

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 2005-PCT-396	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/KR2005/003237	International filing date ( <i>day/month/year</i> ) 30 September 2005 (30.09.2005)	Priority date ( <i>day/month/year</i> ) 30 June 2005 (30.06.2005)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant HAN, Sang wook			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
<p>3. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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	Date of issuance of this report 09 January 2008 (09.01.2008)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  <b>Philippe Becamel</b>
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## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PCT

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To: CHUNG, Sang sup  #804 Han-shin IT Tower II, 60-18 Gasan-dong, Geumcheon-gu Seoul 153-801 Republic of Korea
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Date of mailing (day/month/year) <b>30 MARCH 2006 (30.03.2006)</b>
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Applicant's or agent's file reference 2005-PCT-396	<b>FOR FURTHER ACTION</b> See paragraph 2 below
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International application No. <b>PCT/KR2005/003237</b>	International filing date (day/month/year) <b>30 SEPTEMBER 2005 (30.09.2005)</b>	Priority date(day/month/year) 30 JUNE 2005 (30.06.2005)
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International Patent Classification (IPC) or both national classification and IPC  <b>B82B 3/00(2006.01)i</b>
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Applicant  <b>HAN, Sang wook</b>
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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/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Date of completion of this opinion 28 MARCH 2006 (28.03.2006)	Authorized officer LEE, Young Jae Telephone No. 82-42-481-8304 
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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/KR2005/003237

**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, unless otherwise indicated under this item.

This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. 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:

a. type of material

- a sequence listing  
 table(s) related to the sequence listing

b. format of material

- on paper  
 in electronic form

c. time of filing/furnishing

- contained in the international application as filed.  
 filed together with the international application in electronic form.  
 furnished subsequently to this Authority for the purposes of search.

3.  In addition, in the case that more than one version or copy of a sequence listing and/or table 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.

4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

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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	1-5	YES
	Claims	_____	NO
Inventive step (IS)	Claims	1-5	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	1-5	YES
	Claims	_____	NO

2. Citations and explanations :

The present invention relates to a nano-silver sealant composition comprising polydimethylsiloxane, a crosslinking agent, a filler, petroleum hydrocarbon, aminosilane and silver nanoparticles, and a method for the preparation of a nano-silver sealant using the same.

The following documents have been considered for the purpose of this report:

D1 : US6,660,058 B1 (09 December 2003)

D2 : US 6,534,581 B1 (18 March 2003)

D3 : US 6,416,847 B1 (09 July 2002)

1. Novelty and Inventive Step

D1 discloses the preparation method for nanoparticles of silver and silver alloyed with other elements such as platinum (Pt), palladium (Pd), gold (Au), aluminum (Al), Cadmium (Cd) and sulfur (S) in surfactant solutions

D2 discloses a silicon composition prepared by mixing an organopolysiloxane containing an average of at least two silicon-bonded hydroxy groups per molecule and a crosslinking agent in an amount sufficient to cure the composition for preparing a silicon adhesive.

D3 discloses a metallized article and method for making the article, including a substrate having a polyurethane basecoat disposed thereon, with a layer of electrically discrete metallic islands of a corrosion prone metal disposed on the basecoat.

However, none of the documents D1-D3 disclose a nano-silver sealant composition comprising polydimethylsiloxane, a crosslinking agent, a filler, petroleum hydrocarbon, aminosilane and silver nanoparticles. Accordingly, the present invention is not considered to be easily invented from the inventions disclosed in D1-D3 by a person skilled in the art.

Therefore, claims 1-5 meet the criteria set out in PCT Article 33(2) and (3) with respect to novelty and inventive step.

**WRITTEN OPINION OF THE  
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**Supplemental Box**

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

Continuation of :

2. Industrial Applicability

Therefore, the novelty and inventive step of the present invention can be acknowledged, and claimed 1 to 4 appear to be meet the requirement of PCT Article 33(4).