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D E C I S I O N
of 27 September 1994

Case Number: T 0384/91 - 3.4.2
Application Number: 82306422.5
Publication Number: 0084221
IPC: G02B 5/00, B29D 11/00

Language of the proceedings: EN

Title of invention:
Method for the manufacture of a thin optical membrane

Patentee:
ADVANCED SEMICONDUCTOR PRODUCTS

Opponent:
Mitsui Petrochemical Industries Ltd.

Headword:
"Conflict" between Article 123, paragraphs (2) and (3), EPC

Relevant legal norms:
EPC Art. 100(c), 123(2), (3)

Keyword:
"Conflicting requirements of Article 123, paragraphs (2) and (3) EPC"

Decisions cited:
Interlocutory decision T 0384/91, G 0001/93

Headnote follows.



Case Number: T 0384/91 - 3.4.2

D E C I S I O N
of the Technical Board of Appeal 3.4.2
of 27 September 1994

Appellant:
(Proprietor of the patent)

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Respondent:
(Opponent)

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Representative:

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Decision under appeal:

Decision of the Opposition Division of the
European Patent Office dated 26 February 1991,
written decision posted on 13 March 1991 revoking
European patent No. 0 084 221 pursuant to
Article 102(1) EPC.

Composition of the Board:

Chairman: E. Turrini
Members: W. W. G. Hofmann
C. V. Payraudeau

Summary of Facts and Submissions

- I. The Appellant (Proprietor of the patent) lodged an appeal against the decision of the Opposition Division on the revocation of the patent No. 0 084 221.

Opposition was filed against the patent as a whole and was based on Article 100(a), (b) and (c) EPC.

In the decision to revoke the patent, the Opposition Division held that the grounds for opposition mentioned in Article 100(c) EPC prejudiced the maintenance of the patent. In particular, the amended Claim 1, on the basis of which the maintenance of the patent had been requested by the Appellant, contained the feature "substantially free of striae" which was found to extend beyond the content of the application as filed (Article 123(2) EPC).

- II. In the interlocutory decision T 384/91 of 11 November 1992 the Technical Board of Appeal 3.4.2 came to the conclusions that the feature "substantially free of striae"

- was not void of technical meaning, although not being precise in its scope,
- formed a limiting feature of method Claim 1, although directed to the product, and
- could not be derived from the application as filed.

As to the suggestion of the Appellant to replace the feature "substantially free of striae" by "of substantially uniform thickness", the Board held that such replacement would not contravene Article 123(2) EPC. It would, however, extend the protection conferred by Claim 1 of the patent as granted, contrary to the provisions of Article 123(3) EPC.

It thus appeared to the Board that the requirements for fulfilling paragraphs 2 and 3 of Article 123 EPC went in opposite directions in the sense that any attempt to remove the undisclosed feature "substantially free of striae" from Claim 1 of the patent as granted, added before grant, would result in extending the protection conferred by the patent.

The Board, therefore, referred the following question to the Enlarged Board of Appeal in accordance with Article 112(1)(a) EPC:

"If a European patent as granted contains subject-matter which extends beyond the content of the application as filed and also limits the scope of protection conferred by the claims, is it possible during the opposition proceedings to maintain the patent in view of paragraphs 2 and 3 of Article 123 EPC?".

III. The question was answered by the Enlarged Board of Appeal in the G 0001/93 of 2 February 1994 as follows:

"1. If a European patent as granted contains subject-matter which extends beyond the content of the application as filed in the sense of Article 123(2) EPC and which also limits the scope of protection conferred by the patent, such patent cannot be maintained in opposition proceedings unamended, because the ground for opposition under Article 100(c) EPC prejudices the maintenance of the patent. Nor can it be amended by deleting such limiting subject-matter from the claims, because such amendment would extend the protection conferred, which is prohibited by Article 123(3) EPC. Such a patent can, therefore, only be maintained if there is a basis in the application

as filed for replacing such subject-matter without violating Article 123(3) EPC.

2. A feature which has not been disclosed in the application as filed but which has been added to the application during examination and which, without providing a technical contribution to the subject-matter of the claimed invention, merely limits the protection conferred by the patent as granted by excluding protection for part of the subject-matter of the claimed invention as covered by the application as filed, is not to be considered as subject-matter which extends beyond the content of the application as filed in the sense of Article 123(2) EPC. The ground for opposition under Article 100(c) EPC therefore does not prejudice the maintenance of a European patent which includes such a feature."

IV. The Appellant requested that the decision under appeal be set aside and the patent be maintained on the basis of Claims 1 to 20 according to a main and 3 auxiliary requests, description as contained in columns 1 to 6 of the patent specification, to be adapted to the amended claims, and Figure 1 of the patent specification.

V. The Respondent requested that the appeal be dismissed.

VI. The wording of **Claim 1 according to the main request** reads as follows:

"A method of making an optical membrane from a solution comprising at least one polymer and a solvent, characterized by the steps of depositing the solution on a horizontal surface of a support (8) which is rotatable about a substantially vertical axis: (read ";") accelerating the support (8) from a first to a second

speed of rotation to centrifugally spread the solution radially outwardly; forming the membrane during rotation of the support (8) by evaporation of the solvent in the solution, the radial stresses imposed on the membrane and the said evaporation of the solvent causing the membrane formed to be taut and substantially free of striae; and removing the membrane, after formation, from the surface of the support (8).".

The wording of **Claim 1 according to the first auxiliary request** differs from that of Claim 1 of the main request in that the feature "on the surface" has been added after "... to be taut".

The wording of **Claim 1 according to the second auxiliary request** differs from that of Claim 1 of the main request in that the feature ", of substantially uniform thickness" has been added after "... to be taut".

The wording of **Claim 1 according to the third auxiliary request** differs from that of Claim 1 of the main request in that the feature "on the surface, of substantially uniform thickness" has been added after "... to be taut".

According to all requests, Claims 2 to 20 depend on Claim 1. They correspond to Claims 2 to 20 of the patent specification, Claims 4 to 7, however, being amended by deletion of the expression "at least" before "partly controlled ...".

VII. The Appellant essentially argued as follows:

It is conceivable that a feature in a claim has a technical meaning without providing a technical contribution to the subject-matter of the claimed invention. To determine whether this is the case or not,

one should look into the patent specification. For this question, it does not matter what the cited prior art is, nor whether the claims are new and inventive. The test for compliance with paragraph 2 of the order of the decision G 0001/93, as regards the problem of the technical contribution, is, therefore, absolute in the sense that it does not depend on external circumstances but only on the patent documents taking into account the amendments under consideration.

In the present case, the feature "substantially free of striae" in Claim 1 according to all requests, having, indeed, a technical meaning, should be considered as an advantage characterising the product obtained with the claimed method. However, it does not give any technical teaching as to how formation of striae can be avoided and, therefore, does not provide a technical contribution to the claimed invention.

Moreover, this feature restricts the protection conferred by Claim 1 as granted, so that also the second condition mentioned in paragraph 2 of the order of G 0001/93 is met. A further limitation is introduced in Claim 1 according to the second and third auxiliary requests with the feature "of substantially uniform thickness", which is undoubtedly disclosed in the application as filed.

In pursuance of G 0001/93, maintenance of the patent as amended should, therefore, be allowed.

VIII. The Respondent argued in substance as follows:

In the interlocutory decision T 384/91 of 11 November 1992 the Technical Board of Appeal 3.4.2 reached the conclusions that the feature "substantially free of striae" has a technical meaning, is not disclosed in the

application as filed and limits the protection conferred. These points should, therefore, not be discussed any more.

Paragraph 1 of the order of G 0001/93 states that if a granted claim contains an undisclosed feature that cannot be deleted because the protection conferred would be extended, the only solution possible consists in replacing the feature with another one, for which there is support in the application as filed, without contravening Article 123(3) EPC. This is, however, not always possible.

Paragraph 2 offers an alternative possibility provided that two conditions are met: the undisclosed feature must not provide a technical contribution to the claimed invention and must merely limit the protection conferred by the granted patent. The idea underlying this solution is that, in such a case, the added feature does not give any unwarranted advantage to the Applicant and does not adversely affect the interests of third parties.

In the present case, in order to determine whether the feature "substantially free of striae" provides a technical contribution, one should "identify" the invention in the light of the state of the art by assessing novelty and inventive step and the features responsible therefor. Moreover, the said feature should be regarded as a functional limitation on the parameters of the claimed method of making the optical membrane, which means that it, indeed, provides a technical contribution.

As to the second condition, it is difficult to establish whether it is fulfilled or not, because none of the claims of the application as filed refers to a method for the manufacture of an optical membrane. It follows

that the protection conferred by the granted patent cannot easily be compared with that of the original application.

Thus, the possibility presented in said paragraph 2 of the order of G 0001/93 does not apply to the present case and the patent should be revoked.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is, therefore, admissible.
2. The claims according to all requests have been amended in such a way that, with the exception of the feature "substantially free of striae" which will be dealt with below, there are no objections to be raised under Articles 123(2) (100(c)) and 123(3) EPC.
In particular, the feature "taut", with (first and third auxiliary requests) or without (main and second auxiliary requests) the additional specification "on the surface", has been shown in the interlocutory decision T 384/91 of this Board, dated 11 November 1992, paragraph 1.1, to be originally disclosed and not extending the scope of protection conferred by Claim 1 as granted.
3. Regarding the feature "substantially free of striae" contained in Claim 1 according to all requests, some of the aspects relevant for judging the possible infringement of Article 123(2) EPC (and of Article 123(3) EPC if the feature were removed) have already been dealt with in the said interlocutory decision (see paragraphs 1.2 to 1.4) wherein it was concluded that this feature is not void of technical

meaning, forms a limiting feature of method Claim 1 and cannot be derived from the application as filed.

Although, in the course of the appeal proceedings, the Appellant filed various versions of Claim 1, none of these versions succeeded in replacing "substantially free of striae" with an originally disclosed feature without extending the protection conferred.

This assessment of the situation, on which the question referred to and answered by the Enlarged Board of Appeal was based, still applies at the present stage.

4. Applying the decision G 0001/93 of the Enlarged Board of Appeal to the above-mentioned findings regarding the present case, therefore, leads directly to the conclusion that the patent cannot be maintained (see paragraph 1 of the order), unless - in contrast to the case dealt with in paragraph 1 of the order - the added feature, although not originally disclosed, is not to be considered as subject-matter which extends beyond the content of the application as filed in the sense of Article 123(2) EPC (paragraph 2 of the order). It, therefore, remains to be examined whether the exception provided for in the Enlarged Board's decision for the case that the protection conferred by a granted patent is limited by a feature which has not been disclosed in the application as filed but which has been added during examination (paragraph 2 of the order), applies to the patent in suit. The Enlarged Board states that in such a case a feature is not to be considered as subject-matter which extends beyond the content of the application as filed in the sense of Article 123(2) EPC if, without providing a technical contribution to the subject-matter of the claimed invention, it merely limits the protection conferred by the patent as granted by excluding protection for part of the subject-matter of the claimed invention as covered by the application as filed.

5. As an example for a case where the said condition is certainly not fulfilled, the Enlarged Board mentions a limiting feature creating an inventive selection (paragraph 16. of the reasons). However, the borderline beyond which a feature is no longer to be considered as providing a technical contribution to the subject-matter of the claimed invention and as merely limiting the protection conferred, appears to lie further in the direction of less relevance of the said feature for the invention. This view is in agreement with the fact that the Enlarged Board (see paragraphs 5 and 13) rejected the criterion used in the decision T 231/89, i.e. the criterion of relevance for novelty and inventive step, which would also imply a comparison with the cited prior art documents.

The Board concludes that there is no need to take into account the prior art documents cited during the examination and opposition procedures, but that the assessment whether the exception provided for in the Enlarged Board's decision applies in a particular case should only rely on the technical relationship of the added feature with the content of the application as originally filed, as understood by a skilled reader.

In the view of the Board, a feature at least then goes beyond providing a **mere** limitation which does not involve a technical contribution to the invention if it interacts with the way in which the other features of the claim solve the technical problem as it is understood from the application as originally filed.

The Respondent's reasoning, however, that the said condition set by the Enlarged Board refers to "inventions" which must, therefore, be "identified" by assessing novelty and inventive step in order to see whether they are and which features make them

"inventions" (see the letter of 26 August 1994, points 4, 5 and 6 of the "Observations"), is not convincing because - as is apparent from the wording of Articles 52, 54 and 56 EPC - the term "invention" does not necessarily imply the presence of novelty and inventive step.

Since the Respondent also considers it necessary to compare the protection conferred by the present Claim 1 with that conferred by the claims of the original application, the Board wishes to add that paragraph 2 of the order of the Enlarged Board does not mention (excluding protection for part of) the originally claimed subject-matter, but the subject-matter of the claims as granted when considering only those features thereof which are disclosed in the application as filed.

6. In the present case, the feature that the radial stresses and the evaporation of the solvent cause the membrane to be "substantially free of striae" primarily defines an effect, but this effect to be achieved also acts as a functional definition for the method steps to be performed.

The method of making an optical membrane from a solution comprising at least one polymer and a solvent as defined in Claim 1 represents the solution to the problem of obtaining membranes of substantially uniform thickness, of limited edge to edge and unit to unit thickness variations, and of low absorption, diffraction and dispersion of light passing through the membrane (see the original description, page 1, lines 6 to 14 and 23 to 25). It is apparent that the substantial freedom from striae, like the solution of the above-mentioned problem, depends on the appropriate choice of the parameters involved in the method, such as the composition and viscosity of the solution, the initial

and final speeds of rotation of the support, the rate of acceleration, and the evaporation rate (see column 4, lines 5 to 37 of the patent). Though it may be true that, as the Appellant puts forward, the feature "substantially free of striae" as such does not give any precise technical teaching as to how formation of striae can be avoided, it cannot nevertheless be denied that this feature is correlated with the other features of the claimed subject-matter and gives to the skilled reader at least partial indications in which direction to go when choosing parameters for performing the method according to Claim 1. There is thus some interaction with the solution of the problem by the remaining features.

It can, therefore, be concluded that the feature "substantially free of striae" provides a technical contribution to the subject-matter of the claimed invention and does not **merely** limit the protection conferred. Thus, the condition stated in paragraph 2 of the Enlarged Board's order is not fulfilled.

7. Since the feature "substantially free of striae" is contained in Claim 1 according to each one of the main and first to third auxiliary requests, the subject-matter of all of these claims extends beyond the content of the application as filed in the sense of Article 123(2) EPC. In particular, the presence of the further feature "of substantially uniform thickness" (second and third auxiliary requests) cannot remedy the presence of the feature "substantially free of striae". Therefore, none of the four requests of the Appellant is allowable, and the ground for opposition mentioned in Article 100(c) EPC prejudices the maintenance of the European patent.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

P. Martorana

E. Turrini

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Method for the manufacture of a thin optical membrane

Patentee:
ADVANCED SEMICONDUCTOR PRODUCTS

Opponent:
Mitsui Petrochemical Industries Ltd.

Headword:
"Conflict" between Article 123, paragraphs (2) and (3), EPC/II

Relevant legal norms:
EPC Art. 100(c), 123(2), (3)

Keyword:
"Conflicting requirements of Article 123, paragraphs (2) and (3) EPC"

Decisions cited:
Interlocutory decision T 0384/91, G 0001/93

Headnote:

I. The assessment whether in a given opposition case an added feature falls under the exception mentioned in paragraph 2 of the order of the decision G 1/93 should only rely on the technical relationship of the added feature with the content of the application as originally filed, as understood by a skilled reader.

II. A feature should not be considered as merely limiting the protection conferred by the granted patent without providing a technical contribution to the invention as claimed, if it interacts with the remaining features of the claim in such terms that it influences the solution of the technical problem which can be understood from the application as originally filed (paragraph 5 of the Reasons).