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# Datasheet for the decision of 26 April 2016

**Case Number:** T 1165/13 - 3.3.08

**Application Number:** 99917435.2

**Publication Number:** 1073722

**IPC:** C12N9/00, C12P13/00

**Language of the proceedings:** EN

**Title of invention:**
PYRUVATE CARBOXYLASE OVEREXPRESSION FOR ENHANCED PRODUCTION OF OXALOACETATE-DERIVED BIOCHEMICALS IN MICROBIAL CELLS

**Patent Proprietor:**
THE UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC.

**Opponent:**
BASF SE

**Headword:**

**Relevant legal provisions:**
EPC Art. 114(2), 54(3)
RPBA Art. 13(1)

**Keyword:**

Main Request - novelty (no)
Auxiliary Requests 1 and 2 - admissibility (no)

**Decisions cited:**

G 0001/03, G 0002/10, T 0412/91, T 0943/93, T 0464/94, T 0446/00, T 1213/05, T 0005/08

**Catchword:**

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**Chambres de recours**

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**Case Number: T 1165/13 - 3.3.08**

# D E C I S I O N
# of Technical Board of Appeal 3.3.08
# of 26 April 2016

| | |
|---|---|
| **Appellant:** (Opponent) | BASF SE<br>67056 Ludwigshafen (DE) |
| **Representative:** | Bühler, Dirk<br>Maiwald Patentanwalts GmbH<br>Elisenhof<br>Elisenstraße 3<br>80335 München (DE) |
| **Respondent:** (Patent Proprietor) | THE UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC.<br>630 Boyd Graduate Studies Research Center,<br>Athens,<br>Georgia 30602-7411 (US) |
| **Representative:** | Potter Clarkson LLP<br>The Belgrave Centre<br>Talbot Street<br>Nottingham NG1 5GG (GB) |
| **Decision under appeal:** | **Interlocutory decision of the Opposition Division of the European Patent Office posted on 18 March 2013 concerning maintenance of the European Patent No. 1073722 in amended form.** |

**Composition of the Board:**

| | |
|---|---|
| **Chairman** | M. Wieser |
| **Members:** | P. Julià |
| | C. Heath |

## Summary of Facts and Submissions

I. European patent no. 1 073 722 is based on European patent application no. 99 917 435.2, published as International patent application WO 99/53035. The patent was opposed on the grounds set forth in Articles 100(a), (b) and (c) EPC. The opposition division decided to maintain the patent in amended form on the basis of an Auxiliary Request 2 filed on 22 November 2012. The Main Request (claims as granted) was considered not to fulfil the requirements of Article 54(3) EPC and Auxiliary Request 1 was found to contravene the requirements of Article 123(2) EPC.

II. An appeal was lodged by the opponent (appellant). With the statement setting out the Grounds of Appeal new evidence was filed (documents D31-D37).

III. In reply thereto, the patentee (respondent) filed a Main Request, Auxiliary Requests 1-5 and new evidence (documents D38-D43). The Main Request was identical to the request upheld by the opposition division.

IV. With reference to the Notice from the Vice-President DG3 dated 17 March 2008 (OJ EPO 2008, page 220), the respondent requested accelerated processing of the appeal proceedings and provided evidence to show a legitimate interest therefor. The request was granted by the board.

V. On 20 November 2015, the parties were summoned to oral proceedings and, in a communication pursuant to Article 15(1) RPBA annexed to the Summons, they were informed of the board's preliminary, non-binding opinion on substantive issues of the case.

VI. On 17 March 2016, the respondent informed the board, without filing substantive arguments, that it would attend the oral proceedings.

VII. On 23 March 2016, the appellant filed further submissions and informed the board that it would attend the oral proceedings.

VIII. On 18 April 2016, the respondent filed new evidence (documents D44-D46), re-numbered its former Auxiliary Requests 2-5 as Auxiliary Requests 3-6, and filed new Auxiliary Requests 2 and 7.

IX. Oral proceedings were held on 26 April 2016. During these proceedings, the respondent withdrew previous Auxiliary Requests 1-6, filed a new Auxiliary Request 1 and made its previous Auxiliary Request 7 its Auxiliary Request 2.

X. Claims 1, 6 and 7 of the **Main Request** read as follows:

"1. A method for making an oxaloacetate-derived biochemical comprising:

a) providing a cell that produces the biochemical;
b) transforming the cell with a nucleic acid fragment comprising a nucleotide sequence encoding an enzyme having pyruvate carboxylase activity, wherein said cell prior to transformation lacks an endogenous pyruvate carboxylase;
c) expressing the enzyme in the cell to cause increased production of the biochemical; and
d) isolating the biochemical from the cell.

6. The method of any of claims 1 to 5, wherein the oxalacetate-derived biochemical is selected from the

group consisting of an organic acid, an amino acid, a porphyrin and a pyrimidine nucleotide.

7. The method of any one of claims 1 to 5, wherein the oxalacetate-derived biochemical is selected from the group consisting of arginine, asparagine, aspartate, glutamate, glutamine, methionine, threonine, proline, isoleucine, lysine, malate, fumarate, succinate, citrate, isocitrate, α-ketoglutarate, formate and succinyl-CoA."

Claims 2-5 were directed to preferred embodiments of claim 1.

XI. Claims 2 to 5 of **Auxiliary Request 1** are identical to the respective claims of the Main Request. Claim 1 differs from claim 1 of the Main Request by the following sentence added at the end of the claim:

"..., wherein the biochemical is produced under aerobic conditions."

Claims 6 and 7 differ from the corresponding claims of the Main Request only in that the references to "*a porphyrin and a pyrimidine nucleotide*" in claim 6 and to "*malate, fumarate, succinate, formate*" in claim 7 are deleted.

XII. **Auxiliary Request 2** is identical to the Main Request, except for the following disclaimer at the end of claim 1:

"..., wherein when the nucleotide sequence encoding an enzyme having pyruvate carboxylase activity is derived from a *Corynebacterium*, the cell is not an *Escherichia coli* or a *Serratia marcenscens* cell."

XIII. The following documents are referred to in this decision:

D2: WO-A2-99/18228 (publication date: 15 April 1999);

D3: DE 197 43 894.6 (filing date: 17 September 1998);

D8: S.M. Park, "Investigation of Carbon Fluxes in Central Metabolic Pathways of *Corynebacterium glutamicum*", Ph.D. Thesis, M.I.T, June 1996;

D15: P.G. Peters-Wendisch et al., Microbiol., Vol. 143, pages 1095-1103, 1997;

D16: H.L. Kornberg, Biochem. J., Vol.99, pages 1-11, 1966;

D28: English translation of document D2;

D42: A.M. Sánchez et al., Biotechnol. Prog., Vol. 21, pages 358-365, 2005;

D43: Q. Wang et al., Biotechnol. Letters, Vol. 28, pages 89-93, 2006;

D44: Declaration of Mark A. Eiteman, signed on 18 April 2016.

XIV. The submissions of the appellant, insofar as they are relevant to the present decision, may be summarised as follows:

*Admissibility of new evidence*

Document D44 was filed eight days before the oral proceedings, thus at an extremely late stage of the appeal proceedings. The issues dealt with in this document, in particular as regards the mention of *Escherichia coli* and *Serratia marcescens* in document D2, had been extensively discussed during the entire procedure. No justification for the late filing of this document has been provided. The appellant did not object to the admissibility of documents D42 and D43.

*Main Request*
*Article 100(a) EPC (Article 54(3) EPC)*

Document D2 (and its English translation D28) disclosed that *Corynebacterium glutamicum* and *E. coli* were the most often and commonly used microorganisms for the production of amino acids. The document also disclosed a method for increasing the production of amino acids. Although the method was exemplified in *C. glutamicum*, there was an explicit reference to *E. coli* and *S. marcescens*. There was no suggestion (warning flag) in document D2 indicating to the skilled person that technical problems could be expected when using *E. coli* or *S. marcescens* instead of *C. glutamicum*. Post-published evidence was on file showing that no problems were encountered when using *E. coli* strains.

Document D2 disclosed two alternatives for increasing the pyruvate carboxylase (PYC) activity. The first one was the modification/alteration of an endogenous PYC gene. The second alternative consisted in increasing the copy number of the PYC gene (last paragraphs on pages 5 and 6 of document D28). The use of the determinate article "the" in this second alternative could not be interpreted as requiring the necessary presence of an endogenous PYC gene. This alternative

concerned also microorganisms which were known to lack an endogenous PYC gene, such as *E. coli* and *S. marcescens* explicitly mentioned in document D2, which were transformed with a nucleic acid encoding a PYC enzyme. Recombinant transformation was a standard technique and routine practice in the field, in particular for *E. coli*, a well-known and commonly used strain. There was no reason for a skilled reader of document D2 to consider the reference to *E. coli* as technically not real or erroneous. The case law cited by the respondent in this respect was not applicable to the present situation as, contrary to the cases underlying these decisions, the reference to *E. coli* in document D2 was fully correct, as shown by post-published evidence on file. Moreover, it was explicit, clear and not contradictory, so that the subject-matter (use of *E. coli* and *S. marcescens*) was directly and unambiguously derivable from document D2.

*Admissibility of Auxiliary Request 1*

Auxiliary Request 1 was not admissible as it was filed at the oral proceedings, thus at the latest possible stage. Although the respondent had requested to accelerate the present proceedings, claim requests had been filed in a piecemeal manner, thereby making it difficult for the appellant to prepare its case. Auxiliary Request 1 could have been filed at an earlier stage of the proceedings. Indeed, the feature now introduced into step (d) of claim 1 was present in a dependent claim of one of the auxiliary requests filed by the respondent in preparation for the oral proceedings before the opposition division. This request was not admitted into the opposition proceedings and not further pursued by the respondent.

Auxiliary Request 1 was also not admissible for substantive reasons. It did not overcome the objection under Article 54(3) EPC raised against the Main Request. Document D2 was concerned with the production of lysine, an amino acid that was known to be produced only under aerobic conditions. Moreover, it gave rise to a new objection under Article 123(2) EPC. Claim 1 referred to oxaloacetate-derived biochemicals in general and thus comprised also biochemicals that were described in the application as filed as being produced under anaerobic conditions only.

*Admissibility of Auxiliary Request 2*

The objection under Article 54(3) EPC based on document D2 was raised in the Notice of opposition. However, a request disclaiming the disclosure of this document was filed for the first time in the appeal procedure, eight days before the oral proceedings. The relevance of document D2 and the objection based thereon was long known to the respondent and the introduction of a disclaimer, a standard practice to delimit the scope of a claim with regard to a colliding document, had been available at earlier stages of the procedure. A great number of divergent auxiliary requests had been filed during the entire procedure but none of them contained a disclaimer.

Moreover, the presence of a disclaimer required to consider whether the double test and the conditions set out in decisions G 1/03 (OJ EPO 2004, page 413) and G 2/10 (OJ EPO 2012, page 376) were fulfilled. The disclaimer introduced into Auxiliary Request 2 was not straightforward and required to examine whether it fulfilled this test. *Prima facie,* the disclaimer raised problems under Article 123(2) EPC since the combination

of claims 1 and 6 resulted in disclaiming subject-matter not actually disclosed in document D2.

XV. The submissions of the respondent, insofar as they are relevant to the present decision, may be summarised as follows:

*Admissibility of new evidence*

Document D44 was filed in direct reply to new issues raised by the board in its communication. It was highly relevant and should thus be admitted into the proceedings.

*Main Request*
*Article 100(a) EPC (Article 54(3) EPC)*

Document D2 described the general knowledge of a skilled person at the priority date of the patent. It stated that the presence of PYC activity in *C. glutamicum* had been only recently found and that, in view of the properties of this enzyme, it was expected that it would have no influence on the production of amino acids (page 4, line 17 to page 5, line 4 of document D28). This expectation was surprisingly contradicted by the findings of document D2, namely that an increase in PYC activity increased the production of amino acids (page 5, lines 5-15 of document D28). If these findings were surprising for a microorganism having an endogenous PYC, the surprise was even greater for microorganisms lacking a PYC, since nothing in document D2 supported a leap from microorganisms with endogenous PYC to microorganisms lacking the enzyme. The skilled person would have considered the mention of *E. coli* and *S. marcescens* in the sentence bridging pages 6-7 of document D28 to be

only a hypothetical possibility, which, at best, was not technically real or, at worst, merely erroneous (cf. "Case Law of the Boards of Appeal of the EPO", 7th edition 2013, pages 105-106 and 115, with reference to, *inter alia*, T 943/93 of 30 August 1994 and T 412/91 of 27 February 1996).

Indeed, document D2 referred to two alternatives for increasing PYC activity, one by positively influencing the expression of the endogenous gene or the other by increasing the gene copy number (last paragraphs on pages 5 and 6 of document D28). The use of the determinate article "the" in the second alternative assumed the presence of an endogenous PYC gene and excluded thereby those microorganisms which were known in the art to lack an endogenous PYC gene, such as *E. coli* and *S. marcescens*. The mention of these microorganisms in this context was a clear contradiction which set an unmistakable flag for a skilled person, warning him/her that the teaching with regard to *C. glutamicum* could not be directly applied to microorganisms lacking the PYC gene. The less so, since these two types of microorganisms (with/without endogenous PYC) were known to have different central/ metabolite pathways and the skilled person was well aware of the network rigidity of these pathways. The effects on amino acid production obtained by the transformation/introduction of a nucleic acid encoding a PYC enzyme into *E. coli* or *S. marcescens* were unknown and fully unpredictable from the results reported for *C. glutamicum*. Such an extrapolation was far too simplistic and technically not realistic.

The disclosure and the examples of document D2 were exclusively concerned with microorganisms having an endogenous PYC (*C. glutamicum*). Although the claims of

document D2 referred to microorganisms in general, they did not specifically mention *E. coli*, *S. marcescens* or any other microorganism lacking the PYC enzyme. The reference in document D2 to *E. coli* and *S. marcescens*, when put in its actual context, was technically meaningless and conveyed to the skilled person an inherent impossibility that the teachings derived from *C. glutamicum* could actually work in these strains. In line with the case law of the Boards of Appeal, which required the claimed subject matter to be directly and unambiguously disclosed, document D2 was not novelty destroying.

*Admissibility of Auxiliary Request 1*

As regards procedural matters, the filing of requests at oral proceedings before a Board of Appeal was not unusual, the less so since it was the last opportunity for a patentee to have its patent maintained. Auxiliary Request 1 was based on a former Auxiliary Request 5 filed in reply to appellant's Grounds of Appeal, i.e. at the beginning of the appeal proceedings, and it was thus part of the proceedings (Article 12(2) RPBA). The amendments introduced into Auxiliary Request 1 (deletion of specific subject-matter from dependent claims 6-7) were clear, straightforward in nature, and limited the scope of the claims. These amendments were made in direct reply to the objections raised by the board only at the oral proceedings.

As regards substantive matters, the feature added into step (d) of claim 1 represented a serious attempt to overcome the novelty objection based on document D2. In the sentence in which *E. coli* and *S. marcescens* were mentioned, there was no reference to aerobic conditions. These conditions were neither explicitly

disclosed in the context of this citation nor implicitly derivable therefrom, since they were not the inevitably teaching of document D2. *E. coli* strains were known in the art to be used under both aerobic and anaerobic conditions. The requirement to carry out the method of claim 1 under aerobic conditions implicitly excluded all oxaloacetate-derived biochemicals that could be produced only under anaerobic conditions. When applying the strict approach required by the Boards of Appeal for a document to be novelty destroying, namely to disclose the claimed subject-matter beyond any doubt, Auxiliary Request 1 was novel over document D2 so that the novelty objection raised against the Main Request was overcome.

*Admissibility of Auxiliary Request 2*

Auxiliary Request 2 represented the last opportunity for the respondent to save its patent. The filing of a request with a disclaimer was not an abuse of procedure, since it concerned matter that had been disputed from the beginning of the procedure and could not surprise the appellant. The disclaimer was introduced in reply to the board's communication, wherein the board for the first time gave its preliminary opinion on document D2, which was contrary to the decision taken by the opposition division. The disclaimer represented a serious attempt to overcome the novelty objection based on document D2. It addressed the disclosure of this document, did not disclaim anything more than what was disclosed therein, narrowed only the claimed subject-matter, and fulfilled the tests and conditions set out in decisions G 1/03 (*supra*) and G 2/10 (*supra*) (Articles 84 and 123(2),(3) EPC).

XVI. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

XVII. The respondent (patentee) requested that the appeal be dismissed (Main Request), or that the decision under appeal be set aside and the patent be maintained based on Auxiliary Requests 1 or 2, filed during oral proceedings on 26 April 2016.

## Reasons for the Decision

*Admissibility of new evidence*

1. In the oral proceedings the respondent intended to refer to documents D42-D44, all filed in appeal procedure.

2. Documents D42-D43 were filed in reply to appellant's Grounds of Appeal and the appellant has not objected to their admissibility. These documents are therefore admitted into the appeal proceedings.

3. Document D44 has been filed eight days before the oral proceedings in reply to the board's communication pursuant to Article 15(1) RPBA. This communication was annexed to the "*Summons to attend Oral Proceedings*" issued by the board four months before the scheduled date for these proceedings. Document D44 is thus late filed. Document D44 is a declaration addressing the objection raised under Article 54(3) EPC based on document D2. This objection was on file from the beginning of the opposition procedure and was further pursued by the appellant in its Grounds of Appeal. In its communication, the board informed the parties of

its preliminary, non-binding opinion on this objection but did not raise any new issue. The contents of document D44 are *prima facie* not more relevant than the arguments already on file. Therefore, neither the nature nor the content of document D44 justify its late filing. For all these reasons, the board, in exercising its discretion under Article 13(1) RPBA, decides not to admit document D44 into the appeal proceedings.

*Main Request (claims found to be allowable by the opposition division)*

*Article 100(a) EPC; Article 54(3) EPC*

4. It is not disputed that document D2, the sole document cited under Article 54(3) EPC against claims 1-3 and 6-7 of the Main Request, enjoys the priority of document D3.

Document D2 discloses a method for increasing the microbial production of amino acids of the aspartate and/or glutamate families in which the activity of a pyruvate carboxylase (PYC) enzyme of an amino acid producing microorganism is increased. The cloning of the PYC gene of *Corynebacterium glutamicum* is described in Example 1 and the nucleotide sequence of the PYC gene and the encoded amino acid sequence (SEQ ID NOs: 1 and 2, respectively) are reported in Example 2. Example 3 discloses the overexpression of the PYC gene from *C. glutamicum* in two *C. glutamicum* strains, the wild-type *C. glutamicum* ATCC 13032 and the *C. glutamicum* strain SP 733, a PYC defect mutant of the restriction negative *C. glutamicum* strain R 127. This defect is complemented by introduction of the PYC gene from *C. glutamicum*, whereby reference is made to document D15. In Examples 4-6, the overproduction of the PYC genes in the *C.*

*glutamicum* strains DG 52-5 (lysine producing strain), DM 368-3 (threonine producing strain), and the wild-type strain ATCC 13032, is shown to result in an increased production of lysine (Table 2), threonine and homo-serine (Table 3), and glutamate (Table 4), respectively.

5. The teaching of document D2 is not limited to the subject-matter of the Examples as can be seen from the claims and from the repeated use of terms like "*vorzugsweise*" and "*insbesondere*" ("*preferably*" and "*especially*") in the description, when reference is made to the PYC gene, the transformed host cells and the "*preferred*" amino acid producing strains (cf. page 6, lines 7, 9, 18, 21, 26 and 28, page 7, line 25; corresponding to page 7, lines 1, 3, 12, 16, 22 and 24, page 9, line 1 in document D28). Explicit reference is also made to the use of "*Escherichia coli oder Serratia marcescens*" as host cells for transformation with the PYC gene (cf. page 6, line 6-10 of document D2; page 6, line 23 to page 7, line 2 of document D28).

6. It is not contested that *E. coli* and *S. marcescens* were known in the prior art as having no endogenous PYC gene (cf. paragraph bridging pages 5-6 of the decision under appeal and prior art references cited therein). Thus, although the authors of document D2 were well aware of this difference between *C. glutamicum* and *E. coli/S. marcescens*, these latter strains have been explicitly cited as host cells to be transformed by a PYC gene in order to increase amino acid production.

7. However, in line with the decision of the opposition division, the respondent argues that, due to this well-known difference, a skilled person would have considered this reference to *Escherichia coli* and

*Serratia marcescens* in document D2 as erroneous and misleading, or, at best, as not enabled.

In support of this argument, the respondent refers to the two methods disclosed in document D2 for increasing the PYC activity. Whilst the first method is described as "t*he genetic alteration of the pyruvate-carboxylase to increase the enzyme activity* [that] *is effected preferably by mutation of the* ***endogenous*** *gene*" (emphasis by the board) (cf. page 5, lines 1-2 of document D2; page 5, lines 16-18 of document D28), and thus excludes microorganisms without endogenous PYC gene, the second method is based on "*increasing the gene copy number and/or by reinforcing regulatory factors which positively influence the expression of* ***the*** *gene*" (emphasis by the board) (cf. page 5, lines 10-12 of document D2; page 5, lines 23-25 of document D28). According to the respondent, the determinative article "*the*" in this context refers to the endogenous PYC gene and provides an indication (warning flag) that the reference to *E. coli* and *S. marcescens* as host cells is contradictory, not in line with the disclosure of document D2 and, therefore, an error.

8. The board does not follow respondent's interpretation and sees no "warning flag" in the use of the determinative article "*the*". The term "*increasing the gene copy number ... of the gene*" allows to start from the number "*zero*" and to include thereby strains having no endogenous PYC gene. The use of the determinative article "*the*" in this context is understood as referring to the use of "*the*" PYC gene from *C. glutamicum* which is disclosed and rendered available to the skilled person by document D2. The term is not interpreted as requiring a host cell to have an endogenous PYC gene and thereby excluding all possible

host cells lacking this gene. There is no reason for a skilled person to regard the reference to *E. coli* and *S. marcescens* in this context as "*erroneous*" or "*a mistake*" and to "*immediately dismiss it*", as argued by the respondent.

9. This is all the more so since, as next to *C. glutamicum*, *E.coli* and *S. marcescens* are among the few microorganisms most commonly used for industrial production of amino acids in the prior art (cf. page 1, last paragraph of document D2; paragraph bridging pages 1-2 of document D28; and page 31, Table 2.1 of document D8). *E. coli* is one of the microorganisms best known and described in the art, its biochemistry/genetics are well-characterized and understood, and for which detailed gene manipulation techniques have been disclosed. Studies on the central pathways of *E. coli* metabolism - of the wild-type strain as well as of *E. coli* mutant strains with specific enzymatic dysfunctions - were long known to the skilled person, including the routes for provision of energy and cell components during growth on several different media (cf. *inter alia*, document D16). It is in the light of this large body of prior art that the citation of *E. coli* and *S. marcescens* in document D2 is not considered to be erroneous or a mistake and to be enabling.

10. Respondent's argument that, if a skilled person was already surprised by finding that the PYC enzyme influences the production of amino acids in *C. glutamicum*, a microorganism with an endogenous PYC gene, the surprise would have been even greater to find out that the same works in microorganisms having no endogenous PYC gene, is of no merit in the light of the clear and explicit disclosure in document D2. The citation of *E. coli* and *S. marcescens* in the particular

context of this document without any further comment or observation, even though the authors of document D2 were well aware of the fact that none of these microorganisms has an endogenous PYC gene (*supra*), shows that no surprise was actually expected when extrapolating the results obtained in *C. glutamicum* to other well-known amino acid producing microorganisms such as *E. coli* and *S. marcescens*. There is no inherent incoherence or inconsistency in the disclosure of document D2.

11. Moreover, there is also evidence on file showing that a skilled person would have actually encountered no real technical difficulties when following the teachings of document D2 and using *E. coli* or *S. marcescens* as host cells. Indeed, the patent itself shows that no problems were encountered using several *E. coli* strains, including the wild-type *E. coli* MG 1655 strain (cf. Examples I-IV, Tables 1-5 of the patent, and, *inter alia*, post-published documents D42 and D43). Therefore, the case law referred to by the respondent stating that non-enabling prior art is not novelty-destroying, does not apply to the present case, since there is ample evidence on file showing that the disclosure of document D2 is enabling. The board is thus convinced beyond doubt that the claimed subject-matter is directly and unambiguously disclosed in document D2 in an enabling manner (cf. "Case Law", *supra*, I.C.3.1, page 104; and, *inter alia*, decisions T 464/94 of 21 May 1997, point 16 of the Reasons, and T 1213/05 of 27 September 2007, point 73 of the Reasons).

12. Thus, the Main Request does not fulfil the requirements of Article 54(3) EPC.

*Admissibility of Auxiliary Request 1*

13. Auxiliary Request 1 is based on former Auxiliary Request 5, filed in reply to appellant's Grounds of Appeal, from which it differs by the deletion of some subject-matter from dependent claims 6-7, to bring these claims in line with claim 1 which is restricted to a method "*wherein the biochemical is produced under aerobic conditions*". This deletion has been carried out only at oral proceedings, after the board had indicated that the former Auxiliary Request 5 seemed to contravene the requirements of Article 123(2) EPC.

14. In the present appeal procedure the respondent, who has requested accelerated processing, has filed five new auxiliary requests, and, only eight days before oral proceedings, two additional auxiliary requests. None of these requests contained the amendments now introduced at the oral proceedings into Auxiliary Request 1.

15. This chain of events is not in line with the function of an appeal proceedings as stated in the established case law of the Boards of Appeal (cf. "Case Law", *supra*, IV.E.4, page 984 *et seq., inter alia*, T 5/08 of 10 November 2010, points 11-20 of the Reasons). As for the respondent's argument that this request represents its "last chance" to save the patent, it has been stated by the Boards of Appeal that there is no established "last chance" doctrine or any absolute right of a patentee to such a "last chance" (cf. *inter alia*, decisions T 5/08, *supra*, point 18 of the Reasons, T 446/00 of 3 July 2003, point 3.3 of the Reasons).

16. Moreover, Auxiliary Request 1 does not *prima facie* overcome the objection raised under Article 54(3) EPC with regard to the main request, which would remain open for substantive examination.

17. Therefore, the board, in exercising its discretion under Article 114(2) EPC and Article 13(1) RPBA, decides not to admit Auxiliary Request 1 into the proceedings.

*Admissibility of Auxiliary Request 2*

18. Auxiliary Request 2 was originally filed as Auxiliary Request 7 eight days before the oral proceedings and is thus late filed. Claim 1 of this request contains a disclaimer tending to disclaim the subject-matter disclosed in document D2 which is relevant under Article 54(3) EPC. Although the objection under Article 54(3) EPC based on document D2 was raised at the very beginning of the opposition proceedings, none of the numerous claim requests filed by the respondent at earlier stages of the opposition/appeal procedure, contained a disclaimer.

19. The introduction of a disclaimer requires, as a first step, to examine whether all the conditions set out in the decisions G 1/03 (OJ EPO 2004, page 413) and G 2/10 (OJ EPO 2012, page 376) are fulfilled. In particular, according to decision G 1/03 (*supra*, point 3 of the Reasons), the disclaimer should not remove more than is necessary to restore novelty and, both the disclaimer and the claim containing it, should fulfil the requirements of conciseness and clarity of Article 84 EPC. Moreover, according to decision G 2/10 (*supra*), the subject-matter remaining in the claim after introduction of the disclaimer must *per se* fulfil the requirements of Article 123(2) EPC.

20. In the present case, it seems *prima facie* questionable whether the disclaimer introduced into claim 1 is clear

and unambiguous ("*derived from*"), whether it succeeds in disclaiming all relevant subject-matter disclosed in document D2 (cf. point 5 *supra*), and/or whether it actually goes beyond the disclosure of document D2 and disclaims subject-matter not disclosed in this document. The argument concerning respondent's "last chance" has already been addressed by the board in the context of Auxiliary Request 1 above.

21. The board, in exercising its discretion under Article 114(2) EPC and Article 13(1) RPBA, decides not to admit Auxiliary Request 2 into the proceedings.

**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

A. Wolinski M. Wieser

Decision electronically authenticated