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D E C I S I O N
of 16 December 1997

Case Number: T 0615/95 - 3.3.1

Application Number: 89309705.5

Publication Number: 0361817

IPC: C07D 219/04

Language of the proceedings: EN

Title of invention:

Nucleophilic polysubstituted aryl acridinium esters, conjugates,
production and uses thereof

Applicant:

Ciba Corning Diagnostics Corp.

Opponent:

-

Headword:

Acridinium esters/CIBA CORNING

Relevant legal provisions:

EPC Art. 84, 123(2)

Keyword:

"Amendment of a generic chemical formula"
"Admissible limitation"

Decisions cited:

G 0001/93, T 0495/91, T 1000/92

Catchword:

1. If there are three independent lists of sizeable length specifying distinct meanings for three residues in a generic chemical formula in a claim, then the deletion in each list of one originally disclosed meaning is allowable under Article 123(2) EPC if it does not result in singling out any hitherto not specifically mentioned individual compound or group of compounds, but maintains the remaining subject-matter as a generic group of compounds differing from the original group only by its smaller size. Such shrinking of the generic group of chemical compounds is not objectionable if these deletions do not lead to a particular combination of specific meanings of the respective residues which was not disclosed originally or, in other words, do not generate another invention (see no. 6 of the Reasons for the Decision).

2. An Examining Division's decision should not be supplemented normally by annexes dealing with issues having no relation to the issues dealt with in the reasons for this decision (see no. 14 of the Reasons for the Decision).



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Boards of Appeal

Chambres de recours

Case Number: T 0615/95 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 16 December 1997

Appellant: Ciba Corning Diagnostics Corp.
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Medfield
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Decision under appeal: Decision of the Examining Division of the European Patent Office posted 6 March 1995 refusing European patent application No. 89 309 705.5 pursuant to Article 97(1) EPC.

Composition of the Board:

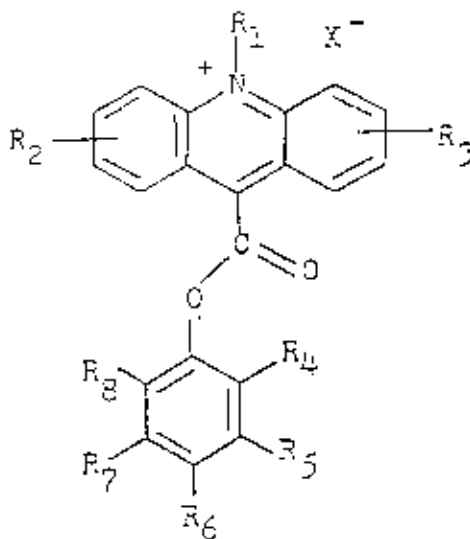
Chairman: A. J. Nuss
Members: P. Krasa
W. Moser

Summary of Facts and Submissions

I. This appeal lies from the Examining Division's decision refusing the European patent application No. 89 309 705.5 for not complying with the requirements of Article 123(2) EPC.

The application as originally filed comprised 15 claims, Claims 1 and 2 of which read:

"1. An acridinium ester characterised in that it corresponds to the following general formula:



wherein

R₁ represents alkyl, alkenyl, alkynyl, aryl or aralkyl, which may contain one or more heteroatoms;

R₂, R₃, R₅ and R₇ independently represent hydrogen, amino, amido, acyl, alkoxy,

hydroxyl, $-\text{CO}_2$, halide, nitro, $-\text{CN}$, $-\text{SO}_3$, $-\text{NHC}(=\text{O})\text{R}$,
 $-\text{C}(=\text{O})\text{R}$, $-\text{C}(=\text{O})\text{OR}$, $-\text{C}(=\text{O})\text{NHR}$, or SCN ;

wherein

R represents alkyl, alkenyl, alkynyl, aryl or aralkyl,
which may contain one or more heteroatoms;

R_4 and R_8 independently represent hydrogen, alkyl,
alkenyl, alkynyl, aralkyl or alkoxy;

R_6 represents Q-R-Nu , $\text{Q-R}(-\text{I})-\text{Nu}$ or Q-Nu , wherein Q
represents $-\text{O}-$, $-\text{S}-$, $-\text{NH}-$,

$-\text{C}(=\text{O})-$, $-\text{NHC}(=\text{S})\text{NH}-$, $-\text{NHC}(=\text{O})\text{NH}-$, $-\text{NHC}(=\text{O})\text{O}-$,
 $-\text{NHC}(=\text{O})-$, $-\text{C}(=\text{O})\text{NH}-$, diazo or $-\text{NHC}(=\text{NH}_2)-$;

R is as defined above; I represents $-\text{SO}_3$, $-\text{OSO}_3$, $-\text{PO}_3$,
 $-\text{OPO}_3$, or $-\text{CO}_2$;

Nu represents a nucleophilic group; and

X represents an anion.

2. An acridinium ester as claimed in claim 1 wherein
 R_1 represents alkyl, alkenyl, alkynyl or aryl, which may
contain up to 24 carbon atoms and/or may contain up to
20, preferably up to 10, heteroatoms, which may be
selected from nitrogen, oxygen, phosphorus and sulfur;

R_2 , R_3 , R_5 and R_7 independently represent hydrogen,
amino, $-\text{CO}_2$, $-\text{CN}$, $\text{C}_1\text{-C}_4$ alkoxy, nitro, halide, $-\text{SO}_3$ or
 SCN ;

R_4 and R_8 independently represent alkyl, alkenyl,

alkynyl or alkoxy which may contain up to 8 carbon atoms;

X represents halide, CH_3SO_4^- , OSO_2F^- , $\text{OSO}_2\text{CF}_3^-$, $\text{OSO}_2\text{C}_4\text{F}_9^-$, or p- $\text{OSO}_2\text{-C}_6\text{H}_4\text{-CH}_3$;

R may contain up to 24 carbon atoms and/or may contain up to 20, preferably up to 10, heteroatoms, which may be selected from nitrogen, oxygen, phosphorus and sulfur; and

Nu represents amino, hydroxyl, sulfhydryl, active methylene, or an organo-metallic moiety."

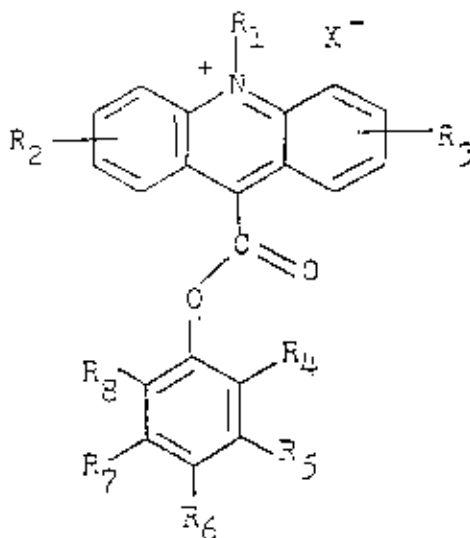
- II. The Appellant, in the course of the examination proceedings, submitted various sets of amended claims, all of which were objected to by the Examining Division for not complying with the requirements of Article 123(2) EPC. The decision under appeal was eventually based on claims as amended by the Appellant's letter of 10 August 1993. Claim 1 thereof differed from Claim 1 as originally filed essentially by the deletion of the meaning "hydrogen" from the definitions of R_4 and R_8 , and by the insertion of the disclaimer "provided that, when R_6 represents Q-Nu, Nu represents other than hydroxyl" at the end of the definition of Nu.

The Examining Division held, that these amendments were not in compliance with the requirements of Article 123(2) EPC as neither the limitations of R_4 and R_8 nor the disclaimer introduced into R_6 had a basis in the application as filed.

In an "annex" to the decision, the Examining Division listed several objections which were to be overcome by the Appellant as a precondition for an interlocutory revision under Article 109 EPC.

- III. In the Grounds of Appeal, the Appellant in essence argued that the deletion of hydrogen from the definitions of R_4 and R_8 was an admissible amendment under Rule 88 EPC and, moreover, had a basis in the first complete paragraph on page 3 of the application as filed. In respect to the disclaimer incorporated into the definition of R_6 , the Appellant submitted that this was an allowable disclaimer to exclude novelty destroying matter as disclosed in EP-A-0 263 657 and, moreover, amounted only to the deletion of an alternative which had already clearly been disclosed on page 3 of the application as filed.
- IV. By a letter of 1 November 1995, the Appellant submitted a new set of claims, Claim 1 of which was identical with Claim 1 of the Appellant's letter of 10 August 1993 (see above no. II).
- V. During the oral proceedings, which took place on 16 December 1997, the Appellant, upon having been made aware by the Board of another possible objection under Article 123(2) EPC and possible objections under Article 84 EPC, submitted a further amended set of 15 claims, Claims 1 and 2 of which read:

"1. An acridinium ester characterised in that it corresponds to the following general formula:



wherein

R₁ represents alkyl, alkenyl, alkynyl or aryl, which contain up to 24 carbon atoms and which may contain up to 20 heteroatoms selected from nitrogen, oxygen, phosphorus and sulfur, or aralkyl which may contain one or more heteroatoms;

R₂, R₃, R₅ and R₇ independently represent hydrogen, amino, amido, acyl, alkoxy,

hydroxyl, -COOH, halide, nitro, -CN, -SO₃H, -NHC(=O)R, -C(=O)R, -C(=O)OR, -C(=O)NHR, or -SCN;

wherein

R represents alkyl, alkenyl, alkynyl or aryl, which contain up to 24 carbon atoms and which may contain up to 20 heteroatoms selected from nitrogen, oxygen, phosphorus and sulfur, or aralkyl which may contain one or more heteroatoms;

R₄ and R₈ independently represent alkyl, alkenyl, alkynyl, aralkyl or alkoxy, which contain up to 8 carbon atoms;

R₆ represents Q-R-Nu, Q-R(-I)-Nu or Q-Nu, wherein Q represents -O-, -S-, -NH-,

-C(=O)-, -NHC(=S)NH-, -NHC(=O)NH-, -NHC(=O)O-,
-NHC(=O)-, -C(=O)NH-, diazo or -NHC(=⁺NH₂)-;

R is as defined above; I represents -SO₃H, -OSO₃H,
-PO(OH)₂, -OPO(OH)₂, or -COOH;

Nu represents a nucleophilic group selected from amino, hydroxyl, sulfhydryl, active methylene and an organo-metallic moiety; provided that, when R₆ represents Q-Nu, Nu represents other than hydroxyl; and

X represents an anion.

2. An acridinium ester as claimed in claim 1 wherein R₁ represents alkyl, alkenyl, alkynyl or aryl, which contain up to 24 carbon atoms and which may contain up to 10 heteroatoms selected from nitrogen, oxygen, phosphorus and sulfur;

R₂, R₃, R₅ and R₇ independently represent hydrogen, amino, -COOH, -CN, hydroxyl, C₁-C₄ alkoxy, nitro,

halide, $-\text{SO}_3\text{H}$ or $-\text{SCN}$;

R_4 and R_8 independently represent alkyl, alkenyl, alkynyl or alkoxy, which contain up to 8 carbon atoms;

X represents halide, CH_3SO_4^- , FSO_3^- , CF_3SO_3^- , $\text{C}_4\text{F}_9\text{SO}_3^-$, or $p\text{-OSO}_2\text{-C}_6\text{H}_4\text{-CH}_3$;

R contains up to 24 carbon atoms and may contain up to 10 heteroatoms selected from nitrogen, oxygen, phosphorus and sulfur; and

Nu represents amino, hydroxyl, sulfhydryl, active methylene or an organo-metallic moiety, e.g. a Grignard moiety; provided that, when R_6 represents Q-Nu, Nu represents other than hydroxyl."

- VI. The Appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of Claims 1 to 15, submitted during oral proceedings.

At the end of the oral proceedings the chairman announced the Board's decision.

Reasons for the Decision

1. The appeal is admissible.
2. In the decision under appeal, the rejection of the application in suit was based on the noncompliance of the then pending Claim 1 (see above no. II) with the requirements of Article 123(2) EPC. The Examining

Division found that neither the deletion of the meaning hydrogen from the list of meanings defining both the residues R₄ and R₈ nor the disclaimer introduced into the definition of R₆ had a proper basis in the application documents as originally filed. In relation to the subject-matter which resulted from the above-mentioned deletion of hydrogen as a possible meaning R₄ and R₈, the Examining Division argued in particular that this led to a "novel selection".

3. Claim 1 as submitted by the Appellant in the course of the oral proceedings still contains, apart from some additional amendments mainly for the sake of clarity (Article 84 EPC) and for avoiding other objections under Article 123(2) EPC (see below points 7 and 8), in essence these two amendments objected to by the Examining Division. Therefore, the Board deems it appropriate first to deal with these restrictions causing the rejection of the application in suit.

4.1 Article 123(2) EPC requires that a European patent application (or a European patent) may not be amended in such a way that it contains subject-matter extending beyond the content of the application as filed. The idea underlying this provision is that an applicant should not be allowed to improve his position by **adding** subject-matter not disclosed in the application as filed giving him an unwarranted advantage and possibly being detrimental to the legal security of third parties relying on the contents of the application as filed (see G 0001/93, OJ 1994, 541, no. 9 of the reasons for the decision).

4.2 The same principle governs also a situation where the

amendment results in a **limitation** of the scope of the claims be it by the addition of a technical feature, be it - as in the present case - by the deletion of originally disclosed meanings from the definitions of symbols of a generic chemical formula standing for a class of chemical compounds.

- 4.3 There are certainly cases in which a limitation of the scope of a claim **may generate** novel subject-matter ("a novel selection" in the words of the Examining Division) not disclosed in or not derivable from the original application; but a limitation of a claim **will not necessarily result in** novel subject-matter, i.e. different from that as originally disclosed. A limitation may indeed merely exclude protection for a part of the subject-matter disclosed and claimed in the application as filed without giving any unwarranted advantage to the applicant and without any adverse impact on legal security (see G 0001/93, OJ 1994, 541, no. 16 of the reasons for the decision).
- 4.4 With this in mind, the question to be answered is whether or not the decision under appeal was correct in assuming that the subject-matter of the amended claims was not disclosed in or not derivable from the application as filed.
5. In respect to the restrictions of the definition of R_4 and R_8 it is to be noted that the meaning "hydrogen" was clearly disclosed in the application as filed as one out of a number of alternatives listed in defining both these residues; as far as the amendment of the definition of R_6 is concerned, the "disclaimer" now introduced into the definition amounts to nothing more

than the deletion of a particular alternative from the number of general definitions, which was also originally disclosed implicitly (page 3, line 1 in combination with lines 12 and 13 from the bottom of the application as filed), representing therefore the most clear and concise way for expressing the remaining subject-matter under the present circumstances. Thus, the amendments to Claim 1, objected to by the Examining Division, relate in fact to deletions of distinct, originally disclosed meanings from three lists of meanings (i.e. for R_4 , R_8 , and R_6 ; the two lists for R_4 and R_8 being identical).

6. Thus, in the present case, one originally disclosed meaning was deleted from each of three independent lists of sizeable length specifying possible alternative meanings of three residues (i.e. of the symbols R_4 , R_6 , and R_8) of a generic chemical formula defining in its turn a claimed class of chemical compounds. Whereas any limitation necessarily implies that what remains is less than what was available before the limitation, the present deletions did not result in singling out a particular combination of specific meanings, i.e. any hitherto not specifically mentioned individual compound or group of compounds, but maintained the remaining subject-matter as a generic group of compounds differing from the original group only by its smaller size, the number of encompassed compounds having been indeed reduced as a consequence of the said deletions. In the present situation, this shrinking of the generic group of chemical compounds is not objectionable under

Article 123(2) EPC, since these deletions did not lead to a particular combination of specific meanings of the respective residues which was not disclosed originally or, in other words, did not generate another invention.

The Board further notes that the amended Claim 1 is supported by the examples since all the originally filed examples relating to a compound of the invention are still within the scope of the amended Claim 1.

7. Amended Claim 1 as submitted during oral proceedings further differs from Claim 1 as originally filed essentially by

- the incorporation of upper limits for the number of carbon atoms and of hetero atoms of various groups specified in the claim;
- the specification of the hetero atoms; and
- the specification of the nucleophilic group Nu.

All these amendments find their proper basis in the first complete paragraph on page 3 of the application as filed.

8. The remaining differences between Claim 1 of the application as filed and Claim 1 as submitted during oral proceedings result from editorial amendments for the sake of clarity or for amending obvious errors under Rule 88 EPC and are not to be objected to under Article 123(2) EPC.

9. The Board concludes from the above that a skilled

person cannot obtain any information from the amended Claim 1 which would extend beyond that already comprised in the application as filed and that the amendments amounted essentially to a limitation of the possibilities already disclosed in the application as filed, i.e. to a limitation of the scope of the Claim 1 of the application as filed.

10. The amendments to Claim 2 are editorial amendments for the sake of clarity and are not to be objected to under Article 123(2) EPC either. Claims 3 to 15 are identical with Claims 3 to 15 of the application as filed. Therefore, the Board concludes that all the claims as submitted during oral proceedings comply with the requirements of Article 123(2) EPC.

11. The Board is also satisfied that the claims at stake are clear and concise. In particular, the Board has no objection against the wording used for restricting R_6 (see point 5, above). It follows, that Claims 1 to 15 comply with the requirements of Article 84 EPC and Rule 29(1) EPC.

- 12.1 The decision to refuse the application in suit was solely based on Article 123(2) EPC. As the Examining Division did not decide on the other requirements for granting a European patent, the case has to be remitted to the Examining Division for further prosecution on the basis of the claims submitted during oral proceedings. This will not preclude the Appellant to further amend these claims as may become appropriate.

- 12.2 In the course of examining inventive step, the Examining Division will in particular have to specify

the document disclosing the most relevant state of the art and will have to define the technical problem to be solved in respect to this starting point, bearing in mind that a redefinition of the technical problem presented in the specification of the application in suit would be appropriate only in case said technical problem was not solved or was based on a wrong assessment of the prior art (see, e.g. T 0495/91 of 20 July 1991 and T 1000/92 of 11 May 1994; both decisions not published in the OJ EPO). It will be possible only in the context of such an investigation of inventive step, to decide whether some rather broad definitions used in Claim 1 (see, e.g. the terms amido, acyl, organo-metallic moiety, etc.) can be considered to be acceptable or whether reasoned objections have to be raised in this connection.

13. In an **annex to the decision** (see above no. II), the Examining Division considered that an interlocutory revision according to Article 109 EPC would only be possible on condition that several objections were overcome.

These objections were unrelated to the grounds of refusal and had clearly no link at all to the decision under appeal. The Board emphasises that such an approach **has no legal basis** and would be contrary to the established case law of the Boards of Appeal according to which the Examining Division must rectify the contested decision as soon as the appeal includes amendments which clearly meet the objections on which the refusal of the application had been based (see Case Law of the Boards of Appeal of the European Patent Office, page 345, München 1996, and the decisions cited

there). As in the present case the refusal was solely based on non-compliance with the requirements of Article 123(2) EPC, this objection would have been the only one to be overcome for achieving a rectification of the decision.

14. On this occasion, the Board finds the following comments appropriate: **annexes** to appealable decisions listing objections **having no relation to the reasons for the decision** concerned and having no legal effect, **would seem to be of no help to anybody**, be it the Appellant, the public, the Examining Division, or the Board, in particular when only prior communications or page numbers of the EPO's examination file are referred to in support. Moreover, it does not seem to be advisable that an Examining Division indicates in a decision, which can and has to be delivered only on the facts and requests which are on file at the very point in time when the decision is taken, what steps it may take in response to possible future submissions of an applicant. The further evolution of a case can be hardly foreseen and the potential issues which may have a bearing on the outcome of the further examination proceedings cannot reliably be predicted. Furthermore, such indications, in spite of their legal insignificance, may cause unnecessary confusion by providing for example the wrong picture of a hopeless situation or, on the contrary, give rise to unjustified expectations on the part of the applicant.

For these reasons, an Examining Division's decision should not be supplemented normally by annexes dealing with issues having no relation to the issues dealt with in the reasons for this decision.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the Examining Division for further prosecution.

The Registrar:

The Chairman:

E. Görgmaier

A. Nuss