

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

| | | |
|---|---|--|
| Applicant's or agent's file reference PC-11582 | | FOR FURTHER ACTION See paragraph 2 below |
| International application No. PCT/JP2008/072176 | International filing date (day/month/year) 05.12.2008 | Priority date (day/month/year) |
| International Patent Classification (IPC) or both national classification and IPC | | |
| Applicant OLYMPUS CORPORATION | | |

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

| | | |
|--|------------------------------------|--------------------|
| Name and mailing address of the ISA/JP | Date of completion of this opinion | Authorized officer |
| Facsimile No. | | Telephone No. |

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2008/072176

| Box No. I | Basis of this opinion |
|-----------|---|
| 1. | <p>With regard to the language, this opinion has been established on the basis of:</p> <p><input checked="" type="checkbox"/> the international application in the language in which it was filed</p> <p><input type="checkbox"/> a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).</p> |
| 2. | <p><input type="checkbox"/> This opinion has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))</p> |
| 3. | <p>With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:</p> <p>a. type of material</p> <p><input type="checkbox"/> a sequence listing</p> <p><input type="checkbox"/> table(s) related to the sequence listing</p> <p>b. format of material</p> <p><input type="checkbox"/> on paper</p> <p><input type="checkbox"/> in electronic form</p> <p>c. time of filing/furnishing</p> <p><input type="checkbox"/> contained in the international application as filed</p> <p><input type="checkbox"/> filed together with the international application in electronic form</p> <p><input type="checkbox"/> furnished subsequently to this Authority for the purposes of search</p> |
| 4. | <p><input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.</p> |
| 5. | <p>Additional comments:</p> |

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

| |
|--|
| International application No. PCT/JP2008/072176 |
|--|

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|-------------|-------------|--------|----------------------|----------------------|----|---------------------|---|--------|-----|-----|--------|---------|----|-------------------------------|---|--------|------|-----|--------|--|----|
| Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Statement | | | | | | | | | | | | | | | | | | | | | | | | |
| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; padding: 5px;">Novelty (N)</td> <td style="padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">2-9, 11, 15</td> <td style="width: 10%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">1, 10, 12-14, 16, 17</td> <td style="padding: 5px;">NO</td> </tr> </table> </td> </tr> <tr> <td style="padding: 5px;">Inventive step (IS)</td> <td style="padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">2-7</td> <td style="width: 10%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">1, 8-17</td> <td style="padding: 5px;">NO</td> </tr> </table> </td> </tr> <tr> <td style="padding: 5px;">Industrial applicability (IA)</td> <td style="padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">1-17</td> <td style="width: 10%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;"></td> <td style="padding: 5px;">NO</td> </tr> </table> </td> </tr> </table> | Novelty (N) | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">2-9, 11, 15</td> <td style="width: 10%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">1, 10, 12-14, 16, 17</td> <td style="padding: 5px;">NO</td> </tr> </table> | Claims | 2-9, 11, 15 | YES | Claims | 1, 10, 12-14, 16, 17 | NO | Inventive step (IS) | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">2-7</td> <td style="width: 10%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">1, 8-17</td> <td style="padding: 5px;">NO</td> </tr> </table> | Claims | 2-7 | YES | Claims | 1, 8-17 | NO | Industrial applicability (IA) | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">1-17</td> <td style="width: 10%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;"></td> <td style="padding: 5px;">NO</td> </tr> </table> | Claims | 1-17 | YES | Claims | | NO |
| Novelty (N) | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">2-9, 11, 15</td> <td style="width: 10%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">1, 10, 12-14, 16, 17</td> <td style="padding: 5px;">NO</td> </tr> </table> | Claims | 2-9, 11, 15 | YES | Claims | 1, 10, 12-14, 16, 17 | NO | | | | | | | | | | | | | | | | | |
| Claims | 2-9, 11, 15 | YES | | | | | | | | | | | | | | | | | | | | | | |
| Claims | 1, 10, 12-14, 16, 17 | NO | | | | | | | | | | | | | | | | | | | | | | |
| Inventive step (IS) | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">2-7</td> <td style="width: 10%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">1, 8-17</td> <td style="padding: 5px;">NO</td> </tr> </table> | Claims | 2-7 | YES | Claims | 1, 8-17 | NO | | | | | | | | | | | | | | | | | |
| Claims | 2-7 | YES | | | | | | | | | | | | | | | | | | | | | | |
| Claims | 1, 8-17 | NO | | | | | | | | | | | | | | | | | | | | | | |
| Industrial applicability (IA) | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;">1-17</td> <td style="width: 10%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 5px;"></td> <td style="padding: 5px;">NO</td> </tr> </table> | Claims | 1-17 | YES | Claims | | NO | | | | | | | | | | | | | | | | | |
| Claims | 1-17 | YES | | | | | | | | | | | | | | | | | | | | | | |
| Claims | | NO | | | | | | | | | | | | | | | | | | | | | | |
| 2. Citations and explanations: | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Document 1: JP 2008-284030 A</p> <p>Document 2: WO 2006/038502 A1 & US 2008/0089089 A1</p> <p>Document 3: WO 2007/105647 A1 & US 2009/0003400 A1</p> <p>Document 4: JP 2008-289712 A</p> <p style="text-align: center;">Claims 1 and 17</p> <p>See paragraphs [0035], [0036], and [0067]-[0074], fig. 1, 7, and 8 of document 1. The fiber (4a) and the columnar transparent member for emitting illuminating light (11) of document 1 each have a function of transmitting illuminating light and thus correspond to the first light transmitting section and the second light transmitting section, respectively, of the present application.</p> <p>Therefore, the invention as set forth in claims 1 and 17 is disclosed in document 1 and thus is not novel.</p> <p style="text-align: center;">Claims 2-7</p> <p>The invention as in claims 2-7 is not disclosed in any of the documents cited in the ISR and would not be obvious to a person skilled in the art.</p> | | | | | | | | | | | | | | | | | | | | | | | | |

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2008/072176

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

(None of the documents discloses an example wherein a fluorescent member is provided in a flexible tube.)

Claim 8

Document 2 (paragraphs [0074] and [0138]) discloses providing a wavelength conversion member (30) in a light output section (12) of an excitation light (1). Paragraph [0021] discloses disposing a lens (13) between a light emitting element (11) and the light output section (12), and fig. 1 shows the situation thereof.

In the condition of the abovementioned paragraphs [0074] and [0138], the lens (13) (see paragraph [0021]) and a light guide (20) correspond to the first light transmitting section and the second light transmitting section, respectively, of the present application.

Document 2 (paragraph [0103]) discloses using the light emitting device disclosed in document 2 in an endoscope apparatus, and therefore, as a consequence of using the endoscope apparatus shown in fig. 8 of document 1, the fluorescent member is disposed inside the apparatus main body.

Conceiving thereof would be self-evident to a person skilled in the art.

Claim 9

Document 1 (paragraph [0049]) discloses diffusing an illuminating light. Using a diffuser plate for this diffusing is a well-known technique.

Claim 10

The light guide (20), the wavelength conversion member (30), and a lens (75b) disclosed in document 2

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2008/072176

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

(paragraphs [0074] and [0091], fig. 5(m)) correspond to the first light transmitting section, the fluorescent member, and the second light transmitting section, respectively, of the invention of the present application.

Further, applying the light emitting device in various uses such as an endoscope apparatus is disclosed in paragraph [0103] and thereafter. Referring to paragraph [0122] and fig. 9 therein, it would be clear to a person skilled in the art that a plurality of unit light emitting device units can be used in order to increase brightness.

Therefore, the invention as set forth in claim 10 is disclosed in document 2 and thus is not novel.

Claim 11

In an illuminating apparatus converting the wavelength of an excitation light by means of a fluorescent member, providing the fluorescent member with a heat dissipation means is a well-known technique, as disclosed, for example, in document 3 (paragraph [0013]).

Claim 12

See paragraphs [0019]-[0021] and fig. 2 of document 4.

The light guide for lighting (13) and an optical system for lighting (15) of document 4 correspond to the first light transmitting section and the second light transmitting section, respectively, of the invention of the present application.

Therefore, the invention as set forth in claim 12 is disclosed in document 4 and thus is not novel.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2008/072176

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Claim 13

Document 4 (paragraph [0021]) discloses providing an input side light detecting part (20a) inside an apparatus main body.

Claim 13 specifies that the input side light detecting part is disposed in the proximity of the fluorescent member; however, the degree of the proximity thereof is unclear, and therefore, no clear difference with respect to document 4 can be found.

Claim 14

See paragraphs [0036]-[0048] and fig. 1 of document 1.

Claim 15

Referring to paragraph [0009] and fig. 15 of document 1, it is disclosed that detection signals for output side light are generally generated inside an inserting section.

Providing an amplifier inside the inserting section when transmitting signals via the inserting section in this way is a well-known technique in the field of endoscopes.

Therefore, in document 1, generating detection signals for output side light inside an inserting section and providing an amplifier for the signals inside the inserting section would be obvious to a person skilled in the art.

Claim 16

Reference symbols (4a) and (11) of document 1 are

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2008/072176

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

both items that guide light, and thus, are light guides.
Furthermore, a detecting illuminating light guide means
(5a) disclosed in document 1 (paragraph [0035]; fig. 1)
also corresponds to the second light transmitting section
of the invention of the present application. This
reference symbol (5a) is clearly a light guide.