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D E C I S I O N
of 9 August 2001

Case Number: T 0958/98 - 3.3.1

Application Number: 91100696.3

Publication Number: 0439096

IPC: C07D 499/12

Language of the proceedings: EN

Title of invention:

Improvements in or relating to beta lactam production

Applicant:

Biochemie Gesellschaft m.b.H.

Opponent:

-

Headword:

Lactam/BIOCHEMIE

Relevant legal provisions:

EPC Art. 111(1), 123(2)

Keyword:

"Extension beyond the content of the application as filed (no)
- after amendmendment"

Decisions cited:

-

Catchword:

-



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Boards of Appeal

Chambres de recours

Case Number: T 0958/98 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 8 August 2001

Appellant: Biochemie Gesellschaft m.b.H
6250 Kundl (AT)

Representative: Wymann, Gérard
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 6 May 1998 refusing
European patent application No. 91 100 696.3
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: J. M. Jonk
Members: R. Freimuth
M. K. S. Aúz Castro

Summary of Facts and Submissions

- I. The appeal lodged on 3 July 1998 lies from the decision of the Examining Division posted on 6 May 1998 refusing European patent application No. 91 100 696.3 (European publication No. 439096).
- II. The decision under appeal was based on claims 1 to 16 submitted on 8 April 1998 according to the then pending request. The Examining Division found that the claims, in particular independent claim 1 as amended, contained subject-matter which extended beyond the content of the application as filed, thus contravening Article 123(2) EPC.
- III. In a communication from the Board pursuant to Article 11(2) of the rules of procedure of the Boards of Appeal, the Appellant's attention was drawn to additional aspects and objections in the assessment of the requirements of Article 123(2) EPC.
- IV. At the oral proceedings before the Board, held on 9 August 2001, the Appellant (Applicant) submitted fresh claims 1 to 11 superseding any previous request. Independent claim 1 as amended read as follows:

"1. A process for the production of a 6-alpha-aminoacyl-penicillin or 7-alpha-aminoacyl-desacetoxycephalosporin in the absence of a halogenated solvent comprising the steps of (i) producing a mixed carboxylic acid anhydride by reacting a N-substituted vinyl-alpha-amino acid or its salt with an appropriate acylating agent in a methyl-(C₂₋₄)alkyl-ketone, di-(C₂₋₄)alkyl-ketone, (C₁₋₃)alkanoic acid butyl ester, an aromatic hydrocarbon or a mixture thereof as a solvent,

and in the presence of a co-solvent selected from the group consisting of an organic amide, N-methylpyrrolidine and tetramethylurea, and (ii) reacting the mixture obtained in step (i) with a solution or suspension in an organic solvent miscible with the solvent system used in step (i) of a salt of 6-APA or 7-ADCA, (iii) isolating the 6-alpha-aminoacyl-penicillin or 7-alpha-aminoacyl-desacetoxycephalosporin obtained."

Claims 2 to 11 were dependent on claim 1.

- V. The Appellant argued that the fresh claims as amended overcame the objections raised. He submitted that the amendments made found support in the application as filed and referred in particular to original claims 6, 7 and 13 and original pages 4 to 8.
- VI. The Appellant requested that the decision under appeal be set aside and a patent be granted on the basis of claims 1 to 11 submitted in the oral proceedings.
- VII. At the end of the oral proceedings the decision of the Board was given orally.

Reasons for the Decision

- 1. The appeal is admissible.
- 2. The only issue arising from this appeal is whether or not the claims as amended satisfy the requirements of Article 123(2) EPC, which is stated in the decision under appeal as being the sole ground for refusal of the present application.

3. *Amendments (Article 123(2) EPC)*

3.1 The subject-matter of claim 1 is based on original claim 2 and page 4, paragraph 3 of the application as filed. The reaction in step (i) of the salt of the N-substituted vinyl-alpha-amino acid is supported by page 5, paragraph 2 of the application as filed. The particular solvents specified in step (i) and the use of a mixture thereof are found on page 6, last paragraph and on page 7, paragraph 1 of the application as filed, respectively. The presence of a particular co-solvent specified in step (i) is backed up by original page 7, paragraphs 3 and 4. Reacting the mixture obtained in step (i) in the following step (ii) finds support on page 7, paragraph 7 of the application as filed. Original page 8, paragraph 3 provides a proper basis for the feature of reacting in step (ii) a solution or suspension in an organic solvent miscible with the solvent system used in step (i) of a salt of 6-APA or 7-ADCA and original page 9, paragraph 2 backs up the isolation of the final products according to step (iii).

The presence of a non-halogenated solvent in step (ii) required according to the application as filed is no longer explicitly indicated in claim 1 for the reason of redundancy since the further features specified in this claim already satisfy that requirement. Thus, a solvent is necessarily present in step (ii) as both reactants of this step, namely the mixture obtained in step (i) and the solution or suspension of a salt of 6-APA or 7-ADCA, mandatorily comprise a solvent. Claim 1 stipulating the absence of a halogenated solvent throughout the whole process claimed, the solvent present in step (ii) is necessarily

non-halogenated. For that reason a non-halogenated solvent is inevitably present in step (ii) of claim 1 with the consequence that the additional explicit indication of that feature in this claim is redundant and, hence, superfluous.

3.2 The particular protecting groups of the N-substituted vinyl-alpha-amino acid defined in claim 2 are disclosed on page 5, paragraph 1 of the application as filed. The further claims 3 and 5 find a basis in original claims 6 and 7. Page 6, paragraphs 1 and 4, page 7, paragraphs 4 and 5 and page 8, paragraphs 3 and 6 of the application as filed support the preferred embodiments of claims 4 and 6 to 10, respectively. Original claim 13 provides a proper basis for claim 11 wherein the substituent R^1_5 has been reworded in accordance with standard chemical nomenclature.

3.3 For these reasons, the Board concludes that the claims 1 to 11 as amended meet the requirements of Article 123(2) EPC.

4. *Remittal*

Having so decided, the Board has not taken a decision on the whole matter since the decision under appeal was solely based on Article 123(2) EPC. As the Examining Division has not yet ruled on the other requirements for granting a European patent, the Board considers it appropriate to exercise its power conferred to it by Article 111(1) EPC to remit the case to the Examining Division for further prosecution on the basis of the claims according to the pending request, in order to enable the first instance to decide on the outstanding issues.

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 for further prosecution on the basis of claims 1 to 11 submitted in the oral proceedings.

The Registrar:

The Chairman:

N. Maslin

J. Jonk