Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 9 March 2018

Case Number: T 1985/14 - 3.4.02

Application Number: 05790860.0

Publication Number: 1802966

IPC: G01N31/22

Language of the proceedings: EN

Title of invention:
GAS DETECTION SYSTEM

Applicant:
Honeywell Analytics AG

Relevant legal provisions:
EPC 1973 Art. 84
EPC Art. 123(2)

Keyword:
Cancellation of oral proceedings and continuation in writing (no)
Clarity (no) - Main and auxiliary requests
Added subject-matter (yes) - Main and auxiliary requests

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1985/14 - 3.4.02

D E C I S I O N
of Technical Board of Appeal 3.4.02
of 9 March 2018

Appellant: (Applicant)	Honeywell Analytics AG Willstrasse 11 8610 Uster (CH)
Representative:	Copsey, Timothy Graham Kilburn & Strode LLP Lacon London 84 Theobalds Road London WC1X 8NL (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 17 February 2014 refusing European patent application No. 05790860.0 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	R. Bekkering
Members:	F. J. Narganes-Quijano
	T. Karamanli

Summary of Facts and Submissions

I. The appellant (applicant) lodged an appeal against the decision of the examining division refusing European patent application No. 05790860.0.

In its decision the examining division held that claim 1 of the main request and the first and second auxiliary requests then on file was not allowable. In particular, the examining division found that

- the subject-matter of claim 1 of the main request did not involve an inventive step in view of the prior art on file (Article 56 EPC), and
- claim 1 of both the first and the second auxiliary requests did not satisfy the requirements of Article 123(2) EPC and was not clear (Article 84 EPC).

II. With the statement setting out the grounds of appeal the appellant filed two sets of claims as a main and an auxiliary request and requested that the decision under appeal be set aside and a patent be granted on the basis of the set of claims of the main or the auxiliary request.

III. In a communication annexed to the summons to oral proceedings the board gave a preliminary assessment of the case. In particular, the board raised a series of objections under Article 84 EPC 1973 and Article 123(2) EPC with respect to the claims of the main and the auxiliary requests, and expressed doubts as to novelty and/or inventive step of the claimed subject-matter (Article 52(1) EPC).

IV. In reply to the summons, the appellant filed with its letter dated 9 February 2018 two sets of claims

replacing the respective sets of claims of the main and the auxiliary requests, and amended pages of the description. The appellant requested that the proceedings be continued in writing.

V. In a communication dated 23 February 2018 the board noted that

- it had doubts whether, exercising its discretion under Article 13 RPBA, it should admit the amended requests into the appeal proceedings because the amended claims raised new objections under Article 84 EPC 1973 and Article 123(2) EPC, and

- if, however, these new requests would be admitted into the proceedings, then it appeared that they contravened in several respects the requirements of Article 84 EPC 1973, Article 123(2) EPC and also Article 56 EPC 1973.

The board informed the appellant that the oral proceedings would take place at the scheduled date in order to decide on the admissibility and the allowability of the new requests.

VI. By letter dated 8 March 2018 the appellant informed the board that it would not be attending the oral proceedings and requested a decision based on its submissions made in writing.

The appellant's request was therefore that the decision under appeal be set aside and that a patent be granted on the basis of the set of claims of the main and the auxiliary requests, both filed with the letter dated 9 February 2018.

VII. Oral proceedings were held on 9 March 2018 in the absence of the appellant.

At the end of the oral proceedings the chairman announced the decision of the board.

VIII. Claim 1 of the main request reads as follows:

"A colorimetric gas detector comprising:

a substrate (10), the substrate bearing a colour-change material that can react with a target gas in an atmosphere being monitored, wherein the reaction with the target gas causes the colour-change material to change radiation properties at which the colour-change material absorbs or radiates radiation, wherein the colour-change material is located in a row of a plurality of dots (12, 14), wherein the row of the plurality of dots is transverse to a longitudinal axis of the substrate, wherein each of the plurality of dots include a respective concentration of the colour-change material and is disposed in a respective discrete area of the substrate, and wherein the respective concentration of the colour-change material in the respective discrete area of a first one of the plurality [*sic*] is different from the respective concentration of the colour-change material in the respective discrete area of dots [*sic*] of a second one of the plurality of dots;

a means for bringing a sample from the atmosphere into contact with the row of the plurality of dots;

an optical radiation source for applying a source of the radiation;

a detector for simultaneously measuring transmittance and/or reflection of the radiation from the optical radiation source from the respective discrete area of each of the plurality of dots; and

a means for comparing the transmittance and/or the reflection of the radiation with references, to

identify a pattern of the transmittance and/or the reflection from the respective discrete area of each of the plurality of dots and deriving therefrom a measure of a concentration of the target gas."

Claim 1 of the auxiliary request reads as follows:

"A colorimetric gas detector comprising:

a substrate (10), the substrate bearing a colour-change material that can react with a target gas in an atmosphere being monitored, wherein a reaction with the target gas causes the colour-change material to change radiation properties at which the colour-change material absorbs or radiates radiation, wherein the colour-change material is located in a row of a plurality of dots (12, 14), wherein the row of the plurality of dots is transverse to a longitudinal axis of the substrate, wherein each of the plurality of dots include a respective concentration of the colour-change material and is disposed in a respective discrete area of the substrate, and wherein the respective concentration of the colour-change material in the respective discrete area of a first one of the plurality of dots is different from the respective concentration of the colour-change material in the respective discrete area of a second one of the plurality of dots;

a means for bringing a sample from the atmosphere into contact with the row of the plurality of dots;

an optical radiation source for applying a source of the radiation;

a detector for simultaneously measuring transmittance and/or reflection of the radiation from the optical radiation source from the respective discrete area of each of the plurality of dots; and

a still or video camera to form an image of a monitored area for discovering a concentration of the target gas by identifying a pattern of the transmittance and/or the reflection from the respective discrete area of each of the plurality of dots."

Reasons for the Decision

1. The appeal is admissible.

2. *Request for continuation of the proceedings in writing*

With the communication annexed to the summons to oral proceedings the board raised a series of objections under Article 84 EPC 1973 and Article 123(2) EPC with respect to the claims of the main and the auxiliary requests filed with the statement setting out the grounds of appeal, and it also expressed doubts as to the patentability under Article 52(1) EPC of the claimed subject-matter. In reply to the summons, the appellant replaced the claims of the main and the auxiliary request by amended claims, and requested that the proceedings be continued in writing.

When compared with the claims of the previous main and auxiliary requests, the claims of the present main and auxiliary requests contain several amendments directed to overcome the objections previously raised by the board under Article 84 EPC 1973, Article 123(2) EPC, and Article 52(1) EPC. However, as noted by the board in the subsequent communication dated 23 February 2018, the new amendments gave rise to further objections

under Article 84 EPC 1973 and Article 123(2) EPC and, in addition, the board still had doubts as to whether the claimed subject-matter was patentable under Article 52(1) EPC together with Article 56 EPC 1973. Under these circumstances, the continuation in writing and the possibility that further oral proceedings would have to be scheduled at a later stage would have unduly lengthened the appeal procedure and would have significantly postponed the final decision of the board. Furthermore, the appellant did not identify any special circumstances and did not submit any specific reason that would have justified in the present case the cancellation of the oral proceedings and the continuation of the proceedings in writing.

In view of the above, and as notified to the appellant with the communication dated 23 February 2018, the board decided to maintain the oral proceedings in order to address all outstanding issues and to take a decision at the end of the oral proceedings. The appellant's request for continuation of the proceedings in writing was therefore refused.

3. *Absence of the appellant at the oral proceedings*

The appellant had duly been summoned to oral proceedings and, as previously announced in its letter dated 8 March 2018, the appellant did not attend the oral proceedings. The oral proceedings were then held in the absence of the appellant in accordance with Rule 115(2) EPC.

According to Article 15(3) RPBA, the board "shall not be obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned who

may then be treated as relying only on its written case". In the present case, the board already informed the appellant with the communication dated 23 February 2018 that the amended claims of the main and the auxiliary requests gave rise to objections, in particular under Article 84 EPC 1973 and Article 123(2) EPC, and that these objections would be discussed during the oral proceedings in order to decide on the admissibility and the allowability of the requests. The purpose of the oral proceedings was therefore to give the appellant the opportunity to present its case and to be heard (Article 113(1) EPC 1973) on these issues. By not attending the oral proceedings, however, the appellant chose not to avail itself of that opportunity. In these circumstances, the appellant had to expect that the mentioned objections would be discussed in its absence and that a decision based on these objections would be reached during the oral proceedings.

During the oral proceedings claim 1 of each of the main and first auxiliary requests was found to contravene the requirements of Article 84 EPC 1973 and Article 123(2) EPC as detailed below. Since the appellant did not appear in order to discuss these objections and, in its letter dated 8 March 2018, the appellant requested a decision based on the submissions made in writing, the board only relied on the appellant's written submissions. The case was therefore ready for decision (Articles 15(5) and (6) RPBA), and since the voluntary absence of the appellant was not a reason for delaying the decision, the board was in a position to decide at the conclusion of the oral proceedings.

4. *Main and auxiliary requests - Admissibility*

As already noted in point 2 above, the claims of the main and the auxiliary requests were amended in several respects in order to overcome the objections raised by the board under Article 84 EPC 1973, Article 123(2) EPC, and Article 52(1) EPC in the communication annexed to the summons to oral proceedings. The claims of the present main and auxiliary requests were therefore filed in advance of the oral proceedings and constituted an attempt to overcome the objections previously raised by the board. In addition, as held in point 3 above, the board was in a position to deal with the requests in substance without adjourning the oral proceedings. For these reasons, the board, exercising its discretionary power under Article 13(1) RPBA, decided during the oral proceedings to admit these two requests into the proceedings.

5. *Main request - Article 84 EPC 1973 and Article 123(2) EPC*

5.1 Claim 1 of the main request is directed to a colorimetric gas detector comprising a substrate having a row of a plurality of dots, each of the plurality of dots including a respective concentration of a colour-change material and being disposed in a respective discrete area of the substrate. In addition, the colour-change material can react with a target gas so as to change the properties at which the material absorbs or radiates radiation, and the colorimetric gas detector comprises a detector for simultaneously measuring the transmittance and/or the reflection of the radiation from an optical radiation source from the respective discrete area of each of the plurality of dots.

5.2 According to the last paragraph of claim 1, the claimed gas detector further comprises means for comparing the transmittance and/or the reflection of the radiation with references "to identify a pattern of the transmittance and/or the reflection from the respective discrete area of each of the plurality of dots". It is, however, not clear in the context of claim 1 whether the "pattern of the transmittance and/or the reflection" defined by this feature refers to the pattern formed by the radiation transmitted and/or reflected by all the discrete areas taken together as a pattern, or to the radiation pattern of the radiation transmitted and/or reflected individually by each one of the discrete areas (Article 84 EPC 1973).

Therefore, claim 1 of the main request is not clear within the meaning of Article 84 EPC 1973.

5.3 The application as originally filed discloses the identification of a pattern formed by the radiation transmitted and/or reflected by all the discrete areas taken together as a pattern (see description of the application as published (WO2006/038028), page 11, lines 4 to 6: "[...] by providing a suitable pattern of individual areas [...] the concentration and nature of the gas can be discovered by pattern recognition" [*emphasis added*]). There is, however, no disclosure in the application as originally filed that this identification is carried out by "comparing the transmittance and/or the reflection of the radiation with references" as required by the features of the last paragraph of claim 1.

In its letter dated 9 February 2018, the appellant submitted that claim 1 was based on Fig. 4 and the corresponding disclosure on page 10, line 28, to page

11, line 6, of the application as originally filed. However, this passage of the application as originally filed is silent as to the comparison with a reference. In addition, the paragraph bridging pages 8 and 9 of the description of the application as originally filed refers to measuring "the change in colour according to a pre-programmed look-up table", and claim 10 of the application as originally filed defines a comparison with a reference ("[...] measuring the radiation transmittance and/or radiation reflection from the at least one area and optionally also comparing the transmitted and/or reflected radiation with a reference" [*emphasis added*]), but the comparison disclosed in these two passages of the original application involves the radiation transmittance and/or reflection from individual ones of the areas, and not the radiation from the areas taken together as a pattern. It is also noted that the introductory phrase of the passage of the application as originally filed referred to above and relating to the pattern recognition (description of the application as published, page 11, lines 4 to 6: "Instead of measuring the precise colour-change, it is possible, by providing a suitable pattern of individual areas [...]") emphasizes that the identification of a radiation pattern associated with the pattern of areas is disclosed as an alternative to - and not as a possible additional feature of - the analysis of the radiation from individual ones of the areas.

It follows from the above considerations that there is no basis in the application as originally filed for the feature of the last paragraph of claim 1 of the main request requiring "means for comparing the transmittance and/or the reflection of the radiation with references, to identify a pattern of the

transmittance and/or the reflection from the respective discrete area of each of the plurality of dots" (Article 123(2) EPC).

6. *Auxiliary request - Article 84 EPC 1973 and Article 123(2) EPC*

6.1 Claim 1 of the auxiliary request is also directed to a colorimetric gas detector comprising the features mentioned in point 5.1 above.

6.2 As it is the case with claim 1 of the main request (see point 5.2 above), claim 1 of the first auxiliary request also requires in the last paragraph of the claim "identifying a pattern of the transmittance and/or the reflection from the respective discrete area of each of the plurality of dots". This feature is not clear for the same reasons given in point 5.2 above in respect of the corresponding feature of claim 1 of the main request.

Therefore, claim 1 of the auxiliary request is not clear within the meaning of Article 84 EPC 1973.

6.3 Claim 1 of the auxiliary request requires "a detector for simultaneously measuring transmittance and/or reflection of the radiation [...] from the respective discrete area of each of the plurality of dots" and also "a still or video camera to form an image of a monitored area", the detector and the still or video camera being defined in the claim as two distinct constituents of the claimed gas detector. As submitted by the appellant, the provision of a still or video camera is supported by the passage on page 11, lines 11 to 14 of the description of the application as originally filed. However, while the application as

originally filed discloses the provision in the colorimetric gas detector of a still or video camera for forming an image of the areas of colour change material (see description of the application as published, page 11, lines 11 to 14) or of other detectors, in particular in the form of a photosensitive cell (page 11, lines 8 to 11) or of light-sensitive sensors (page 10, lines 8 to 13), for detecting the radiation transmitted and/or reflected from the discrete areas or dots, there is no basis in the application as originally filed in support of the simultaneous provision of a detector as claimed together with a still or video camera as required by the claimed subject-matter. More particularly, the use of a still or video camera is disclosed in the application as originally filed as a particular case of detector (cf. application as published, page 11, lines 8 to 14: "The radiation transmitted by the individual areas may be detected by a photosensitive cell [...]. This can be achieved through the use of a still or video camera [...]" [*emphasis added*]), and not as an additional detection means to be used together with a detector as claimed.

It follows from the above considerations that there is no basis in the application as originally filed for the simultaneous provision of a detector as claimed and of a still or video camera as required by claim 1 of the auxiliary request (Article 123(2) EPC).

7. In view of the above considerations, none of the requests of the appellant is allowable and, consequently, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. Kiehl R. Bekkering

Decision electronically authenticated