

04/15/2011

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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)**

Shaik Mohammad Zakeeruddin (January 31, 2007)  
Michael Graetzel (January 31, 2007)  
Cédric Klein (February 8, 2007)  
Peng Wang (February 12, 2007)

U.S. PTO  
13/066114  
04/07/2011

Additional name(s) of conveying party(ies) attached?  Yes  No

**3. Nature of conveyance/Execution Date(s):**

Execution Date(s) See above

- Assignment  Merger
- Security Agreement  Change of Name
- Joint Research Agreement
- Government Interest Assignment
- Executive Order 9424, Confirmatory License
- Other Swiss Corporation

**2. Name and address of receiving party(ies)**

Name: Ecole Polytechnique Fédérale de Lausanne (EPFL)

Internal Address: SRI-CM2, Station 10

Street Address: \_\_\_\_\_

City: CH-1015 Lausanne

State: \_\_\_\_\_

Country: SWITZERLAND

Zip: \_\_\_\_\_

Additional name(s) & address(es) attached?  Yes  No

**4. Application or patent number(s):**

This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached?  Yes  No

**5. Name and address to whom correspondence concerning document should be mailed:**

Name: Clifford W. Browning of Krieg DeVault LLP

Internal Address: \_\_\_\_\_

Street Address: One Indiana Square, Suite 2800

City: Indianapolis

State: IN Zip 46204

Phone Number: (317) 238-6203

Fax Number: (317) 636-1507

Email Address: ipdocketing@kdlegal.com

**6. Total number of applications and patents involved: 1**

**7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00**

- Authorized to be charged to deposit account
- Enclosed
- None required (government interest not affecting title)

**8. Payment Information**

Deposit Account Number \_\_\_\_\_

Authorized User Name \_\_\_\_\_

**9. Signature:**

Clifford W. Browning  
Signature

April 7, 2011  
Date

Clifford W. Browning  
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents

5

**ASSIGNMENT (PATENT)**

WHEREAS, Shaik Mohammad ZAKEERUDDIN, Avenue Longemalle 12, CH-1020 Renens, Switzerland hereinafter referred to as Assignor, has made a new and useful invention in

2, 2-BIPYRIDINE LIGAND, SENSITIZING DYE AND DYE SENSITIZED SOLAR CELL

which is found in International Patent Application No PCT/CH 2005/000452, filed on July 29, 2005, and for which Assignor will make application for Letters Patent of the United States; and

WHEREAS, Ecole Polytechnique Fédérale de Lausanne (EPFL), with address at SRI-CM2, Station 10, CH-1015 Lausanne, Switzerland, hereinafter referred to as Assignee, desires to acquire 100% of the right, title, and interest in, to and under said invention disclosed, described and claimed or intended so to be in said application, and in, to and under said application, and in, to and under any and all Letters Patent, United States and foreign, which may be obtained thereof and thereon;

NOW, THEREFORE, to all and whom it may concern, be it known that for and in consideration of the sum of One Dollar (\$1.00) and other good, valuable and sufficient considerations to Assignor in hand paid, the receipt of which is hereby acknowledged, Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer unto Assignee, 100% of the right, title, and interest in, to and under said invention disclosed, described and claimed or intended so to be in said application, and any and all other applications thereon and arising therefrom, including any and all divisions and continuations thereof, and any and all divisions and continuations thereof, and any and all patents to be issued and obtained therefor and thereon, United States and foreign, including all reissues and extensions thereof.

Assignor hereby authorizes and requests the firm of Krieg DeVault LLP, One Indiana Square, Suite 2800, Indianapolis, IN 46204-2079, to insert here in parentheses (Serial No 11/658,780, Filed March 28 2007) the date and serial number of said application for Letters Patent of the United States when officially known, and Assignor hereby authorizes and requests the Honorable Commissioner of Patents to issue said Letters Patent to Assignee, its assigns and legal representatives.

Assignor agrees to sign and execute any and all other papers necessary and desirable for the procurement of Letters Patent on said invention in this and all foreign countries for the use of Assignee

WITNESS Assignor's hands this 31 day of January, 2007

Shaik Mohammad ZAKEERUDDIN

S.M. Zakeeruddin

## ASSIGNMENT (PATENT)

WHEREAS, Michaël GRAETZEL, Chemin de Marquisat 7a, CH-1025 St-Sulpice, Switzerland, hereinafter referred to as Assignor, has made a new and useful invention in

### 2, 2-BIPYRIDINE LIGAND, SENSITIZING DYE AND DYE SENSITIZED SOLAR CELL

which is found in International Patent Application No. PCT/CH 2005/000452, filed on July 29, 2005, and for which Assignor will make application for Letters Patent of the United States; and

WHEREAS, Ecole Polytechnique Fédérale de Lausanne (EPFL), with address at SRI-CM2, Station 10, CH-1015 Lausanne, Switzerland, hereinafter referred to as Assignee, desires to acquire 100% of the right, title, and interest in, to and under said invention disclosed, described and claimed or intended so to be in said application, and in, to and under said application, and in, to and under any and all Letters Patent, United States and foreign, which may be obtained thereof and thereon;

NOW, THEREFORE, to all and whom it may concern, be it known that for and in consideration of the sum of One Dollar (\$1.00) and other good, valuable and sufficient considerations to Assignor in hand paid, the receipt of which is hereby acknowledged, Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer unto Assignee, 100% of the right, title, and interest in, to and under said invention disclosed, described and claimed or intended so to be in said application, and any and all other applications thereon and arising therefrom, including any and all divisions and continuations thereof, and any and all divisions and continuations thereof, and any and all patents to be issued and obtained therefor and thereon, United States and foreign, including all reissues and extensions thereof.

Assignor hereby authorizes and requests the firm of Krieg DeVault LLP, One Indiana Square, Suite 2800, Indianapolis, IN 46204-2079, to insert here in parentheses (Serial No. 11/658,780, Filed March 28 2007) the date and serial number of said application for Letters Patent of the United States when officially known, and Assignor hereby authorizes and requests the Honorable Commissioner of Patents to issue said Letters Patent to Assignee, its assigns and legal representatives.

Assignor agrees to sign and execute any and all other papers necessary and desirable for the procurement of Letters Patent on said invention in this and all foreign countries for the use of Assignee.

WITNESS Assignor's hands this 31 day of January, 2007.

Michaël GRAETZEL



**ASSIGNMENT (PATENT)**

WHEREAS, Peng WANG, Chemin de Montelly 70, CH-1007 Lausanne, Switzerland, hereinafter referred to as Assignor, has made a new and useful invention in

**2, 2-BIPYRIDINE LIGAND, SENSITIZING DYE AND DYE SENSITIZED SOLAR CELL**

which is found in International Patent Application No PCT/CH 2005/000452, filed on July 29, 2005, and for which Assignor will make application for Letters Patent of the United States; and

WHEREAS, Ecole Polytechnique Fédérale de Lausanne (EPFL), with address at SRI-CM2, Station 10, CH-1015 Lausanne, Switzerland, hereinafter referred to as Assignee, desires to acquire 100% of the right, title, and interest in, to and under said invention disclosed, described and claimed or intended so to be in said application, and in, to and under said application, and in, to and under any and all Letters Patent, United States and foreign, which may be obtained thereof and thereon;

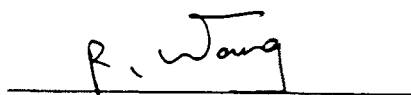
NOW, THEREFORE, to all and whom it may concern, be it known that for and in consideration of the sum of One Dollar (\$1.00) and other good, valuable and sufficient considerations to Assignor in hand paid, the receipt of which is hereby acknowledged, Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer unto Assignee, 100% of the right, title, and interest in, to and under said invention disclosed, described and claimed or intended so to be in said application, and any and all other applications thereon and arising therefrom, including any and all divisions and continuations thereof, and any and all divisions and continuations thereof, and any and all patents to be issued and obtained therefor and thereon, United States and foreign, including all reissues and extensions thereof.

Assignor hereby authorizes and requests the firm of Krieg DeVault LLP, One Indiana Square, Suite 2800, Indianapolis, IN 46204-2079, to insert here in parentheses (Serial No. 11/658,780, Filed March 28 20 07) the date and serial number of said application for Letters Patent of the United States when officially known, and Assignor hereby authorizes and requests the Honorable Commissioner of Patents to issue said Letters Patent to Assignee, its assigns and legal representatives.

Assignor agrees to sign and execute any and all other papers necessary and desirable for the procurement of Letters Patent on said invention in this and all foreign countries for the use of Assignee.

WITNESS Assignor's hands this 12th day of February, 2007.

Peng WANG



**ASSIGNMENT (PATENT)**

WHEREAS, Cédric KLEIN, Avenue du Grey 45, CH-1018 Lausanne, Switzerland, hereinafter referred to as Assignor, has made a new and useful invention in

2, 2-BIPYRIDINE LIGAND, SENSITIZING DYE AND DYE SENSITIZED SOLAR CELL

which is found in International Patent Application No. PCT/CH 2005/000452, filed on July 29, 2005, and for which Assignor will make application for Letters Patent of the United States; and

WHEREAS, Ecole Polytechnique Fédérale de Lausanne (EPFL), with address at SRI-CM2, Station 10, CH-1015 Lausanne, Switzerland, hereinafter referred to as Assignee, desires to acquire 100% of the right, title, and interest in, to and under said invention disclosed, described and claimed or intended so to be in said application, and in, to and under said application, and in, to and under any and all Letters Patent, United States and foreign, which may be obtained thereof and thereon;

NOW, THEREFORE, to all and whom it may concern, be it known that for and in consideration of the sum of One Dollar (\$1 00) and other good, valuable and sufficient considerations to Assignor in hand paid, the receipt of which is hereby acknowledged, Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer unto Assignee, 100% of the right, title, and interest in, to and under said invention disclosed, described and claimed or intended so to be in said application, and any and all other applications thereon and arising therefrom, including any and all divisions and continuations thereof, and any and all divisions and continuations thereof, and any and all patents to be issued and obtained therefor and thereon, United States and foreign, including all reissues and extensions thereof.

Assignor hereby authorizes and requests the firm of Krieg DeVault LLP, One Indiana Square, Suite 2800, Indianapolis, IN 46204-2079, to insert here in parentheses (Serial No. 11/658,780, Filed March 28 20 07) the date and serial number of said application for Letters Patent of the United States when officially known, and Assignor hereby authorizes and requests the Honorable Commissioner of Patents to issue said Letters Patent to Assignee, its assigns and legal representatives.

Assignor agrees to sign and execute any and all other papers necessary and desirable for the procurement of Letters Patent on said invention in this and all foreign countries for the use of Assignee.

WITNESS Assignor's hands this 8<sup>th</sup> day of February, 2007

Cédric KLEIN



A handwritten signature in black ink, appearing to be 'C Klein', written over a horizontal line.