



No. 08-013345-00003-0000

Fecha: 2008-03-28 16:07:36 Dep. 2020 NUECREACIONE
Tira. 11 PATENTEIYII Eve: 378 FASENACIONALI
Act. 329 CTOINFORMACION Folios: 10

Señora

Alix Carmenza Céspedes de Vergel

Jefe de División de Nuevas Creaciones

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

E. _____ S. _____ D. _____

Referencia: Expediente No. 08.013.345

Solicitud de Patente de Invención titulada: "Método para aplicar recubrimientos químicos"

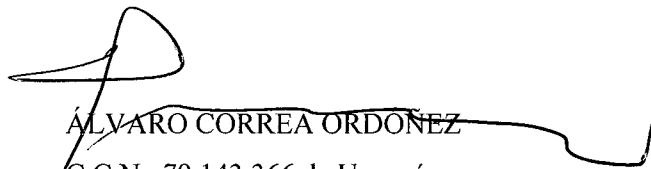
Solicitante: TMC-IP, LLC

MEMORIAL DE ALCANCE

ÁLVARO CORREA ORDÓÑEZ, mayor de edad y vecino de Bogotá D.C., identificado según aparece al pie de mi firma, en mi condición de apoderado de la sociedad en referencia, manifiesto lo siguiente:

El día 11 de febrero de 2008, bajo el número de radicación 08.013.345, presenté la solicitud de patente de invención de la referencia, para la cual adjunto Reporte de Búsqueda Internacional y Opinión Escrita de la solicitud internacional.

Atentamente,


ÁLVARO CORREA ORDÓÑEZ
C.C.No.79.143.366 de Usaquén
T.P.20.281

Anexo: Reporte de Búsqueda Internacional
Opinión Escrita

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:
DAVID A. ROSE
CONLEY ROSE, P.C.
P.O. BOX 3267
HOUSTON, TX 77253-3267

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing (day/month/year) 21 MAR 2008	
Applicant's or agent's file reference 2440-00101 ✓	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/US06/30462	International filing date (day/month/year) 04 August 2006 (04.08.2006)
Applicant TMC-IP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 338.82.70.

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until **30 months** from the priority date (in some Offices even later); otherwise, the applicant must, within **20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demands are filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Tim Meeks Telephone No. 571-272-1423
---	---

Form PCT/ISA/220 (January 2004)

(See notes on accompanying sheet)

RECEIVED

MAR 25 2008

CONLEY ROSE P.C. - HOU
DAR

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 2440-00101	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below	
International application No. PCT/US06/30462	International filing date (day/month/year) 04 August 2006 (04.08.2006)	(Earliest) Priority Date (day/month/year) 12 August 2005 (12.08.2005)
Applicant TMC-IP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☐

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the Report

a. With regard to the **language**, the international search was carried out 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))

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 Rule 43.6 *bis*(a)

c. ☐ With regard to any nucleotide and/or amino acid sequencedisclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable(See Box No. II)

3. ☐ Unity of invention is lacking(See Box No. III)

4. With regard to the title,

☒

the text is approved as submitted by the applicant.

☐

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☐

the text is approved as submitted by the applicant.

☒

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1.

☒

as suggested by the applicant.

☐

as selected by this Authority, because the applicant failed to suggest a figure.

☐

as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/30462

Box IV TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

NEW ABSTRACT

A method of anti-fouling a metal structure disposed in water, the method comprising providing a clean surface on the metal structure, applying a tie coat (204) to the surface (206), and applying a thermoplastic top coat (202) to the tie coat (204).

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/30462

A. CLASSIFICATION OF SUBJECT MATTER		
IPC: B05D 1/36(2006.01);B05D 3/00(2006.01)		
USPC: 427/299,385.5,402,409		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) U.S. : 427/299, 385.5, 402, 409		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y ✓	US 1,397,103 A (LANGFELDT) 15 November 1921 (15.11.1921), column 1, lines 14-21	3
Y ✓	JP 2000-037658 A (CHUGOKU TORYO KK), abstract	4-8, 10, 11, 18, 20
Y ✓	US 1,397,103 A (LANGFELDT) 15 November 1921 (15.11.1921), column 1, lines 14-21	3
X ✓	US 2,838,419 A (FRANCIS) 10 June 1958 (10.06.1958), column 1, 26-67, column 2, lines 18-34	1, 11-17, 19, 24-28
---		-----
Y		3-11, 14, 18, 20-23
X ✓	US 2,579,610 A (PITRE) 25 December 1951 (25.12.1951), column 1, lines 4-10, column 13, lines 11-38, column 16, lines 24-25, column 30, lines 59-60	1, 2, 11-17, 19, 21, 24-28
---		-----
Y		3-11, 14, 18, 20-23
☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.		
* Special categories of cited documents:		
"A"	document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed	
Date of the actual completion of the international search 15 March 2008 (15.03.2008)		Date of mailing of the international search report 21 MAR 2008
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Authorized officer Tim Meeks Telephone No. 571-272-1423

Form PCT/ISA/210 (second sheet) (April 2007)

104
00006

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
DAVID A. ROSE
CONLEY ROSE, P.C.
P.O. BOX 3267
HOUSTON, TX 77253-3267

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference 2440-00101		Date of mailing (day/month/year) 21 MAR 2008
FOR FURTHER ACTION See paragraph 2 below		
International application No. PCT/US06/30462	International filing date (day/month/year) 04 August 2006 (04.08.2006)	Priority date (day/month/year) 12 August 2005 (12.08.2005)
International Patent Classification (IPC) or both national classification and IPC IPC: B05D 1/36(2006.01);B05D 3/00(2006.01) USPC: 427/299,385.5,402,409		
Applicant TMC-IP, LLC		

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/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Date of completion of this opinion 19 March 2008 (19.03.2008)	Authorized officer Tim Meeks Telephone No. 571-272-1423
--	--	---

Form PCT/ISA/237 (cover sheet) (April 2007)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US06/30462

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 43bis.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. 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.
4. ☐ 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.
5. Additional comments:

00008 rde

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US06/30462

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

1. Statement		
Novelty (N)	Claims <u>3-9, 18, 20, 22, 23</u>	YES
	Claims <u>1, 2, 10-17, 19, 21, 24-28</u>	NO
Inventive step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-28</u>	NO
Industrial applicability (IA)	Claims <u>1-28</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Please See Continuation Sheet

00009 107

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US06/30462

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

V. 2. Citations and Explanations:

Claims 1-2, 11-17, 19, 21, 24-28 lack novelty under PCT Article 33(2) as being anticipated by Pitre (US 2,579,610). Pitre discloses a method for applying an anti-fouling coating onto a marine surface (See column 1, lines 4-10, the method comprising: (a) heating an anti-fouling mixture at a temperature sufficient to maintain said mixture as a liquid, (b) agitating said liquid sufficiently to maintain a homogeneous mixture) (See column 13, lines 11-38), and (c) applying said agitated liquid to the marine surface (See column 16, lines 24-25) that has previously been coated with a hot-melt anticorrosive paint (claimed tie coat) onto metallic (See column 30, lines 59-60) surface (See column 2, lines 47-50). As to claim 19, the top coat is heated to a temperature 3000F before applying to the surface (See column 13, lines 27-35). As to claim 21, the antifouling paint is normally applied in thickness of 1/2mm to ¾ mm (19.7-29.5 mils).

Claims 1, 11-17, 19, 24-28 lack novelty under PCT Article 33(2) as being anticipated by Francis (US 2,838,419) and Francis (US 2,602,752). Francis '419 discloses a method for applying a thermoplastic coating onto a metallic surface exposed under sea water (See column 1, lines 26-27), the method comprising: (a) depositing a hot-melt anticorrosive paint (claimed tie coat) onto the metallic surface (See column 2, lines 18-24), and (b) depositing a hot plastic antifouling paint (claimed thermoplastic material) onto said anticorrosive paint coat (See column 1, lines 65-67). As to claims 11-17, Francis '419 discloses that the antifouling paint is a paint described in the Patent 2,602,752 (See column 4, lines 26-32). The Patent 2,602,752 discloses antifouling paint comprising a wax and copper (See column 4, lines 9-24). As to claim 19, Francis '419 discloses that the top coat is heated to a temperature of 250- 3000F before applying to the surface (See column 3, lines 53-65).

Claims 3, 9, 14, 21-23 lack an inventive step under PCT Article 33(3) as being obvious over Pitre/Francis '419 and Francis '752/. The cited prior art is applied here for the same reasons as above. The cited prior art fails to teach that the surface is cleaned before painting. However, it is well known in the coating art to clean the surface to be painted before applying the paint. As to claims 9, 21-23, it is well known in the art that the thicker the layer the better protection. Therefore, thicknesses of both paint layers would depend on particular protection needed. For example, Francis '419 teaches that the anticorrosive paint composition deposits a single coat of thicknesses up to the order of twenty mils that will readily spread smoothly and will not run, sag or flow from a vertical surface during painting (See column 3, lines 59-65). The coating of 20 mils is exceptionally resistant to penetration by sea water (See column 4, lines 4-15). The anticorrosive coat can be top coated with a relatively thinner coat of more expensive antifouling paint (See column 4, lines 16-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have

00010 108

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US06/30462

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

determined the optimum values of the relevant parameters (including those of claimed invention) in the cited prior art through routine experimentation depending on particular coating composition in the absence of a showing of criticality.
As to claim 14, the Examiner takes official notice that it is a common knowledge in the art that leach rate of toxic materials should not exceed a certain limit established by Regulatory agencies. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adjusted the leach rate of toxic materials (including those of claimed invention) in the cited prior art not to exceed a certain limit.

Claim 3 lacks an inventive step under PCT Article 33(3) as being obvious over Pitre/Francis '419 and Francis '752/, in view of Langfeldt (US 1,397,103).
The cited prior art is applied here for the same reasons as above. The cited prior art fails to teach that the surface is cleaned before painting.
Langfeldt teaches that the practice of coating ship bottoms has been to coat the cleaned steel plates of the ships' hulls first with an anticorrosive paint and to coat anti-fouling paint to the dried anticorrosive coat of to prevent barnacles, seaweeds and the like from attaching themselves to the bottom (See page 1, lines 14-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have cleaned the surface before applying the anticorrosive paint in the cited prior art, according to conventional practice.

Claims 4-8, 10, 11, 18, 20 lack an inventive step under PCT Article 33(3) as being obvious over Pitre/Francis '419 and Francis '752/, in view of Inoue et al (JP 2000037658).
The cited prior art is applied here for the same reasons as above. The cited prior art fails to teach that the anticorrosive coat is an epoxy that includes a curing agent and a resin (Claim 4); where the curing agent comprises a polyamine (Claim 5), and the resin comprises a bisphenol resin (Claim 6).
Inoue et al teach that a corrosion proofing paint containing a bisphenol epoxy resin and a polyamine hardening agent or a polyol and a polyisocyanate-based hardening agent, applied to the ship's outside plate, as an undercoating paint (a primer) for antifouling top coat provides superior anticorrosion (See Abstract).
It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a corrosion proofing paint containing a bisphenol epoxy resin and a polyamine hardening agent for forming an anticorrosive coat in the cited prior art with the expectation of providing the desired superior anticorrosion, as taught by Inoue et al.
As to claims 7-8, 11, 18, 20, the Examiner takes official notice that limitations of the claims 7-8, 18, 20 would be met inherently because the process of the cited prior art would be substantially identical to that of claimed process.

Claims 1-28 meet the criteria set out in PCT Article 33(4), and thus meet industrial applicability because the subject matter claimed can be made or used in industry.