

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 0633 | FOR FURTHER ACTION See paragraph 2 below |
|--|--|

| | | |
|---|---|--------------------------------|
| International application No. PCT/JP2006/311637 | International filing date (day/month/year) 09.06.2006 | Priority date (day/month/year) |
|---|---|--------------------------------|

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

Applicant
NIPPON SHOKUBAI CO., LTD.

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.

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| 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"/> the translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).</p> |
| 2. | <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> |
| 3. | <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> |
| 4. | <p>Additional comments:</p> |

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

the entire international application

claims Nos. 2-3, 7-11

because:

the said international application, or the said claims Nos. _____ relate to the following subject matter which does not require an international search (*specify*):

the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____ are so unclear that no meaningful opinion could be formed (*specify*):

the claims, or said claims Nos. _____ are so inadequately supported by the description that no meaningful opinion could be formed (*specify*):

no international search report has been established for said claims Nos. 2-3, 7-11

a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:

furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13ter.1(a) or (b).

a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-bis of the Administrative Instructions, and such tables were not available to the International Searching Authority in a form and manner acceptable to it.

the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

See Supplemental Box for further details.

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Box No. IV Lack of unity of invention

1. In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has, within the applicable time limit:
- paid additional fees
 - paid additional fees under protest and, where applicable, the protest fee
 - paid additional fees under protest but the applicable protest fee was not paid
 - not paid additional fees
2. This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- complied with
 - not complied with for the following reasons:

The inventions set forth in claims 7-11 relate to a water-absorbing resin composition having a specific liquid diffusion velocity; the invention set forth in claims 1 and 4-6 (the parts depending on claim 1) relate to a method for producing a water-absorbing resin composition which comprises first irradiating inorganic microparticles with ultraviolet light and then mixing with a water-absorbing resin; and the inventions set forth in claims 2-3 and 4-6 (the parts depending on claim 2 or 3) relate to a method for producing a water-absorbing resin composition which comprises mixing inorganic microparticles with a water-absorbing resin and then irradiating with ultraviolet light.

According to the method as claimed in claims 1-6, it cannot be said that a water-absorbing resin composition having the physical data as specified in claims 7-11 can be exclusively obtained. Moreover, it cannot be said that the composition set forth in claims 7-11 can be obtained exclusively by the method set forth in claims 1-6.

4. Consequently, this opinion has been established in respect of the following parts of the international application:
- all parts
 - the parts relating to claims Nos. 1, 4-6

**WRITTEN OPINION OF THE
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| 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 <u>1, 4-6</u> | YES |
| | | Claims _____ | NO |
| | Inventive step (IS) | Claims <u>1, 4-6</u> | YES |
| | | Claims _____ | NO |
| | Industrial applicability (IA) | Claims <u>1, 4-6</u> | YES |
| | | Claims _____ | NO |
| 2. | Citations and explanations: | | |
| | <p>Document 1: JP 5-209022 A (Mitsui Toatsu Chemicals, Inc.), 20 August 1993</p> <p>Document 2: JP 2006-8963 A (Kabushiki Kaisha Inkurizu), 12 January 2006</p> <p>Document 3: JP 2001-11341 A (Kansai Research Institute, Inc.), 16 January 2001</p> <p>Document 4: JP 2000-95965 A (Tokai Carbon Co., Ltd.), 04 April 2000</p> | | |
| | <p>The inventions set forth in claims 1 and 4-6 exhibit novelty and involve an inventive step in relation to the documents cited in the ISR. The documents do not describe a water-absorbing resin composition obtained by adding inorganic microparticles irradiated with ultraviolet light to a water-absorbing resin and the improvement of water-absorbing properties by having this component composition. Moreover, the feature could not be easily conceived of even by a person skilled in the art.</p> | | |

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box IV

Furthermore, the step of mixing inorganic microparticles having been irradiated with ultraviolet light with a water-absorbing resin is clearly different from the step of mixing inorganic microparticles with a water-absorbing resin and then irradiating with ultraviolet light and it cannot be said that the same composition can be always obtained by these production methods.

Such being the case, it is not found that there is a technical relationship among the group of inventions set forth in claims 1 and 4-6 (the parts depending on claim 1), the group of inventions set forth in claims 2-3 and 4-6 (the parts depending on claims 2-3) and the group of inventions set forth in claims 7-11 involving one or more of the same or corresponding special technical features. Thus, these invention groups are not found to be a group of inventions so linked as to form a single general inventive concept.