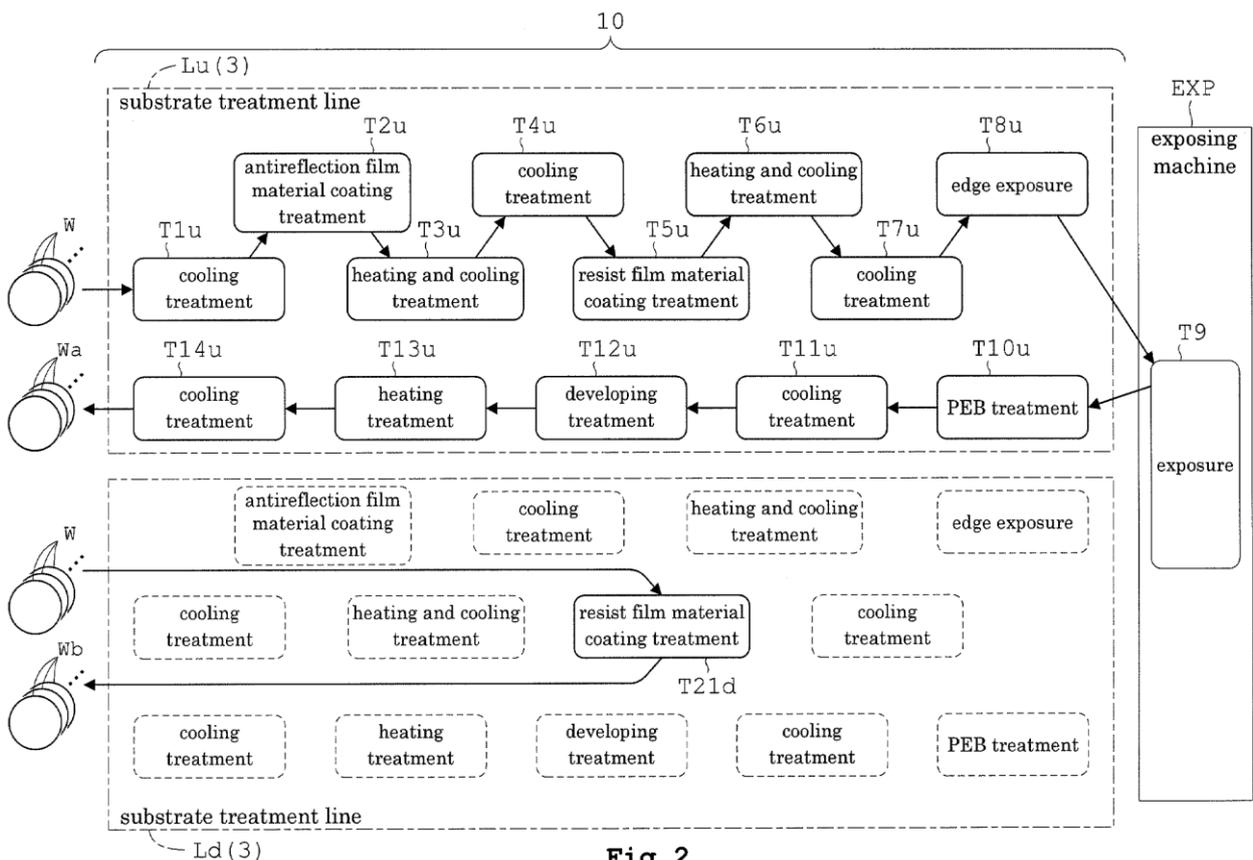
#### **Claim 2:**

A substrate treating apparatus for treating substrates comprising: a plurality of substrate treatment lines for carrying out plural types of treatment on substrates while transporting the substrates substantially horizontally; and a controller for changing processes of treatment carried out on the substrates for each of the substrate treatment line; wherein the substrate treatment lines are arranged vertically; wherein each of the substrate treatment line includes a plurality of treating units and main transporting mechanisms for transporting the substrates to and from the treating units; wherein the controller is operable to cause part of the substrate treatment lines to treat the substrates in a process in a normal operation, and other of the substrate treatment lines to treat the substrates in a process in a test run for testing, inspecting, checking or verifying treatment quality or for testing the treating units; wherein the types of the plural treating units are identical among the substrate treatment lines.

**Fig. 1 & 2 of the '223 patent:**



**Fig. 1**



**Fig. 2**

## Opinions of the IPO and the Committee

The IPO and the Committee held that the combination of Evidences 4-7 was not able to prove Claim 2 of the '223 patent obvious. The reason could be explained in the following two parts:

### **(1) There is no motivation to combine Evidences 4-7:**

The control device described in Evidence 5 does not give instructions on the steps of change of processing treatments, which makes it difficult to be combined with the control of substrate treatment lines in Evidence 2. Moreover, the semiconductor substrate treatment system 10 in Evidence 6 only includes one production line. The operation controlled by Evidences 4-7 is therefore not identical, and there should be no motivation to combine.

### **(2) The combination of Evidences 4-7 cannot prove Claim 2 of the '223 patent obvious:**

Evidence 4 does not disclose a controller and its operation conditions. The film forming device disclosed in Evidence 5 is a single type of step of production, and the processing steps cannot be changed. Evidence 6 and Evidence 7 only include a single production line. Therefore, Evidences 4-7 have not disclosed the technical features of the '223 patent. Further still, even if all evidences belong to the field of substrate processing, the goals to achieve controlling in each evidence is different, thus it is difficult to prove Claim 2 of the '223 patent obvious.

## Opinion of the IP Court

Contrary to the IPO and the Committee, the IP Court held that the combination of Evidences 4-7 is in fact able to prove Claim 2 of the '223 patent obvious. Below is the reasoning of the IP Court:

### **(1) There is a motivation to combine Evidences 4-7:**

Evidences 4-7 and the '223 patent all belong to the technical field of substrate treating

apparatuses: Evidences 4-7 and the '223 patent share the commonality of the problems to be solved, which is the problem faced in maintenance, change of condition or test runs of substrate treating apparatuses; Evidences 4-7 and the '223 patent share the commonality in function or effect, which are steps of a substrate treating apparatus that conduct film forming, exposure, and development on substrates. For the reasons above, there would have been adequate motivation to combine Evidences 4-7.

**(2) The combination of Evidences 4-7 is able to prove Claim 2 of the '223 patent obvious:**

The Court held that since “test run” has been disclosed by Evidences 5 and 6, the technical features 2 and 5 in Claim 2 of the '223 patent could be easily accomplished by utilizing the first and second processing disclosed in Evidence 4, with one conducting a “normal operation” and the other changing the process to conduct a “test run.” This also produces the difference in the judgment on obviousness of the present case.

Evidence 4 does not disclose that the controller could change the steps of substrate treatment for two treatment lines 13, and does not disclose the technical features of “changing processes” and “wherein the controller is operable to cause part of the substrate treatment lines to treat the substrates in a process in a normal operation, and other of the substrate treatment lines to treat the substrates in a process in a test run for testing, inspecting, checking or verifying treatment quality or for testing the treating units.” However, paragraphs [0013], [0024], and [0034] of Evidence 6 disclose teachings that is equivalent to the “test run” and “controller for changing processes of treatment carried out on the substrates for each of the substrate treatment line” of the '223 patent, and paragraph [0046] of Evidence 5 discloses the parallel operations of normal operation and test run in different processing chambers. By simply modifying the teachings substantially disclosed in paragraph [0134] of Evidence 4, where the “controller” could control each processing line to conduct the first or second processing, a skilled person is able to easily achieve the technical feature of the '223 patent where one conducts a “normal operation” and the other changes the process to conduct a “test run.”

## Wisdom Suggested Strategies

The present case shows that compared to the IPO and the Committee, the IP Court judges are more loosely on the existence of a motivation to combine. The standards on determining the possibility and difficulty of combining different technical means is so loose that it seems like different technical means could be easily replaced with one another. Moreover, the court puts too much emphasis on whether there is relevance or commonality “between the cited references and the invention”, instead of comparing the relevance and commonality of the disclosure “between cited references,” which might fall prey to hindsight bias.

The Amended Examination Guidelines on Determining Obviousness promulgated in Taiwan on 1 July, 2017 specifically stipulates that **when judging the existence of a motivation to combine prior art references, the relevance or commonalities of the disclosure “between references” rather than “between the references and the invention” should be considered, so that hindsight bias could be prevented.** In theory, “relevance between technical fields,” “commonalities of problems to be solved,” “commonalities of functions or effects,” and “teachings or suggestions” should all be taken into consideration.

However, throughout the three years that the new guideline has been enforced, we still find occasional cases of such “hindsight bias”. A high percentage of these cases appear in the trial process at the court, especially when the Technical Examination Officer appointed for the case is not well versed in the technical field that the invention belongs to. Judges that do not have scientific or technical backgrounds may overly rely on the Technical Examination Officer’s judgment. In light of this, the key takeaway from the case discussed above is to make sure the judge understands the technical issues correctly to make independent decisions so as to minimize the risk of invalidation.