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Datasheet for the decision of 19 February 2010

Case Number: T 1893/07 - 3.4.02

Application Number: 02076325.6

Publication Number: 1236995

IPC: G01N 27/42

Language of the proceedings: EN

Title of invention:
Repetitive potential step method for amperometric detection

Applicant:
LifeScan, Inc.

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 76(1), 54(3)

Relevant legal provisions (EPC 1973):
-

Keyword:
-

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1893/07 - 3.4.02

D E C I S I O N
of the Technical Board of Appeal 3.4.02
of 19 February 2010

Appellant: LifeScan, Inc.
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Representative: Smaggasgale, Gillian Helen
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 13 June 2007 refusing European patent application No. 02076325.6 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: A. G. Klein
Members: F. Maaswinkel
C. Rennie-Smith

Summary of Facts and Submissions

I. This appeal, received on 14 August 2007, is against the decision of the examining division, dispatched on 13 June 2007, refusing the European patent application 02076325.6. The fee for the appeal was paid on 14 August 2007 and the statement setting out the grounds of appeal was received on 11 October 2007.

II. This patent application is a divisional application of the parent application 96937918.9, published as WO97/18465. Claim 1 of the parent application related to a method for determining the concentration of a reduced or (or oxidised) form of a redox species in an electrochemical cell having a working electrode and a counter electrode spaced from the working electrode by a predetermined distance. The method includes a number of steps, one of which reads

"(d) interrupting, or reversing the polarity, of the potential".

During the examining proceedings of the parent patent application, claim 1 was restricted to the alternative in this step (d) "reversing the polarity" which lead to a European patent (published under number EP-B-0 882 226). Subsequently, in the present divisional patent application in the claimed method a step (d) was included which now read "interrupting and reapplying the potential, wherein the potential is reapplied prior to achieving a steady state" (*emphasis added*).

III. In its decision the examining division had objected that the independent claim 1 and dependent claim 10 infringed Article 76(1) EPC since the underlined feature was not disclosed in the parent patent application. Furthermore it was objected that the subject-matter of claim 1 was anticipated by the disclosure in document

DE1: WO97/00441,

which was an international patent application comprised in the state of the art under Article 54(3) and 158(1) EPC 1973.

IV. With the statement setting out the grounds of appeal the appellant filed two sets of claims according to a main and an auxiliary request to be considered by the board. According to the appellant the new claims were not objectionable under Article 76(1) EPC and the claimed subject-matter was novel over the disclosure in document DE1. Also, since the decision under appeal had not addressed the question of inventive step it was requested to remit the case to the first instance for further prosecution if the board would accept the appellant's arguments relating to the objections under Article 76(1) and 54 EPC. Finally the appellant filed an auxiliary request for oral proceedings.

V. In a Communication annexed to the summons to oral proceedings the board observed that the objected expression "wherein the potential is reapplied prior to achieving steady state" was still included in claim 10 of the main request and in claims 1 and 10 of the auxiliary request and that, since the board concurred

with the examining division, the objection under Article 76(1) EPC was maintained. Also document DE1 remained relevant for the question of novelty under Article 54(3) EPC 2000. Furthermore, since in the decision under appeal the issue of inventive step had not been dealt with following a problem-solution approach, since the appellant in the notice of appeal had made reference to new prior art documents and, finally, since it appeared doubtful that the claimed priority date was valid, the board considered remitting the case to the first instance if the appellant should overcome the objections under Article 76(1) and 54 EPC.

VI. With a subsequent letter of 7 January 2010 the appellant filed sets of claims according to a main and first to third auxiliary requests to replace those previously filed.

VII. Oral proceedings took place on 19 February 2010. At the oral proceedings the appellant filed a new main request. The board gave its decision at the end of the oral proceedings.

VIII. Independent claim 1 of the main request filed at the oral proceedings reads as follows:

" A method for determining the concentration of a reduced (or oxidized) form of a redox species in an electrochemical cell of the kind comprising a working electrode and a counter electrode spaced from the working electrode by a predetermined distance, said method comprising the steps of:

(a) applying an electric potential between the electrodes, wherein the electrodes are spaced so that

reaction products from the counter electrode arrive at the working electrode by diffusion and wherein the potential of the working electrode is such that the rate of the electrooxidation of the reduced form (or electroreduction of the oxidised form) of the redox species is diffusion controlled,

(b) determining current as a function of time after application of the potential and prior to achievement of a steady state,

(c) estimating the magnitude of the steady state current,

(d) interrupting and reapplying the potential approximately 15 seconds after interrupting the potential,

(e) repeating step (b) and step (c)."

Claims 2 to 8 are dependent claims.

IX. The arguments of the appellant can be summarised as follows:

Claim 1 has been amended to delete the reference to the potential being applied prior to achieving a steady state thereby rendering moot the objection under Article 76 EPC. In addition, this claim has been amended to state that the reapplication of the potential occurs approximately 15 seconds after interrupting the potential. Support for this amendment can be found at page 12, lines 20 to 23 of the parent application. Document DE1 fails to teach or even suggest the time period between when a potential is interrupted and when it is reapplied. In this connection reference is made to page 17, lines 13 to 15 of this document. Accordingly, claim 1 of the main

request and the claims dependent therefrom are distinguished over the disclosure in DE1.

Reasons for the Decision

1. The appeal is admissible.

2. *Amendments*

2.1 With respect to the expression introduced in claim 1 the board is satisfied that it has a fair basis in the passage at page 12, lines 20 to 24 and the corresponding Figure 6 of the parent patent application. Therefore this amendment is not objectionable under Article 76(1) EPC. Also the further claims are supported by corresponding claims in the parent application.

2.2 Furthermore, the board does not have any objections under Article 123(2) EPC or Article 84 EPC. Therefore the set of claims is formally allowable.

3. *Patentability - Novelty*

3.1 In point 2.1 of the Reasons for the decision the examining division had set out that document DE1 represented prior art within the meaning of Article 54(3) EPC 2000. In its statement of grounds of appeal the appellant did not contest these findings and the board shares the view of the examining division.

3.2 With reference to claim 1 and the passage at page 17, lines 1 to 15, the examining division found that

document DE1 discloses a method for determining the concentration of a reduced (or oxidized) form of a redox species in an electrochemical cell of the kind comprising a working electrode and a counter electrode spaced from the working electrode by a predetermined distance, wherein the method comprises the steps of:

(a) applying an electric potential between the electrodes (*see DE1, claim 1, lines 1 to 6*), wherein the electrodes are spaced so that reaction products from the counter electrode arrive at the working electrode by diffusion (*lines 10 to 12*) and wherein the potential of the working electrode is such that the rate of the electrooxidation of the reduced form (or electroreduction of the oxidised form) of the redox species is diffusion controlled (*claim 1, lines 6 to 9*);

(b) determining current as a function of time after application of the potential and prior to achievement of a steady state (*claim 1, lines 13 and 14*);

(c) estimating the magnitude of the steady state current (*claim 1, feature (5)*);

(d) interrupting and reapplying the potential (*page 17, lines 13 to 15*); and

(e) repeating step (b) and step (c) (*see page 17, lines 13 to 15*).

3.3 Present claim 1 differs from the method in DE1 in that feature (d) requires: "interrupting and reapplying the potential approximately 15 seconds after interrupting the potential", wherein the underlined feature is not known from DE1. Therefore the subject-matter of this claim is novel over the disclosure of this document.

4. *Further prosecution*

4.1 Since the grounds for the refusal (*Article 76(1) EPC and lack of novelty over the disclosure in DE1, citable under Article 54(3) EPC 2000*) have been overcome in the claims of the main request, the decision under appeal must be set aside.

4.2 However, as set out in point V *supra*, neither the relevance of the further documents cited by the examining division and/or referred to by the applicant/appellant, nor the priority of the patent application has been assessed yet. In any case, present claim 1 has been amended with respect to the claims addressed in the decision.

4.3 Therefore in the present case the board considers it appropriate to remit the case for further prosecution to the department of first instance.

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 the main request filed during the oral proceedings.

The Registrar: The Chairman:

M. Kiehl A. G. Klein