PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	31.05.2016
Applicant's or agent's file reference GH2805-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/JP2016/056661	03.03.2016	05.03.2015

International Patent Classification (IPC) or both national classification and IPC

A61B5/0408(2006.01)i, A61B5/0478(2006.01)i, A61B5/0492(2006.01)i

Applicant

NIPRO 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 43*bis*.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 66.1*bis*(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.

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/JP2016/056661

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

☒ the international application in the language in which it was filed

☐ 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)).

2. ☐ 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 43*bis*.1(a))

3. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:

a. ☐ forming part of the international application as filed:

☐ in the form of an Annex C/ST.25 text file.

☐ on paper or in the form of an image file.

b. ☐ furnished together with the international application under PCT Rule 13*ter*.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.

c. ☐ furnished subsequent to the international filing date for the purposes of international search only:

☐ in the form of an Annex C/ST.25 text file (Rule 13*ter*.1(a)).

☐ on paper or in the form of an image file (Rule 13*ter*.1(b) and Administrative Instructions, Section 713).

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2016/056661

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

Novelty (N)	Claims		YES
	Claims	1-6	NO
Inventive step (IS)	Claims		YES
	Claims	1-6	NO
Industrial applicability (IA)	Claims	1-6	YES
	Claims		NO

2. Citations and explanations:

Document 1: JP 2013-111361 A (JAPAN HEALTH SCIENCES FOUNDATION) 10 June 2013, paragraphs [0030], [0040]-[0043], [0050], fig. 16, 17 & WO 2013/080992 A1

Document 2: JP 2006-34429 A (OLYMPUS CORP.) 09 February 2006, paragraphs [0026]-[0028], fig. 7, 8 & US 2008/0027345 A1, paragraphs [0141]-[0146], fig. 21, 22 & WO 2006/001276 A1 & EP 1767147 A1

Document 3: JP 2006-094979 A (KIMURA, Akio) 13 April 2006, claims 1-2, paragraphs [0001]-[0024], fig. 1-9 (Family: none)

Document 4: EP 2172152 A1 (NEDERLANDSE ORGANISATIE VOOR TOEGEPAST-NATUURWETENSCHAPPELIJK ONDERZOEK TNO) 07 April 2010, paragraphs [0001], [0002], [0005], [0008]-[0015], fig. 1-3 (Family: none)

Document 5: JP 2003-520094 A (INSTRUMENTARIUM CORP.) 02 July 2003, claims 1, 6, 13, and 15, paragraphs [0003], [0014]-[0017], [0028], [0031], [0035], fig. 1-4 & US 2004/0054393

A1, claims 1, 6, 13, and 15, paragraphs [0003], [0028]-[0032], [0042], [0046], [0050], fig. 1-4 & WO 2001/052731 A1

Claims 1, 3-4, and 6

Document 1

The invention as in claims 1, 3-4, and 6 is disclosed in document 1 cited in the ISR, and lacks novelty and does not involve an inventive step.

Document 1 discloses a brainwave detection electrode (brainwave measurement electrode 40) wherein comblike members are arranged in a direction (in the depth direction in the figure in fig. 16, 17) intersecting the longitudinal direction (the left/right direction in the figure in fig. 16, 17) of the comblike members along a base member (base bottom part 50), and the plurality of comblike members have a plurality of comb tooth parts (contact parts 70) and aligned with one another in the longitudinal direction of the comblike members (in particular, see paragraphs [0030], [0040]-[0043], [0050], fig. 16, 17).

Document 1 also indicates that the base member and the comblike members are integrally formed using the same material, and that these members consist of electro-conductive members (see paragraph [0030]).

Also, document 1 (fig. 16) discloses disposing the comb tooth parts in concentric circles shapes, thereby creating a disposition wherein the comb tooth parts are aligned with a zigzag alternating offset in the depth direction in the figure. Additionally, depending on which group of comb tooth parts is to be understood as a

comblike member, it could be found that the comb tooth parts of the plurality of comblike members disclosed in fig. 16 are disposed so as to be aligned in a straight line and are disposed so as to be aligned with a zigzag alternating offset.

Accordingly, the invention as in claims 1, 3-4, and 6 is disclosed in document 1 cited in the ISR, and lacks novelty.

Also, with respect to the comblike members shown in fig. 17 ("protruding parts 60" that have a comblike disposition (row); see paragraph [0050]) arranged along the base member in the direction intersecting the longitudinal direction of the comblike members, document 1 states "as shown in fig. 17, it is possible to have a plurality of comblike dispositions (rows). The protruding parts 60 may also be formed in a comblike disposition with a single row. Fig. 17 is a drawing explaining an example in which part of the entirety of a brainwave measurement electrode 40 has been cut out in accordance with variant 4; hatching representing a cross-section of the base bottom part 50 has been omitted" (paragraph [0050]). A person skilled in the art could as appropriate make the feature shown in fig. 17 be additionally arranged in the depth direction in the figure, and dispose the comb tooth parts of a plurality of comblike members so as to be aligned with a zigzag alternating offset in the depth direction in the figure.

Claims 1, 3-4, and 6

Document 2

The invention as in claims 1, 3-4, and 6 is

disclosed in document 2 cited in the ISR, and lacks novelty and does not involve an inventive step.

The "tip parts 23a" in document 2 (see paragraph [0028]) correspond to the plurality of "comb tooth parts" of the invention of the present application (in particular, see paragraphs [0026]-[0028], fig. 7, 8).

Also, the comb tooth parts in document 2 are disposed in a lattice shape, but depending on which group of comb tooth parts is to be understood as a comblike member, it could be found that the comb tooth parts of the plurality of comblike members are disposed so as to be aligned in a straight line and are disposed so as to be aligned with a zigzag alternating offset.

Claims 1 and 3-5

Document 3

The invention as in claims 1 and 3-5 is disclosed in document 3 cited in the ISR, and lacks novelty and does not involve an inventive step.

The substantially plate-like "reverse U-shaped metal member 2" in document 3 corresponds to the "comb tooth part" of the invention of the present application (in particular, see claims 1-2, paragraphs [0001]-[0024], fig. 1-9).

Also, a brainwave detection electrode is combined with a comb tooth part (see paragraph [0010]), and there is a high probability that a "base plate 1," where the comb tooth parts are integrated or fixedly provided, has electrical conductivity, so the "base plate 1" of document 3 corresponds to the "base member" of the invention of the present application.

Alternatively, a person skilled in the art could

easily conceive of creating such "base plate 1" using a member that has electrical conductivity.

Also, the comb tooth parts in document 3 are disposed in a lattice shape, but depending on which group of comb tooth parts is to be understood as a comblike member, it could be found that the comb tooth parts of the plurality of comblike members are disposed so as to be aligned in a straight line and are disposed so as to be aligned with a zigzag alternating offset.

Claims 1-4 and 6

Document 4

The invention as in claims 1-4 and 6 is disclosed in document 4 cited in the ISR, and therefore lacks novelty and does not involve an inventive step.

The "base part 1" in document 4 responds to the "base member" of the invention of the present application. Also, among the "teeth 3" disclosed in a lattice shape, the teeth in one row correspond to a "comblike member" in the invention of the present application (in particular, see paragraphs [0001], [0002], [0005], [0008]-[0015], fig. 1-3).

Also, the comb tooth parts in document 4 are disposed in a lattice shape, but depending on which group of comb tooth parts is to be understood as a comblike member, it could be found that the comb tooth parts of the plurality of comblike members are disposed so as to be aligned in a straight line and are disposed so as to be aligned with a zigzag alternating offset.

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**

Claims 1-4 and 6

Document 5

The invention as in claims 1-4 and 6 is disclosed in document 5 cited in the ISR, and therefore lacks novelty and does not involve an inventive step.

The "base part of a spike 12" and the sharp-tipped "spike 12" in document 5 respectively correspond to the "base member" and "comb tooth part" of the invention of the present application (in particular, see claims 1, 6, 13, 15, paragraphs [0003], [0014]-[0017], [0028], [0031], [0035], fig. 1-4).

Document 5 also indicates that the base member and the comb tooth parts are formed from the same material (see claim 1, paragraph [0015], fig. 4F), that the base member and the comb tooth parts may be formed using a plastic material because of cost (claim 13, paragraphs [0015], [0031]), and that the surfaces of the base material and the spike members are coated using a metal with good conductivity (claim 15, paragraphs [0016], [0017], fig. 4F).

Also, it is suggested that the comb tooth parts in document 5 are disposed in a lattice shape, but depending on which group of comb tooth parts is to be understood as a comblike member, it could be found that the comb tooth parts of the plurality of comblike members are disposed so as to be aligned in a straight line and are disposed so as to be aligned with a zigzag alternating offset.