

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

The International Bureau of WIPO
34, Chemin des Colombettes
1211 Geneva 20
SUISSE

NOTIFICATION CONCERNING
DOCUMENTS TRANSMITTED

Date of mailing
(day/month/year)

03-12-2009

International application No: **PCT/IT2008/000532**

This International Preliminary Examination Authority transmits herewith the following documents:

1. ☒ demand (Rule 61.1(a)).
2. ☐ copy of the international preliminary examination report and its annexes (Rule 71.1).
3. ☐ — other documents (*specify*):

corrected demand, see your IB/336

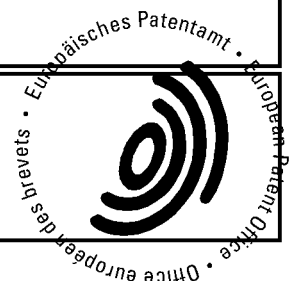
Name and mailing address of the IPEA/



European Patent Office
D-80298 Munich
Tel. (+49-89) 2399-0
Fax: (+49-89) 2399-4465

Authorized officer

Dekker, Monique
Tel: (+31-70)340-4046



The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:

IPEA/ **EUROPEAN PATENT OFFICE**

PCT

CHAPTER II

DEMAND

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty.

For International Preliminary Examining Authority use only	
Identification of IPEA /EP	Date of receipt of DEMAND 09-11-2009
Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION	
Applicant's or agent's file reference 08/123/EST	
International application No. PCT/IT2008/000532	International filing date (day/month/year) 04.08.2008
(Earliest) Priority date (day/month/year) 09.04.2008	
Title of invention METHOD AND APPARATUS FOR CARRYING OUT NICKEL AND HYDROGEN EXOTHERMAL REACTIONS	
Box No. II APPLICANT(S)	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) PASCUCCI, Maddalena Via Ezio, 24 I-00192 ROMA ITALY	
Telephone No.	
Facsimile No.	
Applicant's registration No. with the Office	
<input type="checkbox"/> E-mail authorization: Marking this check-box authorizes the International Preliminary Examining Authority to use the e-mail address indicated in this Box to send, if the Authority so wishes, advance copies of notifications in respect of this international application. (See also the Notes to Box No. II.)	
E-mail address	
State (that is, country) of nationality: ITALY	State (that is, country) of residence: ITALY
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) ROSSI, Andrea corrected by ex-officio	
State (that is, country) of nationality:	State (that is, country) of residence: IT
<input type="checkbox"/> Further applicants are indicated on a continuation sheet.	

Sheet No. 2

International application No.
PCT/IT2008/000532**Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**The following person is ☒ agent ☐ common representativeand ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.Name and address: (Family name followed by given name; for a legal entity, full official designation.
The address must include postal code and name of country.)CICO GNA, Franco
UFFICIO INTERNAZIONALE BREVETTI
DOTT. PROF. FRANCO CICO GNA
VIA VISCONTI DI MODRONE, 14/A
I-20122 MILANO - ITALY

Telephone No.

+39 02 76000209

Facsimile No.

+39 02 76021470

Agent's registration No. with the Office

43950

☒ **E-mail authorization:** Marking this check-box authorizes the International Preliminary Examining Authority to use the e-mail address indicated in this Box to send, if the Authority so wishes, advance copies of notifications in respect of this international application. (See also the Notes to Box No. II.)

E-mail address

ufficio@brevetticicogna.co
m☐ **Address for correspondence:** Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION****Statement concerning amendments:***

1 The applicant wishes the international preliminary examination to start on the basis of:

☒ the international application as originally filedthe description ☐ as originally filed☒ as amended under Article 34the claims ☐ as originally filed☐ as amended under Article 19 (together with any accompanying statement)☒ as amended under Article 34the drawings ☒ as originally filed☐ as amended under Article 342. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.3. ☐ Where the IPEA wishes to start the international preliminary examination at the same time as the international search in accordance with Rule 69.1(b), the applicant requests the IPEA to postpone the start of the international preliminary examination until the expiration of the applicable time limit under Rule 69.1(d).4. ☐ The applicant expressly wishes the international preliminary examination to start earlier than at the expiration of the applicable time limit under Rule 54bis.1(a).

* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: ENGLISH☒ which is the language in which the international application was filed.☐ which is the language of a translation furnished for the purposes of international search.☐ which is the language of publication of the international application.☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.**Box No. V ELECTION OF STATES**

The filing of this demand constitutes the election of all Contracting States which are designated and are bound by Chapter II of the PCT.

Sheet No. 3

International application No.
PCT/IT2008/000532**Box No. VI CHECK LIST**

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- | | | | |
|--|---|-------|--------|
| 1. translation of international application | : | _____ | sheets |
| 2. amendments under Article 34 | : | 7 | sheets |
| 3. copy (or, where required, translation) of amendments under Article 19 | : | _____ | sheets |
| 4. copy (or, where required, translation) of statement under Article 19 | : | _____ | sheets |
| 5. letter | : | 1 | sheets |
| 6. other (<i>specify</i>) | : | _____ | sheets |

For International Preliminary Examining Authority use only

received not received

- | | |
|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |

The demand is also accompanied by the item(s) marked below:

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> fee calculation sheet | 5. <input type="checkbox"/> statement explaining lack of signature |
| 2. <input type="checkbox"/> original separate power of attorney | 6. <input type="checkbox"/> sequence listing in electronic form |
| 3. <input type="checkbox"/> original general power of attorney | 7. <input type="checkbox"/> tables in electronic form related to a sequence listing |
| 4. <input type="checkbox"/> copy of general power of attorney; reference number, if any: | 8. <input checked="" type="checkbox"/> other (<i>specify</i>): EPO FORM 1010 |

Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).


Franco Ciozna

For International Preliminary Examining Authority use only

1. Date of actual receipt of DEMAND: 09-11-2009

2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):

3. ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply
☐ The applicant has been informed accordingly
4. ☐ The date of receipt of the demand is WITHIN the time limit of 19 months from the priority date as extended by virtue of Rule 80.5.
5. ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.

6. ☐ The date of receipt of the demand is AFTER the expiration of the time limit under Rule 54bis.1(a) and item 7 or 8, below, does not apply
7. ☐ The date of receipt of the demand is WITHIN the time limit under Rule 54bis.1(a) as extended by virtue of Rule 80.5
8. ☐ Although the date of receipt of the demand is after the expiration of the time limit under Rule 54bis.1(a), the delay in arrival is EXCUSED pursuant to Rule 82

For International Bureau use only

Demand received from IPEA on:

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF DEFECTS IN DEMAND

(PCT Rule 60.1(e))

To:

EP (34)

European Patent Office
Postbus 5818
Patentlaan 2
NL-2280 HV RIJSWIJK
PAYS-BAS

in its capacity as International Preliminary Examining Authority

Date of mailing (day/month/year)

16 November 2009 (16.11.2009)

International application No.

PCT/IT2008/000532

International filing date (day/month/year)

04 August 2008 (04.08.2008)

Applicant

PASCUCCI MADDALENA et al

The International Bureau hereby calls the attention of the International Preliminary Examining Authority to the defects in the demand indicated below:

1. ☐ it does not permit the identification of the international application to which it relates (Rule 60.1(b)).
2. ☐ it does not contain the required petition (Rules 53.2(a)(i) and 53.3).
3. ☐ it does not contain the required indications concerning the agent as specified in the Annex (Rules 53.2(a)(ii) and 53.5).
4. ☐ it does not contain the required indications concerning the international application as specified in the Annex (Rules 53.2(a)(iii) and 53.6).
5. ☐ it is not submitted in the required language which is (Rule 55.1).
6. ☐ it is not made on the printed form (Rule 53.1(a)).
7. ☐ it is presented as a computer print-out the particulars of which do not comply with the Administrative Instructions (Rule 53.1(a)).
8. ☒ it does not contain the required indications concerning the applicant as specified in the Annex (Rules 53.2(a)(ii), 53.4 and 60.1(a-bis)).
9. ☐ it does not contain the required signature as specified in the Annex (Rules 53.2(b), 53.8, 60.1(a-ter) and 90.4).

Other observations, if necessary:

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

N'Diaye Anta

e-mail pt09.pct@wipo.int

Telephone No. +41 22 338 74 09

Facsimile No. +41 22 338 71 30

Form PCT/IB/336 (January 2004)

1/D9HD5DKG

Continuation of item 3: As to indications concerning **the agent** (Rules 53.2(a)(ii) and 53.5), the demand:

- a. ☐ does not properly indicate the agent's name (*specify*):
- b. ☐ does not indicate the agent's address.
- c. ☐ does not properly indicate the agent's address (*specify*):

Continuation of item 4: As to indications concerning **the international application**, the demand does not indicate:

- a. ☐ the international filing date.
- b. ☐ the international application number.
- c. ☐ the name of the receiving Office, where the international application number was not known to the applicant at the time the demand was filed.
- d. ☐ the title of the invention.

Continuation of item 8: As to indications concerning **the applicant*** (Rules 53.2(a)(ii), 53.4 and 60.1(a-bis)), the demand:

- a. ☒ does not indicate all the applicants.
- b. ☐ does not properly indicate the applicant's name (*specify*):
- c. ☐ does not indicate the applicant's address.
- d. ☐ does not properly indicate the applicant's address (*specify*):
- e. ☐ does not indicate the applicant's nationality.
- f. ☐ does not indicate the applicant's residence.

* Although Rule 53.2(a)(ii) require indications concerning the applicant, or if there are several applicants, of each of them, for the purposes of Rule 53.4, if there is more than one applicant, it shall be sufficient that the required indications be provided in respect of one of them who has the right according to Rule 54.2 to make a demand (Rule 60.1(a-bis)).

Continuation of item 9: As to requirements concerning **signature** (Rules 53.2(b), 53.8, 60.1(a-ter) and 90.4), the demand:

- a. ☐ is not signed* by the applicant or, if there is more than one applicant, by at least one of them.
- b. ☐ is signed by what appears to be an agent/common representative but
 - ☐ the demand is not accompanied by a power of attorney appointing him.
 - ☐ the power of attorney accompanying the demand is not signed by all the applicants for the elected States.

* Although Rule 53.2(b) requires that all applicants must sign the demand (e.g. including all inventors/applicants for the designation of the United States of America), for the purposes of Rule 53.8, if there is more than one applicant, it shall be sufficient that the demand be signed by one of them (Rule 60.1(a-ter)).

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

The International Bureau of WIPO
34, Chemin des Colombettes
1211 Geneva 20
SUISSE

NOTIFICATION CONCERNING
DOCUMENTS TRANSMITTED

Date of mailing
(day/month/year)

16-11-2009

International application No: **PCT/IT2008/000532**

This International Preliminary Examination Authority transmits herewith the following documents:

1. ☒ demand (Rule 61.1(a)).
2. ☐ copy of the international preliminary examination report and its annexes (Rule 71.1).
3. ☐ — other documents (*specify*):

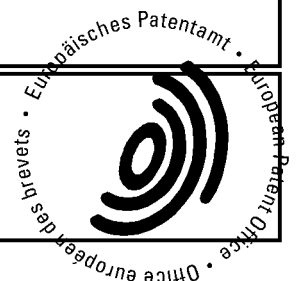
Name and mailing address of the IPEA/



European Patent Office
D-80298 Munich
Tel. (+49-89) 2399-0
Fax: (+49-89) 2399-4465

Authorized officer

Dekker, Monique
Tel: (+31-70)340-4046



PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

Cicogna, Franco
Ufficio Internazionale Brevetti, Do
o Cicogna;
Via Visconti di Modrone, 14/A;
I-20122 Milano
ITALIE

NOTIFICATION OF RECEIPT OF DEMAND BY COMPETENT INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

(PCT Rules 59.3(e) and 61.1(b), first sentence
and Administrative Instructions, Section 601(a))

Date of mailing
(day/month/year)

16-11-2009

Applicant's or agent's file reference
08/123/EST

IMPORTANT NOTIFICATION

International application No.

PCT/IT2008/000532

International filing date (day/month/year)

4 August 2008 (04-08-2008)

Priority date (day/month/year)

9 April 2008 (09-04-2008)

Applicant

Pascucci Maddalena et al.

1. The applicant is hereby **notified** that this International Preliminary Examining Authority considers the following date as the date of receipt of the demand for international preliminary examination of the international application:

9 November 2009 (09-11-2009)

2. This date of receipt is:

- ☒ the actual date of receipt of the demand by this Authority (Rule 61.1(b)).
- ☐ the actual date of receipt of the demand on behalf of this Authority (Rule 59.3(e)).
- ☐ the date on which this Authority has, in response to the invitation to correct defects in the demand (Form PCT/IPEA/404), received the required corrections.

3. ☐ **ATTENTION:** That date of receipt is **after** the expiration of 19 months from the priority date. Consequently, in respect of some Offices, the demand does not have the effect of postponing the entry into the national phase until 30 months from the priority date (or later in some Offices) (Article 39(1)) and the acts for entry into the national phase must therefore be performed within 20 months from the priority date (or later in some Offices). **However**, in respect of some other Offices, the time limit of 30 months (or later) may nevertheless apply. 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.

- ☐ (If applicable) This notification confirms the information given by telephone, facsimile transmission or in person on:

4. Only where paragraph 3 applies, a copy of this notification has been sent to the International Bureau.

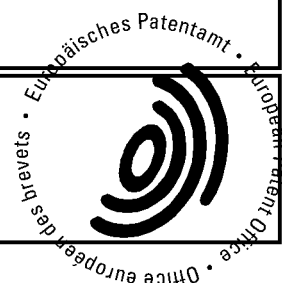
Name and mailing address of the IPEA/



European Patent Office
D-80298 Munich
Tel. (+49-89) 2399-0
Fax: (+49-89) 2399-4465

Authorized officer

Dekker, Monique
Tel: (+31-70)340-4046



The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:

IPEA/ **EUROPEAN PATENT OFFICE**

RECEIVED BY FAX

PCT

EPO - Munich
3

CHAPTER II

DEMAND

10. Nov. 2009

Zur Kasse

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty.

For International Preliminary Examining Authority use only	
Identification of IPEA	Date of receipt of DEMAND
Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION	
Applicant's or agent's file reference 08/123/EST	
International application No. PCT/IT2008/000532	International filing date (day/month/year) 04.08.2008
(Earliest) Priority date (day/month/year) 09.04.2008	
Title of invention METHOD AND APPARATUS FOR CARRYING OUT NICKEL AND HYDROGEN EXOTHERMAL REACTIONS	
Box No. II APPLICANT(S)	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) PASCUCCI, Maddalena Via Ezio, 24 I-00192 ROMA ITALY	Telephone No.
	Facsimile No.
	Applicant's registration No. with the Office
<input type="checkbox"/> E-mail authorization: Marking this check-box authorizes the International Preliminary Examining Authority to use the e-mail address indicated in this Box to send, if the Authority so wishes, advance copies of notifications in respect of this international application. (See also the Notes to Box No. II.)	E-mail address
State (that is, country) of nationality: ITALY	State (that is, country) of residence: ITALY
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)	
State (that is, country) of nationality:	State (that is, country) of residence:
<input type="checkbox"/> Further applicants are indicated on a continuation sheet.	

Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCEThe following person is ☒ agent ☐ common representativeand ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*CICOGNA, Franco
UFFICIO INTERNAZIONALE BREVETTI
DOTT.PROF. FRANCO CICOGNA
VIA VISCONTI DI MODRONE, 14/A
I-20122 MILANO - ITALY

Telephone No.

+39 02 76000209

Facsimile No.

+39 02 76021470

Agent's registration No. with the Office

43950

☒ **E-mail authorization:** Marking this check-box authorizes the International Preliminary Examining Authority to use the e-mail address indicated in this Box to send, if the Authority so wishes, advance copies of notifications in respect of this international application. *(See also the Notes to Box No. II.)*

E-mail address

ufficio@brevetticicogna.com

☐ **Address for correspondence:** Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION****Statement concerning amendments:***

1. The applicant wishes the international preliminary examination to start on the basis of:

☒ the international application as originally filedthe description ☐ as originally filed☒ as amended under Article 34the claims ☐ as originally filed☐ as amended under Article 19 (together with any accompanying statement)☒ as amended under Article 34the drawings ☒ as originally filed☐ as amended under Article 342. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.3. ☐ Where the IPEA wishes to start the international preliminary examination at the same time as the international search in accordance with Rule 69.1(b), the applicant requests the IPEA to **postpone** the start of the international preliminary examination until the expiration of the applicable time limit under Rule 69.1(d).4. ☐ The applicant expressly wishes the international preliminary examination to **start earlier** than at the expiration of the applicable time limit under Rule 54bis.1(a).

* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: ENGLISH☒ which is the language in which the international application was filed.☐ which is the language of a translation furnished for the purposes of international search.☐ which is the language of publication of the international application.☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.**Box No. V ELECTION OF STATES**

The filing of this demand constitutes the election of all Contracting States which are designated and are bound by Chapter II of the PCT.

Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- | | | | |
|--|---|---|--------|
| 1. translation of international application | : | | sheets |
| 2. amendments under Article 34 | : | 7 | sheets |
| 3. copy (or, where required, translation) of amendments under Article 19 | : | | sheets |
| 4. copy (or, where required, translation) of statement under Article 19 | : | | sheets |
| 5. letter | : | 1 | sheets |
| 6. other (<i>specify</i>) | : | | sheets |

For International Preliminary Examining Authority use only

received	not received
----------	--------------

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

The demand is also accompanied by the item(s) marked below:

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> fee calculation sheet | 5. <input type="checkbox"/> statement explaining lack of signature |
| 2. <input type="checkbox"/> original separate power of attorney | 6. <input type="checkbox"/> sequence listing in electronic form |
| 3. <input type="checkbox"/> original general power of attorney | 7. <input type="checkbox"/> tables in electronic form related to a sequence listing |
| 4. <input type="checkbox"/> copy of general power of attorney; reference number, if any: | 8. <input checked="" type="checkbox"/> other (<i>specify</i>): EPO FORM 1010 |

Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).


Franco Cieogna

For International Preliminary Examining Authority use only

1. Date of actual receipt of DEMAND:

2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):

3. ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply.

☐ The applicant has been informed accordingly.

4. ☐ The date of receipt of the demand is WITHIN the time limit of 19 months from the priority date as extended by virtue of Rule 80.5.

5. ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.

6. ☐ The date of receipt of the demand is AFTER the expiration of the time limit under Rule 54bis.1(a) and item 7 or 8, below, does not apply.

7. ☐ The date of receipt of the demand is WITHIN the time limit under Rule 54bis.1(a) as extended by virtue of Rule 80.5.

8. ☐ Although the date of receipt of the demand is after the expiration of the time limit under Rule 54bis.1(a), the delay in arrival is EXCUSED pursuant to Rule 82.

For International Bureau use only

Demand received from IPEA on:

CLAIMS

1. A method for carrying out an hexothermal reaction of nickel and hydrogen, **characterized in that**
5 said method comprises the steps of providing a metal tube, introducing into said metal tube a nanometric particle nickel powder and injecting into said metal tube a hydrogen gas having a temperature much greater than 150°C and a pressure much greater than 2 bars.

10 2. A method according to claim 1, **characterized in that** said hydrogen temperature varies in a range from 150 to 500°C.

3. A method according to claim 1, **characterized in that** said nickel powder is a nickel isotope powder.

15 4. A method according to claim 1, **characterized in that** said hydrogen is injected into said tube under a pulsating pressure.

5. A method according to claims 1 and 2, **characterized in that** said hydrogen temperature is a
20 variable temperature which varies in said range from 150 to 500°C.

6. A method according to claim 1, **characterized in that** said metal tube is a copper metal tube.

7. A modular apparatus for providing a
25 hexothermal reaction by carrying out the method according to claim 1, **characterized in that** said apparatus comprises a metal tube (2) including a nanometric particle nickel powder (3) and a high temperature and pressure hydrogen gas.

30 8. A method according to claim 1, **characterized in that** in said method catalyze materials are used.

9. An apparatus method according to claim 7, **characterized in that** said nickel powder filled metal

tube (2) is a copper tube, said copper tube further including at least a heating electrical resistance, said tube being encompassed by a jacket (7) including either water and boron or only boron, said jacket (7) being encompassed by a further lead jacket (8) in turn optionally encompassed by a steel layer (9), said jackets (7, 8) being adapted to prevent radiations emitted from said copper tube (2) from exiting said copper tube (2), thereby also transforming said radiations into thermal energy.

10. An apparatus according to claim 1, **characterized in that** said apparatus comprises, encompassing said nickel powder, hydrogen and electric resistance (101) containing copper tube (100) a first steel-boron armored construction (102) encompassed by a second lead armored construction (103) for protecting said copper tube (100), a hydrogen bottle connection assembly (106) and a hydrogen bottle (107), said apparatus further comprising, outside of said lead armored construction (103), a cooling water steel outer pipe assembly (105).

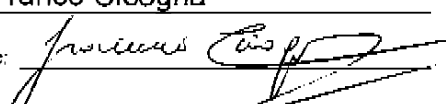
PCT

CHAPTER II

Zur Kasse

FEE CALCULATION SHEET

Annex to the Demand

International application No. PCT/IT2008/000532	For International Preliminary Examining Authority use only								
Applicant's or agent's file reference 08/123/EST	Date stamp of the IPEA								
Applicant PASCUCCI, Maddalena									
CALCULATION OF PRESCRIBED FEES									
1. Preliminary examination fee	1.675,00 P								
2. Handling fee (<i>Applicants from certain States are entitled to a reduction of 90% of the handling fee. Where the applicant is (or all applicants are) so entitled, the amount to be entered at H is 10% of the handling fee.</i>)	121,00 H								
3. Total of prescribed fees Add the amounts entered at P and H and enter total in the TOTAL box	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> 1.796,00 </div> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> TOTAL </div>								
MODE OF PAYMENT <i>(Not all modes of payment may be available at all IPEAs)</i>									
<table style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> authorization to charge deposit account with the IPEA (see below)</td> <td><input type="checkbox"/> cash</td> </tr> <tr> <td><input type="checkbox"/> cheque</td> <td><input type="checkbox"/> revenue stamps</td> </tr> <tr> <td><input type="checkbox"/> postal money order</td> <td><input type="checkbox"/> coupons</td> </tr> <tr> <td><input type="checkbox"/> bank draft</td> <td><input type="checkbox"/> other (specify):</td> </tr> </table>		<input checked="" type="checkbox"/> authorization to charge deposit account with the IPEA (see below)	<input type="checkbox"/> cash	<input type="checkbox"/> cheque	<input type="checkbox"/> revenue stamps	<input type="checkbox"/> postal money order	<input type="checkbox"/> coupons	<input type="checkbox"/> bank draft	<input type="checkbox"/> other (specify):
<input checked="" type="checkbox"/> authorization to charge deposit account with the IPEA (see below)	<input type="checkbox"/> cash								
<input type="checkbox"/> cheque	<input type="checkbox"/> revenue stamps								
<input type="checkbox"/> postal money order	<input type="checkbox"/> coupons								
<input type="checkbox"/> bank draft	<input type="checkbox"/> other (specify):								
AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT <i>(This mode of payment may not be available at all IPEAs)</i>									
<input checked="" type="checkbox"/> Authorization to charge the total fees indicated above.	IPEA/ EP								
<input checked="" type="checkbox"/> <i>(This check-box may be marked only if the conditions for deposit accounts of the IPEA so permit)</i> Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.	Deposit Account No.: 28070095								
	Date: November 9, 2009								
	Name: Franco Cicogna								
	Signature: 								



Payment of fees and costs

European Patent Office
Treasury and Accounts
D-80298 München

Fax: (+49-89) 2399-2528
(only for matters relating
to accounts)

Please complete in typescript only

01	Name of payer	UFFICIO INTERNAZIONALE BREVETTI	Payer's reference	08/123/EST
		DOTT. PROF. FRANCO CICO GNA		
02	Address	Via Visconti di Modrone, 14/A	Mode of payment	Bank/giro office
		I-20122 MILANO	<input type="checkbox"/> Bank/giro transfer ¹	
		ITALY	<input type="checkbox"/> Enclosed cheque No.	
			<input checked="" type="checkbox"/> Debit from deposit account with the EPO is requested ²	Deposit account No. 28070095

Patent application / patent No. (please use a separate form for each application)

03	EP	PCT/IT2008/000532	PCT	03
----	----	-------------------	-----	----

	Code		Currency	Amount
04	001	Filing fee	EUR	
05	002	Search fee	EUR	
06	005	Designation fee(s) ³	EUR	
07	015	Claims fee(s) (Rule 31(1) EPC)	EUR	
08	055	Additional copy	EUR	
09	006	Examination fee	EUR	
10	007	Fee for grant including fee for printing (up to 35 pages)	EUR	
11	008	Additional fee for printing (more than 35 pages)	EUR	
12	033	Renewal fee for the 3rd year	EUR	
13	034	Renewal fee for the 4th year	EUR	
14	035	Renewal fee for the 5th year	EUR	
15		Extension fee(s) for ⁴ :	EUR	
16	021	Fee for preliminary exam.	EUR	1,675.00
17	224	Handling fee	EUR	121.00
18			EUR	
19			EUR	
20			EUR	
21			EUR	
22		Total	EUR	1,796.00

Franco Cicogna

Signature

Franco Cicogna

Milan, 9.11.2009

Place, date

Dott. Prof. Franco Cicogna**UFFICIO INTERNAZIONALE BREVETTI
FONDATA NEL 1902**

- ☐ Deposito, ottenimento e difesa di brevetti d'invenzione, modelli di utilità e ornamentali e marchi d'Impresa in Italia e all'estero
- ☐ Ricerche sull'esistenza di eventuali brevetti anteriori
- ☐ Fornitura copie brevetti
- ☐ Consulenze

BY DHL
(Anticipated by fax)

Telefax: 02.76021470**02.76009604**

E-mail: ufficio@brevetticicogna.com

20122 Milano, 09.11.2009

VIA VISCONTI DI MODRONE, 14/A

TELEF. 02.76000209 (10 linee R.A.)

02.76006338-02.76000728-02.76005531

02.76002180-02.76001938

EUROPEAN PATENT OFFICE
Directorate General 2
Erhardtstrasse 27
D-80298 MÜNCHEN
GERMANY

Our. Ref.: PASCUCCI 08/123/EST

Rc: International Patent Application No. PCT/IT2008/000532

in the Name of : Pascucci, Maddalena

Claiming the priority of Italian Patent Application No. MI2008A 000629

Filed on 09.04.2008

Title: "Method and apparatus for carrying out nickel and hydrogen exothermal reactions"

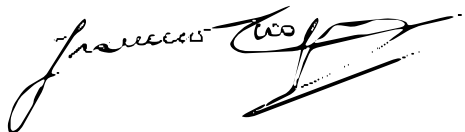
Dear Sirs,

We send herewith enclosed the Demand under article 31 of Patent Cooperation Treaty together with the payment of the requested fee.

Moreover we enclose herewith our amendments in reply to the written opinion (PCT Rule 43bis1)

Thank you for the cooperation.

Yours faithfully,



Encls.

16

16

CLAIMS

1. A method for carrying out an hexothermal reaction of nickel and hydrogen, **characterized in that**
5 said method comprises the steps of providing a metal tube, introducing into said metal tube a nanometric particle nickel powder and injecting into said metal tube a hydrogen gas having a temperature much greater than 150°C and a pressure much greater than 2 bars.

10 2. A method according to claim 1, **characterized in that** said hydrogen temperature varies in a range from 150 to 500°C.

3. A method according to claim 1, **characterized in that** said nickel powder is a nickel isotope powder.

15 4. A method according to claim 1, **characterized in that** said hydrogen is injected into said tube under a pulsating pressure.

5. A method according to claims 1 and 2, **characterized in that** said hydrogen temperature is a variable temperature which varies in said range from
20 150 to 500°C.

6. A method according to claim 1, **characterized in that** said metal tube is a copper metal tube.

7. A modular apparatus for providing a
25 hexothermal reaction by carrying out the method according to claim 1, **characterized in that** said apparatus comprises a metal tube (2) including a nanometric particle nickel powder (3) and a high temperature and pressure hydrogen gas.

30 8. A method according to claim 1, **characterized in that** in said method catalyze materials are used.

9. An apparatus method according to claim 7, **characterized in that** said nickel powder filled metal

17

17

tube (2) is a copper tube, said copper tube further including at least a heating electrical resistance, said tube being encompassed by a jacket (7) including either water and boron or only boron, said jacket (7) being encompassed by a further lead jacket (8) in turn optionally encompassed by a steel layer (9), said jackets (7, 8) being adapted to prevent radiations emitted from said copper tube (2) from exiting said copper tube (2), thereby also transforming said radiations into thermal energy.

10. An apparatus according to claim 1, characterized in that said apparatus comprises, encompassing said nickel powder, hydrogen and electric resistance (101) containing copper tube (100) a first steel-boron armored construction (102) encompassed by a second lead armored construction (103) for protecting said copper tube (100), a hydrogen bottle connection assembly (106) and a hydrogen bottle (107), said apparatus further comprising, outside of said lead armored construction (103), a cooling water steel outer pipe assembly (105).