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D E C I S I O N
of 17 February 1999

Case Number: T 0726/95 - 3.3.5

Application Number: 89401480.2

Publication Number: 0345151

IPC: B01D 69/08

Language of the proceedings: EN

Title of invention:
Method for production of hollow fiber membrane

Patentee:
Terumo Kabushiki Kaisha

Opponent:
Baxter Healthcare Corporation

Headword:
Hollow fibre membrane/TERUMO

Relevant legal provisions:
EPC Art. 113(1), 52, 56

Keyword:
"Procedural violation (no)"
"Inventive step (yes - after amendment)"

Decisions cited:
T 0002/83, T 0168/84, T 0564/89, T 0536/88, T 0229/85, T 0219/83

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0726/95 - 3.3.5

D E C I S I O N
of the Technical Board of Appeal 3.3.5
of 17 February 1999

Appellant: (Proprietor of the patent)
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Respondent: (Opponent)
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 19 June 1995 revoking European patent No. 0 345 151 pursuant to Article 102(1) EPC.**

Composition of the Board:

Chairman: R. K. Spangenberg
Members: A.-T. Liu
S. C. Perryman

Summary of Facts and Submissions

I. European patent EP 345151 was granted upon the patent application No. 89 401 480.2. The appeal is against the decision of the opposition division revoking the patent in response to a notice of opposition. The decision under appeal was based on the main request consisting of eleven claims for the contracting states BE, DE, FR, GB, IT, NL, SE and a set of eleven claims for the contracting state ES, a first subsidiary request consisting of ten claims for the contracting states BE, DE, FR, GB, IT, NL, SE and a second subsidiary request consisting of nine claims for the same contracting states.

The opposition division considered inter alia the following documents:

D4: WO 88/06476
D5: US-A-4 329 383
D7: EP-A-0 1555 534
D8: EP-A-0 172 437

It was held that Claim 1 of the main request lacked clarity and novelty in view of the citation D4 belonging to the state of the art according to Article 54(3) and (4) EPC. The claims of the first and second subsidiary requests were found to lack an inventive step with regard to D5 in combination with either D7 or D8, two prior art documents which were acknowledged in the patent-in-suit.

II. In the statement of grounds of appeal, the appellant (patent proprietor) asserted that the opposition

division had not observed the requirements of Article 113(1) EPC since the appellant did not have sufficient opportunity to present comments on the combination of D5 with D7 or D8. This amounted to a substantial procedural violation which required the case to be remitted to the opposition division for consideration of further arguments, and reimbursement of the appeal fee. With a letter dated 4 February 1999, the appellant filed 8 new sets of claims marked as first to eighth subsidiary requests. A further subsidiary request was filed later with a letter dated 16 February 1999. The submitted claims were for all the designated contracting states including ES. Oral proceedings were held on 17 February 1999.

III. Claim 1 of the set of 10 claims of the first subsidiary request corresponds essentially to claim 1 of the first subsidiary request underlying the decision under appeal. It reads as follows:

"A method for the production of a hollow fiber membrane by the steps of discharging a spinning dope through an annular spinning nozzle and, at the same time, introducing a non-coagulating liquid for the spinning dope into the central cavity in the hollow fiber of the spinning dope being discharged, and then introducing the discharged fiber of the spinning dope into a coagulating liquid thereby solidifying the discharged fiber into a hollow fiber membrane, which method is characterized by incorporating a surface modifying agent in the non-coagulating liquid wherein said surface modifying agent adheres or fixes on the inner surface of said hollow fiber, thereby modifying the inner behavior of the produced hollow fiber membrane,

and wherein said surface modifying agent is a compound containing an isocyanate group or an epoxy group."

Claim 1 of the set of 11 claims of the further subsidiary request submitted with the letter dated 16 February 1999 differs from claim 1 of the first subsidiary request in the additional requirement of the modifying agent "containing a fluorine atom". Furthermore, this set of claims incorporates a new independent claim 2 which specifies selected epoxy compounds for use as modifying agent.

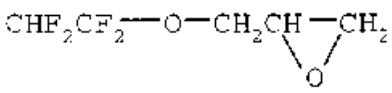
The set of 8 claims of the third subsidiary request differs from that of the first subsidiary request in that the spinning dope is defined in the preamble of claim 1 as "a spinning dope of cuprammonium cellulose". The dependent claims 2 and 3 of the first auxiliary request are cancelled and the remaining claims renumbered accordingly.

The set of 10 claims of the fifth subsidiary request differs from that of the first subsidiary request in the specification in claim 1 of selected epoxy compounds for use as modifying agent. Claim 1 of this request, which corresponds to claim 2 of the above further subsidiary request, reads as follows:

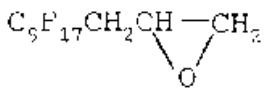
"1. A method for the production of a hollow fiber membrane by the steps of discharging a spinning dope through an annular spinning nozzle and, at the same time, introducing a non-coagulating liquid for the spinning dope into the central cavity in a hollow fiber of the spinning dope being discharged, and then introducing the discharged fiber of the spinning dope

into a coagulating liquid thereby solidifying the discharged fiber into a hollow fiber membrane, which method is characterized by incorporating a surface modifying agent in the non-coagulating liquid wherein said surface modifying agent adheres or fixes on the inner surface of said hollow fiber, thereby modifying the inner surface behavior of the produced hollow fiber membrane, and wherein said surface modifying agent is selected from:

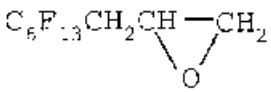
the 2-hydroperfluoroethyl glycidyl ether,



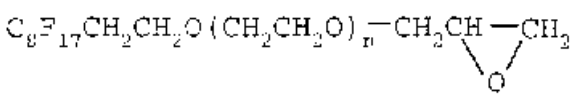
the 1,1,2,3,3-pentahydroperfluoroundecylene-1,2-oxide,



the 1,1,2,3,3-pentahydroperfluorononylene-1,2-oxide,

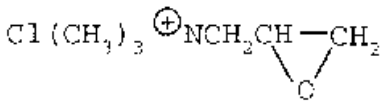


1,1,2,2-tetrahydroperfluorodecanylethylene glycol glycidyl ethers,

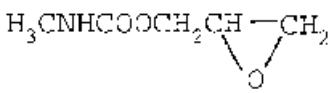


such as 1,1,2,2-tetrahydroperfluorodecanylethylene glycol glycidyl ether, 1,1,2,2-tetrahydroperfluorodecanyl-diethyleneglycol glycidyl ether, 1,1,2,2-tetrahydroperfluorodecanyltriethylene glycol glydicylether, and 1,1,2,2-tetrahydroperfluorodecanylpolyethylene glycol glycidyl ether,

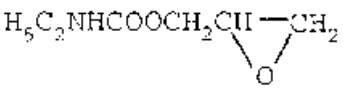
the glycidyl trimethyl ammonium chloride,



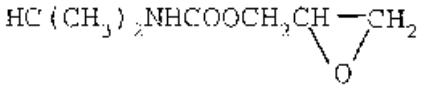
the methyl carbamic glycidyl ester,



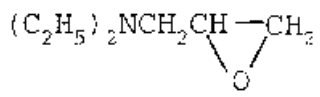
the ethyl carbamic glycidyl ester,



the isopropyl carbamic glycidyl ester,



and the diethylglycidyl amine,



IV. The appellant defined the invention as relating to "*the production of a hollow fibre membrane for use in artificial dialysis which does not entail a significant transient leukopenia*". Documents D7 and D8 were considered by the appellant to be the closest prior art documents since both were directed to the preparation of a dialysis membrane with improved biocompatibility, more specifically with respect to transient leukopenia and complement activation.

In D7, the reduction of transient leukopenia was obtained with hollow fibre membranes of regenerated cellulose modified with isocyanate. The modification process involved chemically binding isocyanate prepolymer to at least one of the surfaces of the formed membrane.

According to D8, the reduction of transient leukopenia was achieved with cellulose membranes having a degree of substitution within a specified range, the desired degree of substitution being obtained by combining in the spinning dope either two cellulose materials with different degrees of substitution, or substituted and unsubstituted cellulose materials. The substituted cellulose materials, e.g. dialkylaminoalkyl or carboxyalkyl cellulose ether, were made according to known methods.

The cited prior art thus involved either a post-treatment of the cellulose membranes (D7) or a pre-

treatment of the cellulose prior to the membrane formation (D8). Arguments and comparative test data were submitted, allegedly showing that both these known methods had drawbacks as compared to the present method wherein the modification was conducted during the preparation of the membrane. It was also asserted that, since the modification according to the method of D8 would affect not only the membrane surface but the entire mass of the cellulose, this could degrade the physical properties of the resulting hollow fibre membrane.

The appellant further advanced the argument that the skilled person did not have any incentive to modify the teachings of D7 or D8, even with the knowledge of D5, in such a way as to arrive at the claimed invention. For this, it would be necessary

(i) to make a number of successive selections of process parameters from D7, D8 and D5 which were either not sufficiently disclosed to be reproduced or not presented as particularly advantageous and

(ii) to combine these isolated features in a particular way.

Reference was made to the Decisions T 2/83, T 168/84, T 229/85 and T 564/89 which showed the proper way to apply the problem solution approach and denied the allowability of combining prior art documents in the manner used here in the decision under appeal when assessing inventive step.

The appellant added that there was even less incentive for the skilled person to restrict the spinning dope to cuprammonium regenerated cellulose. The explanation given in this respect was that such cellulose was in a state of a complex with copper and ammonium after treatment with basic copper sulfate. There was no teaching in the literature as to whether an epoxy or isocyanate compound would combine with the cellulose in that complexed state, so that the appellant should be given the benefit of the doubt in this respect, in accordance with the decision T 219/83.

V. The respondent (opponent) considered the complaint that there had been a procedural violation under Article 113(1) EPC to be unfounded, pointing out that D7 and D8 were only discussed in connection with the subsidiary requests filed one day before the oral proceedings. Moreover, these documents were acknowledged in the patent in suit as relevant prior art documents. Relying on the decision T 536/88, the respondent observed that these were to be considered as being part of the opposition proceedings. It was also remarked that the patent proprietor neither requested that the oral proceedings in opposition be adjourned nor that the proceedings be continued in writing. Therefore, the request to remit the case to the Opposition Division for further prosecution should be dismissed.

The respondent concurred with the appellant insofar as D7 was the closest prior art for the embodiment with isocyanate group containing compounds and D8, for the embodiment with epoxy containing compounds. Concerning the disclosure of D8, the respondent added that, as is

commonly known in the art, the cellulose ether used for adjusting the degree of substitution of the cellulose spinning dope could be prepared by the reaction of cellulose with corresponding epoxy compounds.

Regarding the reaction of an isocyanate or epoxy compound with the cuprammonium regenerated cellulose, it was remarked that the hydroxy groups on the surface of the cellulose would still be available in sufficient quantity to react with said groups before the modifying agent was removed. The skilled person would therefore not have any prejudice against adding the modifying agent to the spinning dope of cuprammonium regenerated cellulose.

The respondent dismissed the comparative examples filed by the appellant as irrelevant since these were neither a reproduction of D7 nor of D8 but a construction resulting from a combination of D7 and D8. Furthermore, the respondent pointed out that there was no evidence of degradation of the membranes obtained with a mixture of pretreated celluloses as disclosed in D8.

The respondent maintained that the claimed invention lacked of an inventive step in respect of either D7 or D8 in combination with D5.

VI. Requests

At the end of the oral proceedings, the appellant requested that the decision under appeal be set aside and as main request that the appeal fee be reimbursed and the case be remitted to the Opposition Division and as subsidiary requests that the patent be maintained on

the basis of the amended set of claims submitted respectively as first subsidiary request with the letter dated 4 February 1999, as further subsidiary request with the letter dated 16 February 1999, and as third, fifth, sixth, seventh and eighth subsidiary requests with the letter dated 4 February 1999.

The respondent maintained his request that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.

2. *Main request*

The opposition division cited document D5 as novelty-destroying in the addendum which was dispatched to the parties on 2 March 1995, together with the summons to oral proceedings which were to take place on 2 June 1995. Further, D5 was already acknowledged in the description. The appellant thus had some three months to study the novelty objection in relation to a document of which he was already aware. It is uncontested that the opposition division has drawn the appellant's attention to certain passages in D5 which were considered to be particularly relevant under Article 52(1) EPC.

New sets of claims to establish novelty over D5 were filed by the appellant one day before the date of the oral proceedings on 2 June 1995. Since both D7 and D8 were already acknowledged in the description as

relevant prior art, the appellant could have expected that even if the amended claims were considered to be novel over D5, the question of inventive step would have to be considered in relation to D5 in possible combination with the acknowledged prior art such as D7 or D8 and other documents in the opposition. This view is in agreement with that expressed in decision T 536/88 (OJ EPO 1992, 638) which stated that "a document indicated in the European patent as the closest or important prior art for the purposes of elucidating the technical problem set out in the description nevertheless forms part of the opposition or opposition appeal proceedings even if not expressly cited within the opposition period" (see item 2.1 and item 2.6 of the decision).

In view of the filing of the new sets of claims only one day before the oral proceedings, any newly relevant objections regarding a lack of inventive step over a combination of D5/D7 or D5/D8 could only be put forward at the oral proceedings. The appellant has confirmed that the combination of D5 with D7 or D8 was discussed at the oral proceedings of 2 June 1995 and that he did not make the request that the oral proceedings be interrupted or adjourned in order to have more time for replying to the objections of lack of inventive step with regard to a combination D5/D7 and D5/D8. In these circumstances, the appellant's complaint that his right to be heard has not been respected has no basis and the request for remittal and reimbursement of the appeal fee is rejected.

3. *First subsidiary request*

3.1 The Board concurs with the undisputed findings by the opposition division that the amendments meet the requirements of Articles 123(2) and (3) EPC. The amended claim 1 is based on claims 1 and 4 and the description page 10, lines 1 to 5 as originally filed. Compared to the subject-matter of claim 1 as granted, the process according to the present claim 1 is more restricted by the definition of the surface modifying agent being a compound containing an epoxy group or an isocyanate group.

3.2 The novelty of the subject-matter of the amended claims has never been queried. Indeed, none of the cited prior art documents discloses a method for the production of a hollow fibre membrane wherein a surface modifying compound containing an epoxy or an isocyanate group is incorporated into the non-coagulating liquid which is introduced into the central cavity in the hollow fibre of the spinning dope while the latter is being discharged (characterising features of claim 1).

3.3. The issue that remains to be decided here is that of inventive step. The appellant argues that the object of the invention is to produce a hollow fibre membrane for use in artificial dialysis which does not entail a significant transient leukopenia. The solution proposed in claim 1 is in fact two distinct processes, one alternative being a process using an epoxy containing compound for modifying the inner surface behaviour of the produced hollow fibre membrane, whereas the other process uses an isocyanate containing compound for this purpose.

The Board therefore concurs with the parties that D7

and D8 are equally relevant insofar as they both concern the production of hollow fibre membranes with the same desired properties (see D7, page 2 paragraph 3; bridging paragraph, pages 4 and 5 and D8, bridging paragraph, pages 2 and 3; page 5 paragraph 2). According to D7, leukopenia is significantly reduced by modifying hollow fibre of regenerated cellulose with isocyanate prepolymers (see claim 1 and Figure 1 of D7). In D8, leukopenia is reduced by adding modified cellulose such as dialkylaminoalkyl or carboxyalkyl cellulose ether to the cellulose spinning dope (page 6, lines 1 to 3). Thus, D7 is the closest prior art document for the isocyanate embodiment of claim 1 while D8 is considered to be the closest prior art with respect to the epoxy embodiment. D5 is further away from the invention since it discloses a method of covalently bonding heparin to a base polymer with a different aim, namely to impart long-term non-thrombogenic properties (column 1, lines 23 to 26, 43 to 46; column 2, lines 36 to 39).

3.4 During the oral proceedings, the appellant conceded that the product obtained by the present method which employs an isocyanate containing compound as modifying agent does not result in an improved product as compared to D7. Indeed, as is pointed out by the respondent and not contested by the appellant, the comparative experiments submitted with the statement of grounds of appeal dated 27 October 1995 do not include proper reproductions of the teaching of D7 and as such are inappropriate for showing any effect. The appellant has therefore confirmed that the technical problem which the invention seeks to solve is as already stated in the description as filed, page 2 lines 14 to 20,

namely to provide an easy method for obtaining products similar to those disclosed in D7.

3.5 The Board is prepared to accept that the method according to D7 may suffer from poor efficiency when the membrane has the form of hollow fibres and that the use of the modifying agent incorporated in advance in the non-coagulating liquid reduces such deficiency of operation. As a consequence, the Board can accept that the stated technical problem is indeed solved. It remains to be elucidated whether the solution proposed in present claim 1 is obvious in view of the cited prior art.

3.6 The process of claim 1 using as surface modifying agent an isocyanate group containing compound differs from D7 in that the surface modifying compound is incorporated in the non-coagulating liquid which is introduced into the central cavity in the hollow fibre during the discharge of the spinning dope. The modification is thus conducted during the production of the hollow fibre membrane with the result that the modifying agent adheres or fixes only onto the inner surface of said membrane. In contrast, D7 discloses a process wherein isocyanate is added to a membrane in an after-treatment in order to modify at least one of the surfaces of said membrane (abstract, page 7 last paragraph and claim 1).

The modification proposed by the invention is however considered to be derivable from D7 in the knowledge of D5.

As is clearly stated in its introductory part, D7 concerns blood dialysis membranes which may be in the

form of hollow fibre membranes ("Schlauchfolien", see page 1, paragraph 1). The explicit requirement that the process results in the modification of at least one surface of the fibre membrane can only be interpreted in the sense that, in the case of hollow fibre membranes, the modification should comprise the inner surface that comes into contact with blood. The general teaching of D7 therefore encompasses the modification of the inner surface of a hollow fibre membrane with an isocyanate containing compound, with the aim to reduce its transient leukopenia properties. It is conceded that a detailed method for achieving the modification of only the inner surface is not taught in D7. However, with this goal in mind, the skilled person would consider all the prior art documents concerning the modification of only one surface of a hollow fibre, regardless of its application. Thus, he would contemplate the teaching of D5. This was no longer disputed by the appellant during the oral proceedings.

The process disclosed in D5 for that purpose essentially involves a reaction between heparin and aldehyde-containing polymers for modifying the inner surface of a hollow fibre membrane (col. 7, lines 19-45). The method may involve a post-treatment (column 7, line 66 to column 8, line 4) or the alternative of carrying out the reaction *in situ*, during the manufacturing process of the hollow fibre (column 8, lines 11 to 13). In the latter mode, it is taught to incorporate the modifying agent into the core liquid which is extruded simultaneously with the spinning dope (claim 2). In the practice of said invention, the aldehyde-containing polymers can be prepared directly from the appropriate monomers (column 3, lines 24 to

34) or generated by the treatment of the polymer with periodic acid (column 4, lines 59 to 66). Thus, the statement at column 10, lines 1 to 2 ("These [sic] core solution can contain heparin to react based on the same principle") following the description of the production of hollow fibre with a core solution containing periodate (column 8, line 34 to column 10, line 1) must be interpreted as pertaining to the case involving polymers which already contain aldehyde groups to react with heparin and therefore do not require a pretreatment with periodate. Consequently, the Board is unable to accept the appellant's argument that D5 neither discloses nor suggests the use of a core solution containing a surface modifying agent which may adhere or fix to the inner surface of the hollow fibre during spinning.

A skilled person seeking a further method for modifying only one surface of the hollow fibre according to D7 would naturally consider the alternative offered in D5 to the post-treatment method and thus arrive at the invention by a straightforward combination of D7 with D5. Contrary to the appellant's assertions, there is no need for making successive selections of process parameters from D7 and/or D5 and any arbitrary combination of such isolated features.

As a consequence, the subject-matter of claim 1 is not considered to involve an inventive step.

The present case is not comparable with the cases cited by the appellant, where the Boards concerned recognised an inventive step. In case T 2/83 (OJ EPO 1984, 265), the Board accepted that the formulation of a new,

heretofore not recognised problem justified an inventive step even if the solution was obvious, once the problem was clearly stated (see item 6). Here, there is no unrecognised problem. In T 168/84 dated 17 September 1987 (not published in the OJ EPO), the Board answered in the negative to the question as to whether the skilled person would indeed recognise the value of isolated features from at least 3 documents out of a multiplicity of documents (see item 4.3). Here, the method disclosed in D5 is a natural alternative to the specifically exemplified method of D7, which the skilled person can see immediately. In T 229/85 (OJ EPO 1987, 237), it was warned against including pointers to the solution in the formulation of the technical problem. The inclusion of part of the solution offered by the invention would have necessarily resulted in an ex-post facto view being taken of inventive activity (see item 5). The problem here has not been formulated to include part of the solution. Lastly, in T 564/89 dated 10 February 1993 (not published in the OJ EPO) the Board held that the prior art citations do not foreshadow the particular structural features of the contested claim and that their possible combination should be disregarded as resulting from an ex-post facto analysis (see item 5.5). No ex-post facto analysis has to be adopted here. The Board's above finding is thus not in contradiction to the cases cited by the appellant.

4. *Second subsidiary request*

Claim 1 differs from claim 1 of the first subsidiary request only in the additional specification that the surface modifying compound also contains a fluorine

atom.

The Board, however, concurs with the respondent that although F-containing isocyanates are not explicitly mentioned, they are not excluded from the general wording in D7. Further, no special effect attributable to fluorine has been made out, either in the patent-in-suit or during the oral proceedings. As a consequence, the Board considers that the factual situation in respect of this request is substantially the same as the one concerning the first auxiliary request. The arguments leading to the finding of lack of inventive step for claim 1 of the preceding request thus apply mutatis mutandis to the subject-matter of present claim 1. The subject-matter of claim 1 of the second auxiliary request therefore is not considered to involve an inventive step.

5. *Third subsidiary request*

Claim 1 differs from claim 1 of the first subsidiary request only in the additional specification that the spinning dope is of cuprammonium cellulose.

The appellant has alleged that cellulose is present in the spinning dope as a complex with copper. Since the cellulose material used in D7 was not complexed, it was submitted that it could not be inferred from said document that isocyanate can be bound to the substrate in the complexed state. However, the Board agrees with the respondent that it was well known in the art that only a part of the hydroxy groups are complexed in cuprammonium cellulose, while the remaining hydroxy groups are still available for reaction, up until the

last process step of drying. The Board therefore considers that a skilled person would not have seen any deterrent but would have carried out the reaction of isocyanate with cuprammonium cellulose in situ as an alternative to post-treating the formed cellulose fibre, since he had a reasonable expectation of success. In this case, where a slight doubt could be rapidly dispelled with mere routine experimentation, there is no reason to give the appellant the benefit of the doubt. The skilled person may be cautious but he is not so cautious as to disregard a promising method without even checking it out where checking is easy. The other findings in the case of the first auxiliary request apply to the present auxiliary request as well, which request must therefore also be refused.

Decision T 219/83 (OJ EPO 1986, 211 and OJ EPO 1986, 328) discusses the burden of proof for the facts the parties rely upon (see item 12 of the reasons). It is not relevant to the present case since the appellant's allegation is not a fact which can be proven either way but merely a speculation as to what would put off a skilled person.

6. *Fifth subsidiary request*

6.1 The process of claim 1 is now restricted to the use of selected epoxy compounds as modifying agent. Since isocyanate containing compounds are not used in the claimed process, D7 is no longer relevant for the purpose of assessing inventive step in the present case (see also item 3.3 above). D8 is now considered to be the closest prior art document, in agreement with the submissions of both parties.

6.2 The process of claim 1 differs from D8 in the specification of selected epoxy compounds and in that these compounds are incorporated in the non-coagulating liquid.

6.3 The problem to be solved with respect to D8 is to provide a process for obtaining a further hollow fibre membrane having similar properties and being suitable for dialysis with reduced leukopenia. The appellant has also argued that the process solves to further problem of improving the physical properties of the product. However, this assertion was not substantiated and therefore not discussed further.

6.4 The appellant has filed experimental data showing that the use of the selected epoxy compounds according to claim 1 leads to hollow fibre membranes with reduced transient leukopenia. The Board is therefore satisfied that the stated technical problem is indeed solved by the present invention. This is not contested by the respondent.

6.5 The Board does not concur with the respondent that the proposed solution defined by the characterising features in claim 1 is obvious in view of the available prior art.

In D8, the same problem is solved by mixing differently substituted cellulose materials or by mixing substituted with non-substituted cellulose. As is correctly indicated by the respondent, one of the modified materials used in the known process is cellulose ether, which could be prepared by the reaction of cellulose with corresponding epoxy

compounds (see page 7, 3rd paragraph and the literature cited therein). However, it is clear and undisputed that the reaction with epoxy compounds is only one of the possible methods for producing cellulose ethers. It must also be noted that, in addition to cellulose ether, a number of other substituted cellulose materials are listed as preferred compounds (page 6, paragraph 1 to page 7, paragraph 2).

Document D8 solely discloses a process involving the mixing of different cellulose materials for adjusting the degree of substitution of the spinning dope. It fails to give the skilled person any incentive to consider, without the benefit of hindsight, the possibility of coating the inner surface of the hollow fibre instead of modifying the whole mass of the fibre membrane, let alone doing so by reacting that surface with specific epoxy compounds contained in the core solution.

In other words, the Board holds that D8 does not contain any pointer towards a possible combination with D5 or D7 and that the respondent has at most shown that the skilled person could have arrived at the claimed solution of the problem but not that he would have done so on the basis of these citations. The other documents cited during the opposition proceedings do not contain any more relevant information. This is not in dispute.

As a consequence, the Board has come to the conclusion that the subject-matter of claim 1 of the fifth subsidiary request involves an inventive step. Claims 2 to 10 are dependent claims relating to specific embodiments of that subject-matter. The patent can

therefore be maintained with these claims, after the necessary adaptation of the description. From this, it follows that the further auxiliary requests submitted by the Respondent need not be considered.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to maintain the patent with claims 1 to 10 submitted as fifth subsidiary request with the letter dated 4 February 1999 and a description to be adapted.

The Registrar: The Chairman:

S. Hue R. Spangenberg