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**Datasheet for the decision
of 16 July 2014**

Case Number: T 0950/11 - 3.2.02

Application Number: 02750606.2

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C02F1/32, A61L2/08, A61M1/36

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Title of invention:
MONOCHROMATIC FLUID TREATMENT SYSTEMS

Applicant:
Triton Thalassic Technologies, Inc.

Headword:

Relevant legal provisions:
EPC Art. 123(2)
RPBA Art. 15(3)
EPC R. 115(2)

Keyword:
Amendments - added subject-matter (yes)

Decisions cited:

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 0950/11 - 3.2.02

D E C I S I O N
of Technical Board of Appeal 3.2.02
of 16 July 2014

Appellant: Triton Thalassic Technologies, Inc.
(Applicant) 241 Ethan Allen Highway
Ridgefield, CT 06877 (US)

Representative: Potter Clarkson LLP
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 2 December 2010
refusing European patent application No.
02750606.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman E. Dufrasne
Members: C. Körber
M. Stern

Summary of Facts and Submissions

- I. On 2 December 2010 the Examining Division posted its decision to refuse European patent application No. 02750606.2 under Article 123(2) EPC.
- II. An appeal was lodged against this decision by the applicant by notice received on 3 February 2011, with the appeal fee being paid on the same day. The statement setting out the grounds of appeal was received on 7 April 2011.
- III. By communication of 5 May 2014, the Board summoned the appellant to oral proceedings scheduled for 16 July 2014, and forwarded its provisional opinion.
- IV. In the late afternoon of 15 July 2014, the appellant informed the Office over the phone that it would not be attending the oral proceedings.
- V. Oral proceedings were held on 16 July 2014 in the absence of the appellant, in accordance with Rule 115(2) EPC and Article 15(3) RPBA.
- VI. The appellant had requested that the decision under appeal be set aside and that a patent be granted on the basis of the set of claims filed as main request with its letter dated 18 October 2010, or on the basis of one of the first to fifth auxiliary requests filed with the statement setting out the grounds of appeal.

Claim 1 of the **main request** reads:

"A system for treatment of a sensitive fluid with monochromatic light without overheating the fluid, the system comprising:

a) a non-laser light source (200, 350, 702a, 702b, 802) including an annular bounded volume (206, 360, 702a/702b, 802) of photon-producing excimer gas for generating monochromatic light and having a light emitting surface (202, 365, 704, 804); and

b) a barrier structure (103, 390, 722, 810) including a treatment surface (108, 390, 722, 810), said barrier structure positioned and coupled relative to said light emitting surface (202, 365, 704, 804) such that at least a portion of said monochromatic light generated by said bounded volume of photon-producing excimer gas is transmitted through the treatment surface for treatment purposes of a sensitive fluid (250, 380, 720, 808) positioned proximate to said treatment surface (108, 390, 722, 810), said treatment surface conforming or corresponding to the geometry of the sensitive fluid or a sensitive fluid-containing container positioned proximate thereto, wherein said barrier structure and said light emitting surface cooperate to define a fluid tight region (105, 330, 724, 806) adapted for housing a cooling fluid between said light emitting surface and said treatment surface."

Claims 2 to 15 are dependent claims.

Claim 1 of the **first auxiliary request** reads:

"A system for treatment of a blood product, the system comprising:

a) a non-laser light source (200, 350, 702a, 702b, 802) including an annular bounded volume (206, 360, 702a/702b, 802) of photon-producing excimer gas for generating monochromatic light and having a light emitting surface (202, 365, 704, 804); and

b) a barrier structure (103, 390, 722, 810) including a treatment surface (108, 390, 722, 810), said barrier structure positioned and coupled relative to said light emitting surface (202, 365, 704, 804) such that at least a portion of said monochromatic light generated by said bounded volume of photon-producing excimer gas is transmitted through the treatment surface for treatment purposes of a sensitive fluid (250, 380, 720, 808) positioned proximate to said treatment surface (108, 390, 722, 810), said treatment surface conforming or corresponding to the geometry of the sensitive fluid or a sensitive fluid-containing container positioned proximate thereto, wherein said barrier structure and said light emitting surface cooperate to define a fluid tight region (105, 330, 724, 806) adapted for housing a cooling fluid between said light emitting surface and said treatment surface."

Claims 2 to 15 are dependent claims.

Claim 1 of the **second auxiliary request** reads:

"A system for treatment of a sensitive fluid with monochromatic light without overheating the fluid, the system comprising:

- a) a non-laser light source (200) including an outer wall (202) and an inner wall (204) that cooperate to define an annulus (206), a photon-producing excimer gas source contained within a bounded volume of the annulus (206) for generating and delivering monochromatic light from a light emitting surface of the annulus (206); and
- b) a barrier structure (103) including a treatment surface (108), said barrier structure positioned and coupled relative to said light emitting surface (202) such that at least a portion of said monochromatic

light generated by said bounded volume of photon-producing excimer gas is transmitted through the treatment surface for treatment purposes of a sensitive fluid (250) positioned proximate to said treatment surface (108), said treatment surface conforming or corresponding to the geometry of the sensitive fluid or a sensitive fluid-containing container positioned proximate thereto, wherein said barrier structure and said light emitting surface cooperate to define a fluid tight region (105) adapted for housing a cooling fluid between said light emitting surface and said treatment surface."

Claims 2 to 15 are dependent claims.

Claim 1 of the **third auxiliary request** reads:

"A system for treatment of a sensitive fluid with monochromatic light without overheating the fluid, the system comprising:

- a) a non-laser light source (200) including an annular bounded volume (206) of photon-producing excimer gas for generating monochromatic light and having a light emitting surface (202); and
- b) a housing (102) including a treatment surface (108), said housing (102) positioned and coupled relative to said light emitting surface (202) such that at least a portion of said monochromatic light generated by said bounded volume of photon-producing excimer gas is transmitted through the treatment surface for treatment purposes of a sensitive fluid (250) positioned proximate to said treatment surface (108), said treatment surface conforming or corresponding to the geometry of the sensitive fluid or a sensitive fluid-containing container positioned proximate thereto, wherein

said housing (102) and said light emitting surface cooperate to define a fluid tight region (105) adapted for housing a cooling fluid between said light emitting surface and said treatment surface."

Claims 2 to 12 are dependent claims.

Claim 1 of the **fourth auxiliary request** reads:

"A system for treatment of a blood product, the system comprising:

a) a non-laser light source (200) including an outer wall (202) and an inner wall (204) that cooperate to define an annulus (206) a photon-producing excimer gas source contained within a bounded volume of the annulus (206) for generating and delivering monochromatic light from a light emitting surface (202) of the annulus; and
b) a housing (102) including a treatment surface (108), said housing (102) positioned and coupled relative to said light emitting surface (202) such that at least a portion of said monochromatic light generated by said bounded volume of photon-producing excimer gas is transmitted through the treatment surface (108) for treatment purposes of a sensitive fluid (250) positioned proximate to said treatment surface (108), said treatment surface (108) conforming or corresponding to the geometry of the sensitive fluid or a sensitive fluid-containing container positioned proximate thereto, wherein said housing (102) and said light emitting surface cooperate to define a fluid tight region (105) adapted for housing a cooling fluid between said light emitting surface and said treatment surface (108)."

Claims 2 to 12 are dependent claims, with claims 9, 11 and 12 reading as follows:

"9. A system according to claim 1 wherein the non-laser light source (200) is positioned within the housing, the housing (102) having one or more outer walls (103) wherein the one or more outer walls include the treatment surface.

[10. ...]

11. A system according to claim 9, wherein the treatment surface (108) comprises a quartz plate (108) mounted to said housing (102), said quartz plate (108) having inwardly and outwardly directed faces, wherein said quartz plate (108) is adapted for treatment purposes of a sensitive fluid positioned proximate to said outwardly directed face of said quartz plate (108).

12. A system according to claim 9, wherein a sensitive fluid is positioned outside said housing (102) and adjacent said treatment surface (108) for irradiation by said monochromatic light."

Claim 1 of the **fifth auxiliary request** reads:

"A system for treatment of a blood product, the system comprising:

- a) a non-laser light source (200) including an outer wall (202) and an inner wall (204) that cooperate to define an annulus (206) a photon-producing excimer gas source contained within a bounded volume of the annulus (206) for generating and delivering monochromatic light from a light emitting surface on the outer wall (202) of the annulus (206); and
- b) a housing (102) including a treatment surface (108), said housing (102) containing said non-laser light source (200) and positioned and coupled relative to

said light emitting surface such that at least a portion of said monochromatic light generated by said bounded volume of photon-producing excimer gas is transmitted through the treatment surface (108) for treatment purposes of a sensitive fluid (250) positioned proximate to said treatment surface (108), said treatment surface (108) conforming or corresponding to the geometry of the sensitive fluid or a sensitive fluid-containing container positioned proximate thereto, wherein said housing (102) and said light emitting surface cooperate to define a fluid tight region (105) adapted for housing a cooling fluid between said light emitting surface and said treatment surface (108)."

Claims 2 to 10 are dependent claims, with claims 9 and 10 reading as follows:

"9. A system according to claim 1, wherein the treatment surface (108) comprises a quartz plate (108) mounted to said housing (102), said quartz plate (108) having inwardly and outwardly directed faces, wherein said quartz plate (108) is adapted for treatment purposes of a sensitive fluid positioned proximate to said outwardly directed face of said quartz plate (108).

10. A system according to claim 1, wherein a sensitive fluid is positioned outside said housing (102) and adjacent said treatment surface (108) for irradiation by said monochromatic light."

VII. The appellant's arguments are summarised as follows:

In each of the embodiments of Figures 3 to 6 and 8, a barrier structure was positioned and coupled relative to a light emitting surface of the non-laser light

source, such that light generated by the excimer gas within the light source was transmitted for treating a sensitive fluid positioned proximate thereto. In Figures 3 and 4, the light emitting surface could be considered to be the outer wall 202, and the housing 102 comprising the wall 103 and flange 112 together formed a barrier structure comprising treatment surfaces in the form of panels 108a, 108b, 108c (Figure 1). In Figures 5 and 6, the light emitting surface could be considered to be the inner wall 365 of the light source 350, while the central tubular region 390 formed a barrier structure having a treatment surface within which a treatment fluid 380 was provided. Although the literal term "barrier structure" was not present in the text of the application as filed, this term accurately represented features that were common to each of the illustrated embodiments outlined above.

Original claim 1 recited "A system for treating a complex fluid". The description stated that a complex fluid was defined as comprising "fluid components that are sensitive to and/or activated by light and/or heat energy" (page 13, lines 19 to 21). The application as filed therefore unambiguously disclosed a system for treatment of a light sensitive fluid.

Reasons for the Decision

1. The appeal is admissible.

2. Amendments - main request

Claim 1 includes the expressions "barrier structure" and "sensitive fluid".

2.1 As conceded by the appellant, the term "barrier structure" is not literally disclosed in the text of the application as originally filed. This term is broader than the term "housing" used throughout the original disclosure (page 24, line 3 and onwards; claims 9, 10, 16, 19 and 20). The Board does not accept the appellant's argument that "the housing 102 comprising the wall 103 and flange 112 together form a barrier structure". A barrier is merely something that prevents or blocks passage from one place to another. This definition is much less specific than what is depicted in Figures 1 to 4 and disclosed in the description relating to this embodiment. Also, the tubular region 390 shown in Figures 5 and 6 cannot be generalised as a "barrier structure". In lines 10 et seq. of page 35 it is stated that the tubular region 390 may be an integral component of apparatus 300, or may be defined by tubing. The terms "tubular" or "tubing" imply geometrical restrictions which are entirely absent from the term "barrier structure". Lastly, the Board does not accept that this term "accurately represents features that are common to each of the illustrated embodiments", as argued by the appellant.

2.2 The term "sensitive fluid" is likewise not literally disclosed in the application as originally filed. In the original claims and description, reference is made to a "complex fluid". As indicated by the appellant, this term is further defined in lines 19 et seq. of page 13 as "a fluid that includes a plurality of fluid

components that are sensitive to and/or activated by **light** and/or **heat** energy" [emphasis added]. As correctly indicated in the statement of grounds of appeal (page 2, second paragraph), this passage provides a basis for the term "light sensitive fluid". The claimed term "sensitive fluid", however, is more general in that it fails to specify to what (i.e. light and/or heat) the fluid is sensitive. Accordingly, it covers kinds of fluids which were not originally disclosed.

- 2.3 It follows that both terms "barrier structure" and "sensitive fluid" in claim 1 of the main request represent generalisations which extend beyond the content of the original disclosure in violation of Article 123(2) EPC.

3. Amendments - auxiliary requests

In claim 1 of the first auxiliary request, the term "sensitive fluid" has been replaced by "blood product" in the first line of the claim (thus partially overcoming the objection in point 2.2 above), but the term "a sensitive fluid" is still present in the remainder of the claim and some of the dependent claims. Moreover, claim 1 still includes the term "barrier structure" which is objected to for the reasons given in point 2.1 above.

Claim 1 of the second auxiliary request includes both the terms "barrier structure" and "sensitive fluid", without any further restrictions relating thereto.

In claim 1 of the third auxiliary request, the term "barrier structure" has been replaced by "housing", thus overcoming the objection in point 2.1 above, but

the term "sensitive fluid" is still present without further specification of the kind of fluid and is thus subject to the objection set out in point 2.2 above.

In the first line of claim 1 and at the beginning of feature b) of claim 1 of the fourth auxiliary request, the terms "sensitive fluid" and "barrier structure" have been replaced by "blood product" and "housing", respectively, but further on in the wording of the claim, the term "a sensitive fluid" is still present. This term is also used in dependent claims 11 and 12 without any further specification of the kind of fluid.

Likewise, in the first line of claim 1 and at the beginning of feature b) of claim 1 of the fifth auxiliary request, the terms "sensitive fluid" and "barrier structure" have been replaced by "blood product" and "housing" respectively, but later on the claim still uses the term "a sensitive fluid". This term is also used in dependent claims 9 and 10 without any further specification of the kind of fluid.

Accordingly, the objection set out in point 2.2 above also applies to the fourth and fifth auxiliary requests.

Consequently, the claims of the first to fifth auxiliary requests are subject to at least one of the objections set out in points 2.1 and 2.2 above. Their subject-matter is therefore also not allowable under Article 123(2) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



D. Hampe

E. Dufrasne

Decision electronically authenticated