PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| EFFECTIVE DATE: | 07/13/2007 |

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------------|----------------|
| Degussa AG (now Degussa GmbH) | 07/17/2007 |

RECEIVING PARTY DATA

| Name: | Umicore AG & Co. KG | | |
|-----------------|------------------------|--|--|
| Street Address: | Rodenbacher Chaussee 4 | | |
| City: | Hanau | | |
| State/Country: | GERMANY | | |
| Postal Code: | 63457 | | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|----------------|---------|
| Patent Number: | 6348620 |

CORRESPONDENCE DATA

Fax Number: (404)685-6948

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 404-815-3648

Email: wmartin@sgrlaw.com

Correspondent Name: Wilsa N. Martin

Address Line 1: 1230 Peachtree St. NE
Address Line 2: Suite 3100, Promenade II
Address Line 4: Atlanta, GEORGIA 30309

ATTORNEY DOCKET NUMBER: 034166.035

NAME OF SUBMITTER: Wilsa N. Martin

Total Attachments: 17 source=035assig#page1.tif source=035assig#page2.tif

PATENT REEL: 019872 FRAME: 0323

500361658

OP 840.00 6



| RECORDATION FORM COVER SHEET | | | | | |
|---|--|--|--|--|--|
| PATENTS ONLY | | | | | |
| To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. | | | | | |
| 1. Name of conveying party(ies) | 2. Name and address of receiving party(ies) | | | | |
| Degussa AG (now Degussa GmbH as shown by enclosed Notarial Certification) | Name: Umicore AG & Co. KG | | | | |
| Certification) | Internal Address: | | | | |
| | | | | | |
| Additional name(s) of conveying party(ies) attached? Yes No 3. Nature of conveyance/Execution Date(s): | Street Address: Rodenbacher Chaussee 4 | | | | |
| Execution Date(s) | Street Address. Rodenbacher Chaussee 4 | | | | |
| ✓ Assignment Merger | N-100-20 | | | | |
| Security Agreement Change of Name | City: Hanau | | | | |
| Joint Research Agreement | Ctata | | | | |
| Government Interest Assignment | State: | | | | |
| Executive Order 9424, Confirmatory License | Country: Germany Zip: 63457 | | | | |
| Other | Additional name(s) & address(es) attached? Yes No | | | | |
| 4. Application or patent number(s): | document is being filed together with a new application. | | | | |
| A. Patent Application No.(s) | B. Patent No.(s) | | | | |
| 6,348,620 | | | | | |
| | | | | | |
| Additional | | | | | |
| Additional numbers at | | | | | |
| 5. Name and address to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved: 1 | | | | |
| Name: Wilsa N. Martin | 7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00 | | | | |
| Internal Address: Suite 3100, Promenade II | Authorized to be charged by credit card | | | | |
| morrial / (adi coo. <u>sano croo, rromanaso n</u> | Authorized to be charged by credit card Authorized to be charged to deposit account | | | | |
| Street Address: 4000 Beachines Street NE | Enclosed | | | | |
| Street Address: 1230 Peachtree Street, NE | None required (government interest not affecting title) | | | | |
| | 8. Payment Information | | | | |
| City: Atlanta | a. Credit Card Last 4 Numbers 1761 | | | | |
| State: Georgia Zip:30309 | Expiration Date 09/09 | | | | |
| Phone Number: 404-815-3648 | b. Deposit Account Number | | | | |
| Fax Number: 404-685-6948 | | | | | |
| Email Address: wmartin@sgrlaw.com | Authorized User Name | | | | |
| 9. Signature: | September 24, 2007 | | | | |
| Signature | Date | | | | |
| Robert G. Weilacher | Total number of pages including cover | | | | |
| Name of Person Signing | sheet, attachments, and documents: | | | | |

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

Declaration of Assignment

Übertragungserklärung

Degussa GmbH Bennigsenplatz 1 40474 Düsseldorf

(hereinafter referred to as "assignor") herewith assigns all rights related to the invention

(nachfolgend "Abtretender") überträgt hiermit alle Rechte an der Erfindung

REEL: 019872 FRAME: 0326

Our ref.: 199810098 (ehemals 980170) U. S. Patent Serial No. 6,348,620

"Process for enantioselective hydrogenation "

Inventors: : Prof. Paul Knochel, Dr. Juan Jose Almena Perea, Prof. Karlheinz Drauz, Dr. Ingo

Klement

accordingly to the Agreement dated *17./31.05.200* to 2

gemäß Vertrag vom 17./31.05.2003 auf

Umicore AG & Co. KG **Rodenbacher Chaussee 4** 63457 Hanau

| (hereinafter referred to as "assignee"). | (nachfolgend "Annehmender"). |
|--|---|
| Signature on behalf of the assignee | Unterzeichnung für den Annehmenden |
| Place/Date: | Ort/Datum: HU-Wolfgang, 13.0707 R. Lannam U. A. A. |
| | a. Lemman U. A. Hay |
| (Signature) | (Unterschrift) |
| | ppa. Dr. Reinhard Herrmann Senior IP Manager Senior IP Manager Senior IP Manager |
| (Name of signing person(s)) | (Name(n) des/der Unterzeichnenden) |
| (Position) | (Position) |
| (1 dollar) | (i osition) |
| Signature on behalf of the assignor | Unterzeichnung für den Abtretenden |
| Place/Date: | Ort/Datum: 17. Juli 2007 |
| | War Stef Pitras |
| (Signature) | (Unterschrift) |
| | ppa. Dr. Wolfgang Weber i.V. Dr. Stefan Retzow |
| (Name of signing person(s)) | (Name(n) des/der Unterzeichnenden) |
| | Prokurist Handlungsbevollmächtigter |
| (Position) | (Position) PATENT |

No. 75/2007 K of the Notary's document register

Notarial Certification

On the basis of the following certified extracts of the Commercial Register of

- the Local Court of Marl referring to HRB 2050, dated January 19th, 2007 and
- the Local court of Frankfurt am Main referring to HRB 47234, dated January 22nd, 2007 both with reference to the former Degussa-Hüls AG, Frankfurt am Main and
- the Local court of Frankfurt am Main, referring to HRB 8239, dated January 22nd, 2007 with reference to the previous Degussa AG, domiciled in Frankfurt am Main and

due to my inspection undertaken on January 18th, 2007 in the Electronic Commercial Register of

- the Local Court of Düsseldorf referring to HRB 39635 with reference to the former Degussa AG, domiciled in Düsseldorf and
- the Local court of Frankfurt am Main, referring to HRB 55436 with reference to the Degussa GmbH
- all extracts are at my disposal I herewith certify that:
- 1. The total assets of the previous Degussa AG, registered at the Commercial Register at the Local court of Frankfurt am Main under HRB 8239 were transferred by way of merger to Degussa-Hüls AG registered in the Commercial Register of the Local Court of Marl under HRB 2050. This Company had its registered seat in Marl. The merger took place on the day of its registration in the Commercial Register on February 1st, 1999 and became effective on the same date. Degussa-Hüls AG was the legal successor of Degussa AG since this date.
- Degussa-Hüls AG transferred its seat from Marl to Frankfurt am Main and the company was registered in the Commercial Register of the Local Court of Frankfurt am Main under HRB 47234 on the June 8th, 1999.
- 3. By way of merger the total assets of Degussa-Hüls AG were transferred to Degussa AG with domicile in Düsseldorf, registered under HRB 39635 in the Commercial Register of the Local Court of Düsseldorf. This merger was registered on February 9th, 2001. Since that time Degussa AG with its seat in Düsseldorf was the legal successor of Degussa-Hüls AG, Frankfurt am Main.
- 4. Degussa AG has in the meantime converted with change of form to Degussa GmbH, which was registered in the Commercial Register of Degussa AG on January 2nd, 2007. Degussa GmbH is now registered at the Local Court Düsseldorf under HRB 55436. The nominal capital of Degussa GmbH is € 205.623.590,00.

Hanau, January 25th, 2007,

Großkopf, attorney as officially appointed representative of the notary Klemm

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| STATEMENT UNDER 37 CFR 3.73(b) | | | | | | |
|---|---|--|--|--|--|--|
| Applicant/Patent Owner: Degussa-Huls Ag | | | | | | |
| Application No./Patent No.: 6,348,620 B1 Filed/ | Issue Date: February 19, 2002 | | | | | |
| Entitled: METHOD FOR HOMOGENEOUS ENANTIOSELECTIV FERROCENYL BIS-PHOSPHINE COMPLEXES | E HYDROGENATION USING CATALYTIC | | | | | |
| Degussa AG , a Corporation | 1 | | | | | |
| (Name of Assignee) (Type of Assignee | e, e.g., corporation, partnership, university, government agency, etc.) | | | | | |
| states that it is: | | | | | | |
| 1. | | | | | | |
| 2. an assignee of less than the entire right, title, and in | terest | | | | | |
| The extent (by percentage) of its ownership interest in the patent application/patent identified above by virtue of either | | | | | | |
| A. An assignment from the inventor(s) of the patent applicatio recorded in the United States Patent and Trademark Office thereof is attached. | n/patent identified above. The assignment was at Reel, Frame, or for which a copy | | | | | |
| OR | | | | | | |
| B. A chain of title from the inventor(s), of the patent application shown below: | n/patent identified above, to the current assignee as | | | | | |
| The document was recorded in the United States Pate | | | | | | |
| Reel <u>010221</u> , Frame <u>0481</u> , or for which a copy thereof is attached. | | | | | | |
| 2. From: Degussa-Huls AG To: Degus | ssa AG | | | | | |
| The document was recorded in the United States Pate | | | | | | |
| Reel <u>011855</u> , Frame <u>0608</u> , or for which a copy thereof | f is attached. | | | | | |
| 3. From: Degussa Huls AG To: Degus | ssa AG | | | | | |
| The document was recorded in the United States Pate | | | | | | |
| Reel <u>012322</u> , Frame <u>0909</u> , or for which a copy thereof | f is attached. | | | | | |
| ☑ Additional documents in the chain of title are listed on | a supplemental sheet. | | | | | |
| ☑ Copies of assignments or other documents in the chain of title are attached. [NOTE: A separate copy (i.e., a true copy of the original document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08] | | | | | | |
| The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee. | | | | | | |
| M July September 24, 2007 | | | | | | |
| Signature Date | | | | | | |
| Rober/G. Weilacher 404-815-3593 | | | | | | |
| Printed or Typed Name | Telephone Number | | | | | |
| Agent - Reg no. 20,531 | | | | | | |

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. 22313-1450.

SUPPLEMENTAL SHEET STATEMENT UNDER 37 CFR 3.73(B)

B. CONT'D

A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

4. From: <u>Degussa AG – 50%</u> To: <u>DMC² Degussa Metals Catalysts Cerdec AG</u>
The document was recorded in the United States Patent and Trademark Office at
Reel <u>011997</u>, Frame <u>0997</u>, or for which a copy thereof is attached.

5. From: <u>DMC² Degussa Metals Catalysts Cerdec AG(now known as OMG AG & Co. KG To: Degussa AG</u>

The document was recorded in the United States Patent and Trademark Office at Reel <u>012875</u>, Frame <u>0493</u>, or for which a copy thereof is attached.

LIT/1008300

PATENT

| BOX ASSIGNMENTS | 09-13-19 | 199 | | DO NOT USE F | OR TRADEMARKS |
|---|---|--|-------------------------------|--|---|
| TO THE ASSISTANT COMMISSIO | | | | | |
| SIR: PLEASE RECORD THE ATTA | 271111144 | 23 | THEREO | F | |
| 1. NAME OF CONVEYING PARTY | (IES) (ASSIGNORS(S)): | 2. Juan Jose 4. Ingo KLEM 6. 8. | ALMENA F IENT | PEREA 7 | Jell Junya. |
| 2. PARTY(IES) (ASSIGNEE(S)) RE | • • | -D: [] 120 E | 2,10 | | I MM. |
| NAME: Degussa-Huls AG | CEIVING INTEREST. | | | The state of the s | |
| | n, Postfach 1345, DE-63403 Ha | | NY | | |
| ADDITIONAL NAME(S) & ADDRES | | ⊠NO | | | |
| NATURE OF CONVEYANCE (I (Submit herewith only one docudocument) | | copies of sam | e Assignm | ent signed by differe | nt inventors is one |
| | WHOLE PART INTER | REST | | | 9; 2) July 12, 1999; |
| CHANGE OF NAME | ACCURATE TRANSLATION | | 3 & 4) Ju | ly 9, 1999 | |
| SECURITY | MERGER OTHER: | • | | | |
| EXECUTION DATE(S) ON THE DI ASSIGNMENT DIFFER SEE ATTY | <u>(!) 1) July 15, 1999; 2) July 12</u> | , 1999; 3 & 4) | July 9, 199 | 9 | AND |
| 4.5 APPL. NO.(S) OR PAT NO.(S) | | | | | |
| A PAT. APP. NO.(S) M# series code/serial no | INVENTOR. | B. PATENT | N2(6) 11 | | i = INVENTOR3. If not in item 4: |
| 09/335,893 260591 | | | | | |
| Name & Address of Party to W Concerning Document Should | | APPLNS | R INVOLV S <u>1</u> + PATS | = TOTAL | 1 |
| Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 | | | OF FEE E | ENCLOSED: (Code 5 10 = \$40 | 581) |
| 5.5ATTY DKT: | · · · · · · · · · · · · · · · · · · · | 8. IF ABOVE | FEE IS MI | SSING OR INADEQU | ATE CHARGE |
| | | | • | DEPOSIT ACCOUNT | |
| PMS 260591 | 980170 AM CLIENT REF. | dup. sheet not | | 21123 CLIENT NO. | 260591 MATTER NO. |
| MATTER NO. | CLIENT KEP. | uup. siioot iioi | Toquilda | CLILIAI NO. | I WATTENIO. |
| 9. STATEMENT AND SIGNATURE. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. 10. Total number of pages including this | | | | | |
| | | | | ges <u>including</u> this nts and document | 3 |
| ∠ / /∤ Signature | No | (do not file d | | | |
| Attorney: Ann S. Hobbs | | _ | | | |
| Reg. No. 36830 | | _ | otember 9, | | Andrew 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Atty/Sec: ASH/blg | TEL: (202) 861-3063 | | X: (202) 82 | | |
| /10/1999 SARAYA 00000030 09335893 | FILE WITH PTO RETU | RN RECEIPT (| PAT-103A | a) | |
| FC:581 46 | .00 OP | | | | |

PATENT PAT-114X 1/99
REEL: 010221 FRAME: 0481

Please return signed/recorded to:

Pillsbury Madison & Sutro LLP Intellectual Property Group Ninth Floor, East Tower 1100 New York Avenue, N.W. Washington, D.C. 20005-3918 For Inventions made outside USA executed with or after application Atty. Dkt.

PM260591

M#

980170AM Client Ref.

NONPROVISIONAL

NONPROVISIONAL ASSIGNMENT OF NONPROVISIONAL APPLICATION

In consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration paid to each of the undersigned, to wit:

USA Patent Appln.

Sole or Joint

| INSERI | (1) Paul KNOCHEL | (2) Juan Jos | SE ALMENA PEREA | | | | |
|--|---|--|---|--|--|--|--|
| NAME(S) OF | (3) Karlheinz DRAUZ | (4) Ingo KLEMENT | | | | | |
| INVENTOR(S) | (5) | x box if | continued on page 2 | | | | |
| the receipt and s and transfer(s) u | sufficiency of which are hereby acknowledged by th anto: | e undersigned who at the request | of, hereby sell(s), assign(s) | | | | |
| INSERT | Degussa-Huls AG | | | | | | |
| NAME(S) OF | Patente und Marken | | | | | | |
| ASSIGNEE(S) | Postfach 1345 | | | | | | |
| & ADDRESS(ES) | DE-63403 Hanau | | | | | | |
| | Germany | | | | | | |
| | d "ASSIGNEE") the entire right, title and interest for the United States continuations, substitutes, and reissues thereof; and all resulting paten | | nvention and all applications including | | | | |
| TITLE OF INVENTION | METHOD FOR ENANTIOSELECTIVE HYDR | OGENATION | | | | | |
| <u>NOTE</u> → → (Complete | 1 / | | | | | | |
| line A, B and/or (| C) (C) M in U.S. Appln. No. 09/ | | | | | | |
| hereinafter act on bef | AND the undersigned hereby authorize(s) and request(s) the Unite is interest as ASSIGNEE, its successors, assigns and legals represent naif of said ASSIGNEE; AND the undersigned hereby agree(s) to testify and execute any page to ASSIGNEE'S full protection and title in and to the invention here the undersigned hereby authorize(s) Pillsbury Madison & Sutro LL document. | utives; the undersigned agree(s) that the attom pers for ASSIGNEE, its successors, assigns an y transferred. | ey of record in said application shall nd legal representatives, deemed | | | | |
| 1): | Paul Knochel | DATE SIGNED WITH | ESSES 1) where | | | | |
| Name: Pau 2) | ul KNOCHEL | <u> </u> | rank 1) "bner | | | | |
| Name: Jua 3) | an Jose ALMENA PEREA | | | | | | |
| | rlheinz DRAUZ | | | | | | |
| | o KLEMENT | | | | | | |
| Name: | | | | | | | |

PAT-114 11/97

PATENT REEL: 010221 FRAME: 0482

Please return signed/recorded to:

Pillsbury Madison & Sutro LLP Intellectual Property Group Ninth Floor, East Tower 1100 New York Avenue, N.W. Washington, D.C. 20005-3918

For Inventions made outside USA executed with or after application Atty. Dkt.

PM260591

980170AM

Client Ref.

| NO | NPROVISIONAL | |
|----|--------------|--|
| | | |

ASSIGNMENT

USA Patent Appin.

Sole or Joint

NONPROVISIONAL

| OF NONPROVISIONAL APPLICATION | | | | | | | | |
|---|--|---|-------------|-----------|-------------------|-------------------|-------|---|
| In consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration paid to each of the undersigned, to wit: | | | | | | | | |
| INSERT | | (1) Paul KNOCHEL (2) Juan Jose ALMENA PEREA | | | | | | |
| NAME(S) OF | = | (3) Karl | heinz DRA | UZ | | | (4) | Ingo KLEMENT |
| INVENTOR(| S) | (5) | | | | | | x box if continued on page 2 |
| the receipt a | | | which are h | nereby ac | knowledged by the | undersigned who a | at th | e request of, hereby sell(s), assign(s) |
| INSERT | | Deguss | a-Huls AG | | | | | |
| NAME(S) OF | = | | und Marke | en | | | | |
| ASSIGNEE(| S) | Postfac | h 1345 | | | | | |
| & ADDRESS | S(ES) | DE-634 | 03 Hanau | | | | | |
| | | Germar | ıv | | | | | |
| | I METAULI FOR ENANTIONE FUTUROGENATION | | | | | | | |
| for which the undersigned executed an application for Letters Patents of the United States of America: NOTE → → (A) □ even date herewith (Complete (B) □ on | | | | | | | | |
| line A, B and | d/or C) | | in U.S. Ap | pin. No. | 09/ | file | ed | June 18, 1999 |
| AND the undersigned hereby authorize(s) and request(s) the United States Commissioner of Patents and Trademarks to issue said Letters Patent to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legals representatives; the undersigned agree(s) that the attorney of record in said application shall hereinafter act on behalf of said ASSIGNEE; AND the undersigned hereby agree(s) to testify and execute any papers for ASSIGNEE, its successors, assigns and legal representatives, deemed essential by ASSIGNEE to ASSIGNEE's full protection and title in and to the invention hereby transferred. NOTE The undersigned hereby authorize(s) Pillsbury Madison & Sutro LLP of the above address to insert hereon any further identification necessary or desirable for recordation of this document. | | | | | | | | |
| 1): | <u>INVENTORS</u> <u>DATE SIGNED</u> <u>WITNESSES</u> | | | | | | | |
| Name: | Paul K | NOCHEL | | | | | | |
| 2) | | | | | | | | |
| Name: | Juan | ose ALM | IENA PERE | EA | | 7/12/199 | 9 | ANHA Lang |
| Name: | Karlhe | inz DRAI | JZ ^ | | | <u> </u> | | / |
| 4) Name: | عا | بالبعز | uy 1 | gran | ~~ | 7/9/199 | 19 | Come samely |

PAT-114 11/97

PATENT REEL: 010221 FRAME: 0483

1999

RECORDED: 09/09/1999

Ipgo KLEMENT

Name:

5) Name: Name:

6-6-07

Docket :033766V034

06-12-2001



101745659

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copies thereof.

1. Name(s) of conveying party(ies):

Degussa-Hüls Aktiengesellschaft

2. Name(s) and Address(es) of receiving party(ies):

Degussa AG Benningsenplatz 1, DE-40474 Düsseldorf, Germany

3. Nature of conveyance:

Merger

Execution Date:

2/9/01

4A. Patent Application No.(s): See Schedule A Attached hereto

Application execution date:

4B. Patent No.(s):

5. Name and Address of Party to whom correspondence regarding this document should be mailed:

Smith, Gambrell & Russell, LLP 1850 M Street N.W. (Suite 800) Washington, DC 20036 202 659-2811

6. Total number of applications and patents involved:

7. Total fee: $110 \times $40 = $4,400$

(Enclosed. Please charge any deficiency or refund any excess to counsel's deposit account.)

8. Deposit account no.: 02-4300

NOT USE THIS SPACE

9. <u>Statement and Signature:</u> To the best of my knowledge and belief, the foregoing information is true and correct, and any attached copy is a true copy of the original document.

Name of Person Signing: Robert G. Weilacher

Signature:

Data

m 6 200

No. of Pages 7

06/11/2001 TDIAZ1 00000068 4358321

01 FC:581

4400.00 DP

PATENT REEL: 011855 FRAME: 0608

PATENT

DEC 0 6 200

Docket : 032301W014

12-12-2001



101913737

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copies thereof.

10-6-01

1. Name(s) of conveying party(ies):

Degussa-Hüls Aktiengesellschaft, Frankfurt am Main, Germany

2. Name(s) and Address(es) of receiving party(ies):

Dequssa AG Bennigsenplatz 1, DE-40474 Düsseldorf, Germany

3. Nature of conveyance:

Merger

Execution Date:

2/9/01

4A. Patent Application No.(s): See Schedule A Attached hereto

Application execution date:

4B. Patent No.(s):

5. Name and Address of Party to whom correspondence regarding this document should be mailed:

Smith, Gambrell & Russell, LLP 1850 M Street N.W. (Suite 800) Washington, DC 20036 202 659-2811

6. Total number of applications and patents involved: 629

7: Total fee: 25,160

(Enclosed. Please charge any deficiency or refund any excess to counsel's deposit account.)

8. Deposit account no.: 02-4300

NOT USE THIS SPACE

9. Statement and Signature: To the best of my knowledge and belief, the foregoing information is true and correct, and any attached copy is a true copy of the original document.

Name of Person Signing: Robert G. Weilacher

Signature:

Date: 12/6/01.

12/11/2001 JJALLAH2 00000014 09792064

01 FC:581

25160.00 OP

PATENT **REEL: 012322 FRAME: 0909**

PATENT

| REC | ORDATION COVIDENTS | | |
|---|--|---------------------------|--|
| To the Honorable Coi 101788556 marks: Please record the attached original documents or popids thereof. | | | |
| 1. | Name(s) of Conveying Party(ies):Degussa AG | | |
| 2. | Name(s) and Address(es) of Receiving Party(ies) 1. Degussa AG,Bennigsenplatz 1,DE-40474 Düsseldorf, GERMANY and 2. dmc² Degussa Metals Catalysts Cerdec AG Rodenbacher Chaussee 4 63457 Hanau-Wolfgang Federal Republic of Germany | | |
| 3. | Nature of Conveyance: Assignment | | |
| | Execution Date: 6/18/01 AND 6/18/01 | | |
| 4A. | Patent Application No.(s): 09/335,893 AND 09/335,894 | | |
| | Application Execution Date: | | |
| 4B. | Patent No.(s): | | |
| 5. | Name and Address of Party to Whom Correspondence Regarding This Document Should Be Mailed: Smith, Gambrell & Russell, LLP Beveridge, DeGrandi, Weilacher & Young, Intellectual Property Group Suite 800, 1850 M Street N.W., Washington, D.C. 20036 (202) 659-2811 | | |
| | Attorney Docket No.: 033766W034 | | |
| 6. | Total Number of Applications 2 and Patents involved: | | |
| 7. | Total Fee: \$80.00 | | |
| | (Enclosed. Please charge any deficiency or refund any excess to counsel's deposit account.) | | |
| 8. | Deposit Account No.: 02-4300 | 8 | |
| | DO NOT USE THIS SPACE | | |
| 9 . | Statement and Signature: To the best of my knowledge and belief, the forego information is true and correct, and any attached copy is a true copy of the original document. bert G. Weilacher, Registration No. 20531 Date | ELINELLER 00000137 093358 | |
| | Total Number of Pages (including cover sheet): 3 | 25/2001 FC:581 | |
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PATENT

REEL: 011997 FRAME: 0997

PATENT

ASSIGNMENT DEED

This assignment agreement is applicable to the U.S. Patent Application Numbers 09/335,894 and 09/335,893

The PATENT RIGHTS referred to in this agreement are:

x U.S. patent application Serial Nos. 09/335,894 and 09/335,893

The PATENT RIGHTS also include all divisions, reissues, continuations and extensions of the patents and patent applications identified above.

The PATENT RIGHTS assigned under this agreement are:

 $\underline{\mathbf{x}}$ U.S. patent rights only.

The ASSIGNOR referred to in this agreement is:

Degussa AG

Address BENNIGSENPLATZ 1, DE-40474 DÜSSELDORF, GERMANY

The ASSIGNEE referred to in this agreement is:

dmc² Degussa Metals Catalysts Cerdec AG Rodenbacher Chaussee 4 address 63457 Hanau-Wolfgang Federal Republic of Germany

The ASSIGNEE is:

A Corporation of Germany X

The ASSIGNOR, in consideration of good and valuable consideration, receipt of which is acknowledged, has assigned and does hereby assign the following to the ASSIGNEE; its successors and assigns:

an undivided 50% interest in and to the invention;

PATENT REEL: 011997 FRAME: 0998

an undivided 50% interest in and to the Patent Rights; the right to sue and recover for any past infringement; and

the right to claim priority under 35 USC 119, based on any earlier foreign applications for this invention.

As to all U.S. patent applications assigned under this agreement, the ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue all Letters Patent to the ASSIGNEE as the ASSIGNEE of the respective 50% interest conveyed above, for the sole use and enjoyment of said ASSIGNEE, its successors and assigns.

Further, the ASSIGNOR agrees to communicate to said ASSIGNEE, or its representatives, any facts know to the ASSIGNOR respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE in respect of the 50% interest, make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention.

| DEGUSSA AG June 18th, 2001 | By Mor |
|----------------------------|--------------------|
| (Date) | Dr. Wolfgang Weber |
| | Title Procurist |
| June 18th, 2001 (Date) | Dr. Volker Bugdahl |
| | Title |

2

RECORDED: 07/19/2001

PATENT REEL: 011997 FRAME: 0999

05-14-2002 MAY 0 8 2002 RECORDATION COVER BHEEP LATTENTION: BOX 102089265 To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copies thereof. Name(s) of Conveying Party(ies):dmc2 Degussa Metals Catalysts Cerdec AG, now known as OMG AG & CO. KG Name(s) and Address(es) of Receiving Party(les): Degussa AG, Bennigsenplatz 1, DE-40474 58.02 Düsseldorf, GERMANY **ASSIGNMENT** Nature of Conveyance: **Execution Date:** January 15, 2002; January 15, 2002 09/335,893 Patent Application No.(s): Application Execution Date: Patent No.(s): 6,284,925 Name and Address of Party to Whom Correspondence Regarding This Document Should Be Mailed: Smith, Gambrell & Russell, LLP Suite 800, 1850 M Street N.W., Washington, D.C. 20036 (202) 659-2811 033766W034 Attorney Docket No.: **Total Number of Applications** 2 and Patents involved: \$80.00

7. **Total Fee:**

1.

2.

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4A.

4B. 5.

6.

(Enclosed. Please charge any deficiency or refund any excess to counsel's deposit account.)

Deposit Account No.: 02-4300 8.

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Robert G. Weilacher Registration No. 20531

Date May 8, 2002

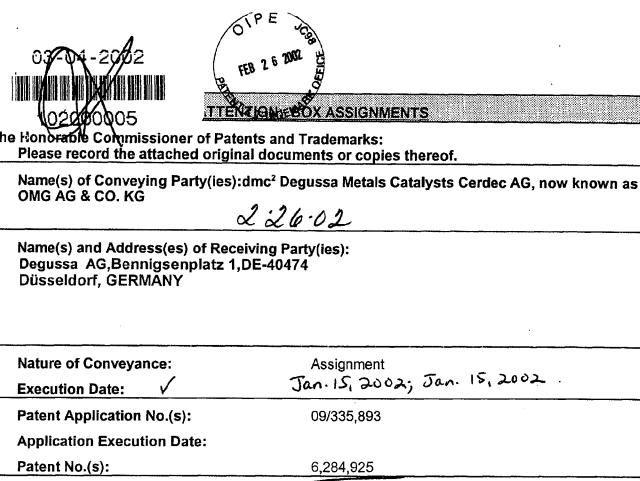
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PATENT

REEL: 012875 FRAME: 0493

PATENT



Assignment Jan. 15, 2002; Jan. 15, 2002

09/335,893

4B.

1.

2.

3.

4A.

6,284,925

5. Name and Address of Party to Whom Correspondence Regarding This Document Should Be Mailed:

Smith, Gambrell & Russell, LLP Suite 800, 1850 M Street N.W., Washington, D.C. 20036 (202) 659-2811

Attorney Docket No.:

033766W034

6. **Total Number of Applications** and Patents involved:

2

7. Total Fee: \$80.00

(Enclosed. Please charge any deficiency or refund any excess to counsel's deposit account.)

8. Deposit Account No.: 02-4300

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9. Statement and Signature: To the best of my knowledge and belief, the foregoing information is true and correct, and any attached copy is a true copy of the original, document.

Robert G. Weilacher, Registration No. 20531

2/26/02

Total Number of Pages (including cover sheet):

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PATENT

REEL: 012875 FRAME: 0494

PATENT

ASSIGNMENT

WHEREAS, DEGUSSA AG, a joint stock company of the Federal Republic of Germany having a place of business at Bennigsenplatz I, DE-40474 Düsseldorf, Germany and dmc² Degussa Metals Catalysts Cerdec AG a corporation of Germany, having a place of business at Rodenbacher Chaussee 4, D-63457 Hanau-Wolfgang, Federal Republic of Germany are each the owner a 50% right, title and interest in and to the United States Letters Patent 6,284,925 and Patent Application 09/335,893 by assignment recorded July 19, 2001 at reel 011997, frame 0997;

WHEREAS, DEGUSSA AG, a joint stock company of the Federal Republic of Germany having a place of business at Bennigsenplatz 1,DE-40474 Düsseldorf, Germany, (hereafter referred to as ASSIGNEE) is desirous of acquiring the entire right, title and interest in and to said United States Letters Patent 6,284,925 and Patent Application 09/335,893;

NOW, THEREFORE, in consideration of the sum of (\$1.00) Dollar paid to dmc² Degussa Metals Catalysts Cerdec AG, now known as OMG AG & CO. KG, (hereafter ASSIGNOR) and other good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, the said ASSIGNOR hereby sells, assigns and transfers unto the said ASSIGNEE, it successors and assigns, its 50% right, title and interest in and to said United States Letters Patent 6,284,925 and Patent Application 09/335,893 including the right to sue for past infringement, and in and to any and all re-issues and extensions thereof.

Further, ASSIGNOR agrees that it will communicate to said ASSIGNEE or its representatives, any facts known to it respecting said Letters Patent and Patent Application, and testify in any legal proceedings, sign all lawful papers, execute all re-issue applications, make all rightful oaths and generally do everything necessary or desirable to

PATENT REEL: 012875 FRAME: 0495

aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said Letters Patent and Patent Application in the United States, its territories and possessions.

dmc² Degussa Metals Catalysts Cerdec AG, now known as OMG AG & CO. KG

Jan. 15th, 2002

Date

By Bernd Engler

Title Procurist

Jan. 15th, 2002

Date

By Reinhard Herrmann

Title______

RECORDED: 02/26/2002

RECORDED: 09/25/2007

PATENT REEL: 012875 FRAME: 0496

PATENT