Internal distribution code:

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

Datasheet for the decision of 21 November 2019

Case Number: T 2199/14 - 3.4.03

Application Number: 03724539.6

Publication Number: 1508157

IPC: H01L21/00, H01L25/16, H01L27/15, H01L33/00, H01L25/075

Language of the proceedings: EN

Title of invention:
HIGH EFFICIENCY SOLID-STATE LIGHT SOURCE AND METHODS OF USE AND MANUFACTURE

Patent Proprietor:
Phoseon Technology, Inc.

Opponent:
Heraeus Noblelight GmbH

Headword:

Relevant legal provisions:
EPC 1973 Art. 87(1), 56
RPBA Art. 13(1)

Keyword:
Priority - identity of invention (no)
Inventive step - (no)
Late-filed auxiliary requests - request clearly allowable (no)

Decisions cited:

Catchword:

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 2199/14 - 3.4.03

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 21 November 2019

Appellant: (Patent Proprietor)	Phoseon Technology, Inc. 7425 NW Evergreen Parkway Hillsboro, OR 97124 (US)
Representative:	Laufhütte, Dieter Lorenz Seidler Gossel Rechtsanwälte Patentanwälte Partnerschaft mbB Widenmayerstraße 23 80538 München (DE)
Appellant: (Opponent)	Heraeus Noblelight GmbH Heraeusstr. 12-14 D-63450 Hanau (DE)
Representative:	Herzog IP Patentanwalts GmbH Immermannstraße 40 40210 Düsseldorf (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 6 November 2014 concerning maintenance of the European Patent No. 1508157 in amended form.**

Composition of the Board:

Chairman	G. Eliasson
Members:	M. Stenger
	T. Bokor

Summary of Facts and Submissions

I. The appeals of the proprietor and of the opponent concern the interlocutory decision of the Opposition Division to maintain European patent no. EP1508157 in amended form (corresponding to current auxiliary request 4b).
The corresponding patent application was filed as international application no. PCT/US2003/14625 and published as WO 2003/096387 A2, claiming priority from US patent application no. US 60/379019.

II. During the proceedings before the Opposition Division, the validity of the priority claimed and objections with respect to Article 100 a) EPC in combination with Articles 54 and 56 EPC as well as relating to Articles 100 b), 100 c), 123(2), 123(3) and 84 EPC were discussed.

III. It is referred to the following documents:

E1: US2001/0046652 A1
E13: US2003/0081096 A1

IV. At the end of the oral proceedings before the Board, the proprietor requested that the contested decision be set aside and that the patent be maintained according to

- a main request M* filed with the grounds of appeal, or according to

- auxiliary requests 1*, 2*, 4* and 4b*, all filed with the grounds of appeal, or according to

- auxiliary requests 4b, 5 and 6*, all filed with letter dated 7 July 2015, or according to

- auxiliary requests 7 to 12, all filed with letter dated 23 September 2019,

in the order listed above.

V. At the end of the oral proceedings, the opponent requested that the contested decision be set aside and that the patent be revoked in its entirety.

VI. The wording of claim 1 of the main request M* is as follows (labelling a), b), ... added by the Board).

a) *Use of a light bar for industrial in-line material transformation applications,*

b) *wherein the light bar includes one or more solid-state light modules mounted thereon,*

c) *wherein the modules comprise a substrate thermally coupled to a heat sink and having drive circuitry to provide power to an array of LEDs surface disposed on the substrate,*

d) *wherein the modules produce a light output power density of at least 50 mW/cm^2 during use,*

e) *wherein the modules output light in a wavelength less than 425 nm during use, and*

f) *wherein the modules further comprise at least one optical element which includes a reflective, refractive, or diffractive micro lens array that collimates the light output.*

VII. The wording of claim 1 of auxiliary request 1* differs from the wording of claim 1 of the main request M* in that the minimum power density defined in feature d) is

500 mW/cm^2

VIII. The wording of claim 1 of auxiliary request 2* differs from the wording of claim 1 of the main request M* in that the minimum power density defined in feature d) is

1234 mW/cm^2

IX. The wording of claim 1 of auxiliary request 4* differs from the wording of claim 1 of the main request M* in that feature b) is replaced by b') as follows:

b') *wherein the light bar includes one or more solid-state light modules mounted in a light bar housing in a manner so that light output produced by the LED chips is directed toward a work object through a window,*

X. The wording of claim 1 of auxiliary request 4b* differs from the wording of claim 1 of the main request M* in that feature b) is replaced by feature b'') as follows:

b'') *wherein the light bar includes one or more solid-state light modules mounted in a light bar housing, including upper and lower metal plates between which a fluid circulation channel is positioned so that heat is transferred from the light bar housing to the fluid which is then carried out of the light bar housing, in a manner so that light output produced by the LED chips is directed toward a work object through a window,*

XI. The wording of auxiliary request 4b differs from the wording of auxiliary request 4b* in that it comprises, between features b'') and c), feature b''') as follows

b''') *wherein the light bar is mounted on a support for moving it over a work object,*

XII. The wording of claim 1 of auxiliary request 5 differs from the wording of the main request M* in that feature a) is replaced by feature a') as follows

a') *Use of a light bar for the curing of inks in an industrial in-line photopolymerization process,*

XIII. The wording of claim 1 of auxiliary request 6* differs from the wording of auxiliary request 4b* in that

it comprises feature a') instead of feature a), and in that the minimum power density defined in feature d) is

1234 mW/cm^2.

XIV. The wording of claim 1 of auxiliary request 7 differs from the wording of the main request M* in that in feature f), the term *reflective* is deleted.

XV. The wording of claim 1 of auxiliary request 8 differs from the wording of auxiliary request 4b* in that in feature f), the term *reflective* is deleted.

XVI. The wording of claim 1 of auxiliary request 9 differs from the wording of auxiliary request 6* in that in feature f), the term *reflective* is deleted.

XVII. The wording of claim 1 of auxiliary request 10 differs from the wording of the main request M* in that in feature f), the term *reflective* is deleted and in that feature a) is replaced by feature a'') as follows:

a'') *Use of a light bar for material transformation applications in production,*

XVIII. The wording of claim 1 of auxiliary request 11 differs from the wording of auxiliary request 4b* in that in feature f), the term *reflective* is deleted and in that feature a) is replaced by feature a'') as follows:

a'') *Use of a light bar for material transformation applications in production,*

XIX. The wording of claim 1 of auxiliary request 12 differs from the wording of auxiliary request 6* in that in

feature f), the term *reflective* is deleted and in that feature a) is replaced by feature a'') as follows:

a'') *Use of a light bar for material transformation applications in production,*

XX. The relevant arguments of the appellant proprietor may be summarised as follows

(a) Main request M*, auxiliary requests 1*, 2* and 4*

Concerning the main request M* as well as auxiliary requests 1*, 2* and 4*, the proprietor essentially referred to his written submissions.
The only written submission relating to E13 can be found under point VII.2. of his letter dated 7 July 2015. According to this submission, E13 and E1 concern remote fields, whereby the skilled person would not combine these documents.
However, during the discussion of claim 1 of auxiliary request 4b* during oral proceedings, the proprietor also presented arguments under the presumption that the skilled person, starting from E13, would consider E1 and would modify the system of E13 taking into account the teaching of E1.

Further, the proprietor pointed out during oral proceedings that E13 did not disclose any structural elements of the UV LED array. The objective technical problem should thus be formulated as how to design a light source that is suitable for being used in a system as the one disclosed in E13.

(b) Auxiliary request 4b*

At the filing date of the application, no UV LED arrays were actually used in industrial environments. Consequently, E13 mentioned only the abstract idea of using UV LED arrays for the curing of ink and did not disclose any practical implementation of that idea.

For such a practical implementation, many problems had to be solved. Overheating, the presence of dust and the necessity of cleaning were for instance issues that had to be considered.

The proprietor acknowledged that the four differentiating features identified in point 12.4 of the communication by the Board preparing the oral proceedings were correct for the main request. Further, the output light power densities required for the purposes of various applications were known from the use of other lamps, like halogen lamps.

However, claim 1 of auxiliary request 4b* further defined a specific structural design of a housing that facilitated cleaning and heat removal. The problems arising from dust being always present in an industrial environment were also overcome by this specific structural design.

This specific structural design involved 3 particular features:

- the light modules were arranged *in a housing*
- the light output was directed *through a window*
- the light modules *further comprised a micro lens array*.

That is, the *window* was not identical to the *microlens array*.

The skilled person, starting from E13 and trying to design a light source suitable for use in the system of E13, would not consider documents like E1 which related to the different technical field of dental curing devices.

Even if, arguendo, the skilled person would have consulted E1, he would not have arrived at the invention as claimed.
E1 disclosed three different types of such devices in figures 2700, 2800 and 2900. None of these devices was, however, provided with a housing / window / micro lens array configuration as the one defined in claim 1 of auxiliary request 4b* involving the three particular features defined above.

Consequently, the skilled person, starting from E13, would be led by the embodiments given in figures 2700, 2800 and 2900 of E1 to an implementation of the UV LED array in E13 that would differ from the invention as defined in claim 1 of auxiliary request 4b*.

(c) Auxiliary requests 4b, 5, 6* and 7 to 12

The proprietor did not provide any comments as to the allowability of the independent claims of auxiliary requests 4b, 5, 6* or as to the admission of auxiliary requests 7 to 12.

XXI. The relevant arguments of the opponent may be summarised as follows

(a) Main request M*, 1*, 2* and 4*

Given that the priority was not valid, E13 represented the closest state of the art. Claim 1 of the main request differed from E13 by the four features a) to d) as defined in the Board's communication preparing the oral proceedings. Starting from E13, the problem to be solved was generally to overcome the problems in the prior art, as defined in the application in [6]. In view of [33] of E13, the skilled person would try to find a portable light source with small form factor and lower power consumption.

When doing so, he would turn to document E1, which concerned the curing of material just like E13 and, in view of [71], was not exclusively related to dentistry but was also proposed for other applications. The teaching of E1 would incite the skilled person to integrate features a) to d) into the system of E13 without the exercise of an inventive step.

With the reply to the grounds of appeal (page 44) and with letter dated 16 September 2015 (pages 16 and 17), the opponent had further argued that it would be obvious for the skilled person to simply increase the output density and/or to change the wavelength for applications requiring higher density and/or a different wavelength. In addition, he had indicated that dental applications were known to use output densities of up to 2000 mW/cm^2.

(b) Auxiliary request 4b*

The opponent argued that claim 1 of auxiliary request 4b* was not inventive for a plurality of reasons.

During oral proceedings, the opponent submitted that the example shown in figure 2900 corresponded, with

slight adaptations, to the structural arrangement defined in claim 1 of auxiliary request 4b*. In particular, the rectangular part apparently attached to the right side of the lens, between the lens and the trapezoid element, could be seen as corresponding to the window defined in the claim.

On a more general level, the opponent had already submitted with the grounds of appeal (point 77.) the argument that it was generally known to put elements, in particular chips, into a housing.
During oral proceedings, the opponent further submitted that it was generally known to protect whatever device from dust by encapsulating the device. Moreover, this concept was, on an even more general level, actually known to everybody: to protect something, one could put it in a bag.

In the grounds of appeal (point 70.), the opponent had further argued that E1 disclosed a window through which the light was directed at a work object, relying on [62] as well as figures 1750 and 1800 of E1.

Moreover, the opponent had argued in the grounds of appeal (points 27. and 28.) that E1 disclosed upper and lower metal plates between which a fluid circulation channel is positioned, referring to figure 1800 and claims 14 to 16 of E1.

(c) Auxiliary requests 4b, 5, 6* and 7 to 12

In his letter dated 17 October 2019, the opponent had submitted that requests 4b, 5 and 6* would not change the claimed subject-matter in substance and would be *prima facie* not allowable (point 52.).

Further, in the same letter (point 53.), the opponent had argued that auxiliary requests 7 to 12 should not be admitted to the proceedings. They did not change the claimed subject-matter in substance when compared to the main request M* and auxiliary requests 4b* and 6*, respectively, and were *prima facie* not allowable.

Reasons for the Decision

1. The appeals are admissible.

2. Priority

Figures 4 to 6 of the opposed patent are the only ones which concern in-line material transformation applications / a photopolymerization process in a production application, to which all requests relate to. However, these figures are not comprised in the priority document. Further, the priority document does not disclose all the elements of the light bar claimed in the independent claims of the requests, either.

Consequently, the independent claims of all requests do not relate to the *same invention* as the priority document. The requirements of Article 87(1) EPC 1973 are thus not fulfilled. Therefore, the priority date of 8 May 2002 is not validly claimed and the relevant filing date of the patent is 8 May 2003.

The proprietor did not dispute the invalidity of the priority claim.

3. State of the art

3.1 E13

E13 was published on 1 May 2003. Since the priority of the patent is not validly claimed as argued above, E13 represents state of the art according to Article 54(2) EPC.

E13 relates to printing with UV photosensitive resin-containing substances. In a first step, the substances are deposited on a substrate. In a second step, the deposited substances are irradiated with UV light to cross-link the resins. Thereby, the substances or inks are cured. E13 aims at improving the curing step (see [11] and [12]). The document discloses replacing the previously used UV lamps by UV light-emitting devices, for example UV LED arrays (see [32]). Thereby, a small form factor, lower power consumption and enhanced portability can be obtained (see [13] and [33]).

3.2 E1

E1 relates to LED light sources with a power output that makes them suitable to be used for dental curing (abstract, [4]). For that purpose, LED arrays in different configurations are disclosed. Further, some specific examples of handheld devices incorporating such LED arrays are given.

4. Main request M* (see points XX.(a) and XXI.(a) above)

4.1 E13

In the wording of claim 1 of the main request M*, E13 discloses

a) Use of a light bar ([45]: *ultraviolet light emitting device subsystem* 140) for industrial in-line material transformation applications (*curing*, see abstract; see also figures 1 and 3),

b) wherein the light bar includes one or more solid-state light modules mounted thereon ([45]: *at least one array of light emitting devices*),

c) (part) wherein the modules comprise a substrate having drive circuitry to provide power to an array of LEDs disposed on the substrate ([45]); an LED array must be mounted on some kind of support and this support must, in one way or another, be provided with means for providing power to the individual LEDs),

e) wherein the modules output light in a wavelength less than 425 nm during use (the wavelengths of ultraviolet light range approximately from 10 to 400 nm).

4.2 Difference

The subject-matter of claim 1 of the main request thus differs from E13 in that:

i) the substrate is thermally coupled to a heat sink

ii) the LED array is *surface* disposed on the substrate

iii) the modules produce a light output power density of at least 50 mW/cm^2 during use,

iv) the modules further comprise at least one optical element which includes a reflective,

refractive, or diffractive micro lens array that collimates the light output.

Features i) to iv) correspond to features a) to d) as defined in point 12.4 of the communication of the Board preparing the oral proceedings. That these features form the differentiating features was common ground during the oral proceedings.

4.3 Technical effect / objective technical problem

The technical effect of the differentiating features is that a relatively high light output power density can be produced by the LED array of the light bar. The Board notes that E13 already specifies that a (sufficiently) high amount of output UV light for curing must be provided (see [28], [39], [40], [47], [52] and [57]).

The Board agrees with the proprietor that E13 is silent concerning the structural design of the LED.
Similar to what was suggested by the proprietor, the objective technical problem to be solved can then be formulated as how to design a light source which produces a sufficiently high amount of light such that it is suitable for being used in a curing system as disclosed in E13.

As submitted by the proprietor in the written phase, E1 mainly concerns dental curing and thus a different application of curing than E13, which relates to the curing of ink in a printing system.
This difference concerns mainly the spatial constraints imposed on the light bar during use (form factor / housing). Starting from E13, however, the skilled person would be primarily interested in the properties

of the light output of the LED array disclosed in the prior art. These properties would need to be such that curing is enabled.

E1 concerns the issue of providing an LED array with a power output that is sufficiently high to initiate a curing process (see [2] and [4]). The skilled person would thus consider E1 when trying to solve the objective technical problem as defined above.

The Board thus finds, contrary to the submissions of the proprietor, that the skilled person would look for teaching in E1.

4.4 Teaching of E1

The skilled person would learn from E1 that light output of sufficiently high power can be achieved by

- thermally coupling the substrate to a heat sink (see figure 1800 and [65]: *heat dissipation environment chamber*) according to feature i)

- surface disposing the LED array on the substrate (see [59]: *places the LED or LED array on one side of a flat substrate*) according to feature ii)

and by

- providing at least one optical element including a refractive or diffractive micro lens array (see [61]: *provide an array of lenses or holographic films*) that collimates the light output (see [126] and [195]) according to feature iv).

4.5 Inventiveness

It follows from the above that the skilled person would directly be led by the teaching of E1 to employ features i), ii) and iv) when designing a UV LED array light source with sufficient light output power density such that it would be suitable for the system of E13. Thereby, an inventive step cannot be acknowledged on the basis of these distinguishing features.

Further, the skilled person would design any light source such that the amount of light / the output power density is sufficient for the application in question. The exact value of light output power density of such a light source has thus to be considered as being the result of a choice the skilled person would make according to the circumstances, in particular according to the application in question, without the exercise of an inventive step.
The Board notes that LED arrays with output power densities of up to 2000 mW/cm^2 were already known at the filing date of the application, as argued by the opponent (letter dated 16 July 2015, page 44). This was not disputed by the proprietor. The Board does not doubt that such an output power density can be readily obtained following the principles outlined in E1. Consequently, an inventive step cannot be acknowledged on the basis of feature iii), either.

It follows from the above that the subject-matter of claim 1 of the main request M* does not involve an inventive step within the meaning of Article 56 EPC 1973 in view of document E13 combined with the teaching of document E1 and the common general knowledge of the skilled person.

5. Auxiliary requests 1* and 2*

Features d) of the independent claims of auxiliary requests 1* and 2* differ from corresponding feature d) of the main request M* only by the values of the light output power density. The patent is silent about any specific application for which these (higher) output power densities would be particularly useful.

Consequently, the output power densities defined in auxiliary requests 1* and 2* have also to be considered as the result of a choice the skilled person would make according to the circumstances, i.e. in view of the application he has in mind, without the exercise of inventive activity.

Consequently, the subject-matter of claim 1 of auxiliary requests 1* and 2* lacks an inventive step within the meaning of Article 56 EPC 1973 as well.

6. Auxiliary request 4b* (see points XX.(b) and XXI.(b) above)

6.1 Inventive step

Providing housings or encapsulations to protect electronic or other devices is considered by the Board to be part of the common general knowledge of the skilled person, as submitted by the opponent.

In particular, in an industrial in-line environment as the one E13 relates to, the skilled person would as a matter of course consider mounting all the elements of a device in a *housing* in order to protect them from

environmental influences such as dust, radiation and temperature variations.
One of these elements to be protected would then be the ultraviolet light emitting device subsystem 140 of E13 including an LED array designed according to the teaching of E1 as argued above with respect to the main request M*. The housing of this subsystem has to be considered as a *light bar housing*. This was not disputed by the proprietor.

Further, in view of the arrangement of the *heat dissipation environment chamber 1801* of the LED array of E1 (see figure 1800 and [65]), it is difficult to imagine that this chamber would be left outside that housing. Further, chamber 1801 as shown in figure 1800 comprises *upper and lower metal plates between which a fluid circulation channel is positioned such that heat is transferred from the light bar housing*, as submitted by the opponent (see also claims 14 to 16 of E1). In other words, E1 teaches liquid cooling of the LED heat sink.

The skilled person would thus place the LED array designed according to the teaching of E1 inside a light bar housing for protection purposes.
In such an arrangement, the light output would need to be directed at the work object. Thereby, an opening in the housing would be indispensable.

It would then be straightforward for the skilled person to seal this opening by means of a *window* to maintain the protective effect of the housing.

In addition to these general considerations, E1 explicitly suggests to seal the LEDs by providing a glass window (*anti-refective coated optical glass*, see

the bottom of [61] on page 3) whether a micro lens array is used or not (*Whether or not lenses or holographic films or arrays of lenses and/or holographic film(s) are used*, see the bottom of [61] on page 3).

The skilled person would thus be led by his common general knowledge as well as by the teaching of E1 to mount the LED array to be used as a light source in the system of E13 with its substrate and heat sink in a light bar housing such that light output produced by the LED chips is directed toward a work object through a window according to feature b'').

It follows from the above that the subject-matter of claim 1 of auxiliary request 4b* is not inventive in the sense of Article 56 EPC 1973 in view of E13 combined with the teaching of E1 and the common general knowledge of the skilled person.

6.2 Arguments of the parties

The Board has difficulties to interpret the rectangular part attached to the right side of the lens in figure 2900 of E1 as being a window in the sense of a plate of glass, contrary to the argument of the opponent.
The Board therefore accepts the argument of the proprietor that using any one of the specific housing / heat sink / window configurations given as examples in figures 2700, 2800 and 2900 to protect the ultraviolet light emitting device subsystem 140 of E13 would indeed lead to a different light bar housing configuration from that defined in claim 1 of auxiliary request 4b*.

However, as noted above, starting from E13, the skilled person would primarily be interested in the LED array

configuration disclosed in E1 because it provided a sufficiently high output power density.
The specific housing examples pertaining to particular embodiments shown in figures 2700, 2800 and 2900 of E1, on the other hand, are clearly not directed at industrial in-line curing and would therefore not be considered by the skilled person when starting from E13.

Hence, the skilled person seeking to improve the overall industrial in-line ink curing system of E13 would not include any housing configuration elements according to figures 2700, 2800 and 2900, bearing in mind that the apparatus of E13 is subject to environmental influences different from those faced in dental applications.

7. Auxiliary request 4*

Claim 1 of auxiliary request 4* comprises a subset of the features forming claim 1 of auxiliary request 4b*. The considerations concerning the latter auxiliary request thus equally apply to auxiliary request 4*.

Therefore, the subject-matter of claim 1 of this request lacks an inventive step within the meaning of Article 56 EPC 1973.

8. Auxiliary request 4b

Auxiliary request 4b was filed with the reply to the grounds of appeal in accordance with Article 12(2) RPBA. This request was maintained by the Opposition

Division. The Board does not see any reason why this request should not be admitted into the proceedings.

In particular, the procedural rights of the proprietor under Article 12(2) RPBA as respondent to the opponent's appeal are not affected by his procedural position as appellant, so that he had no obligation to present these requests earlier.

E13 discloses to mount the ultraviolet light emitting device subsystem 140 on a moving carriage (last sentence of [49]) and thereby additional feature b'''). The reasoning given above for claim 1 of auxiliary request 4b* thus also applies to claim 1 of auxiliary request 4b the subject-matter of which is therefore not inventive within the meaning of Article 56 EPC 1973.

9. Auxiliary requests 5 and 6*

Auxiliary requests 5 and 6* were filed with the reply to the grounds of appeal in accordance with Article 12(2) RPBA. The Board does not see any reason why these requests should not be admitted into the proceedings, as explained above.

The system of E13 concerns the curing of inks which is a specific type of photopolymerization. Thus, E13 discloses feature a') as well.

Thus, the reasoning above concerning claim 1 of the main request M* equally applies to claim 1 of auxiliary request 5, the subject-matter of which is not inventive within the meaning of Article 56 EPC 1973.

In a similar manner, the reasoning above concerning claim 1 of auxiliary request 4b* applies to claim 1 of auxiliary request 6* as well. In addition, the skilled person would always select the light output power density according to the circumstances without involving an inventive step, as noted above with respect to auxiliary requests 1* and 2*. Consequently, the subject-matter of claim 1 of auxiliary request 6* is not inventive within the meaning of Article 56 EPC 1973.

10. Auxiliary requests 7 to 12 (see points XX.(c) and XXI.(c) above)

The independent claims of auxiliary requests 7 to 9 differ from the independent claims of the main request M*, auxiliary request 4b* and auxiliary request 6*, respectively, in that the alternative that the micro lens array is *reflective* is deleted.

The independent claims of auxiliary requests 10 to 12 differ further from the independent claims of the main request M*, auxiliary request 4b* and auxiliary request 6*, respectively, in that the light bar is used for *material transformation applications in production*. The curing of inks disclosed in E13, however, has to be considered as such a material transformation application in production.

It follows from the above that the reasoning concerning inventive step as brought forward above with respect to the main request M* applies *prima facie* to the independent claims of auxiliary requests 7 and 10 as well.

In a similar manner, the reasoning concerning inventive step as brought forward above with respect to auxiliary request 4b* equally applies *prima facie* to the independent claims of auxiliary requests 8 and 11.

Finally, the reasoning concerning inventive step as brought forward above with respect to auxiliary request 6* applies *prima facie* to the independent claims of auxiliary requests 9 and 12 as well.

Consequently, auxiliary requests 7 to 12 are *prima facie* not allowable, as submitted by the opponent. Therefore, the Board exercises its discretion pursuant to Article 13(1) RPBA to not admit them.

11. None of the requests of the proprietor complies with the requirements of the EPC. Thus, the patent has to be revoked.

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:

S. Sánchez Chiquero G. Eliasson

Decision electronically authenticated