## 503024740 10/20/2014

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3071340

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
GEORGE LIANG-TAI CHIU	12/26/2007
STEVEN ALAN CORDES	12/29/2007
JAMES PATRICK DOYLE	12/26/2007
MATTHEW J FARINELLI	10/14/2014
MINHUA LU	10/20/2014
HIROKI NAKANO	12/25/2007
RONALD NUNES	12/22/2007
JAMES VICHICONTI	12/26/2007

### **RECEIVING PARTY DATA**

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION
Street Address:	NEW ORCHARD ROAD
City:	ARMONK
State/Country:	NEW YORK
Postal Code:	10504

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	11742474

### **CORRESPONDENCE DATA**

**Fax Number:** (914)766-7520

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Email:** iplawyor@us.ibm.com

Correspondent Name: IBM CORPORATION, IP LAW DEPT.

Address Line 1: 294 ROUTE 100, P. O. BOX 100

Address Line 4: SOMERS, NEW YORK 10589-0100

ATTORNEY DOCKET NUMBER:	YOR920040059US1
NAME OF SUBMITTER:	DANIEL P. MORRIS
SIGNATURE:	/Daniel P. Morris/
DATE SIGNED:	10/20/2014

PATENT REEL: 033979 FRAME: 0055

503024740

# Total Attachments: 15 source=YOR920040059US1Assignment#page1.tif source=YOR920040059US1Assignment#page2.tif source=YOR920040059US1Assignment#page3.tif source=YOR920040059US1Assignment#page4.tif source=YOR920040059US1Assignment#page5.tif source=YOR920040059US1Assignment#page6.tif source=YOR920040059US1Assignment#page7.tif source=YOR920040059US1Assignment#page8.tif source=YOR920040059US1Assignment#page9.tif source=YOR920040059US1Assignment#page10.tif source=YOR920040059US1Assignment#page11.tif source=YOR920040059US1Assignment#page12.tif source=YOR920040059US1Assignment#page13.tif

source=YOR920040059US1Assignment#page14.tif source=YOR920040059US1Assignment#page15.tif

INVENTOR AND CITY

Whereas, we (1) George Liang-Tai Chiu County of Westchester and (2) Steven Alan Cordes County of Westchester and (3) James Patrick Doyle County of Bronx and (4) Matthew J. Farinelli County of Bronx and (5) Minhua Lu County of Westchester and (6) Hiroki Nakano and (7) Ronald Nunes County of Dutchess

and (8) James Vichiconti

County of Westchester

Docket No. YOR920040059

of Cross River, and State of New York, of Yorktown Heights, and State of New York. and State of New York, and State of New York, of Mohegan Lake, and State of New York, of Otsu, and Country of Japan, of Hopewell Junction, and State of New York, of Peekskill, and State of New York,

TITLE

have invented certain improvements in METHOD OF PRODUCING UV STABLE LIQUID CRYSTAL ALIGNMENT

METHOD OF PRODUCING UV STABLE LIQUID CHYSTAL ALIGNMENT filed as United States patent application serial number 11/742,474 on April 30, 2007; and Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor; Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention thereign directored for the United States and foreign countries, and in all foreign countries, and all rights of and invention therein disclosed for the United States and foreign countries, and in all foreign countries, and all rights of

priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Signed and sealed

(Geo Que Liang-Tai Chiy)	on	December 2	6,2007
(Steven Alan Cordes)	on	December	, 2007
(James Patrick Doyle)	on	December	, 2007
(Matthew J. Farineill)	ОÑ	December	, 2007
	on	December	, 2007
(Minhua Lu)	on	December	, 2007
(Hiroki Nakano) (Ronald Nunes)	on	December	, 2007
(James Vichiconti)	фn	December	, 2007
(DESIGNATION)			

**REEL: 033979 FRAME: 0057** 

INVENTOR AND CITY Whereas, we
(1) George Liang-Tai Chiu
County of Westchester
and (2) Steven Alan Cordes
County of Westchester
and (3) James Patrick Doyle
County of Bronx
and (4) Matthew J. Farinelli
County of Bronx
and (5) Minhua Lu
County of Westchester
and (6) Hiroki Nakano
Shiga
and (7) Ronald Nunes
County of Dutchess

Docket No. YOR920040059

of Cross River, and State of New York, of Yorktown Heights, and State of New York, of and State of New York, of and State of New York, of Mohegan Lake, and State of New York, of Otsu, and Country of Japan, of Hopewell Junction, and State of New York, of Peekskill, and State of New York, and State of New York, of Peekskill,

and (8) James Vichiconti County of Westchester have invented certain improvements in

TITLE

Signed and sealed

METHOD OF PRODUCING UV STABLE LIQUID CRYSTAL ALIGNMENT

filed as United States patent application serial number 11/742,474 on April 30, 2007; and Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor; Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and in all foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

(George Liang-Tai Chiu)	on	December	, 2007
Steven alan Coul	on	December 29	, 2007
(James Patrick Doyle)	on	December	, 2007
(Matthew J. Farinelli)	on	December	, 2007
(Minhua Lu)	on	December	, 2007
(Hiroki Nakano)	on	December	, 2007
(Ronald Nunes)	on	December	, 2007
(James Vichiconti)	on	December	, 2007

PATENT

**REEL: 033979 FRAME: 0058** 

Whereas, we INVENTOR

(1) George Liang-Tai Chiu County of Westchester and (2) Steven Alan Cordes County of Westchester

and (3) James Patrick Doyle County of Bronx

and (4) Matthew J. Farinelli County of Bronx and (5) Minhua Lu County of Westchester and (6) Hiroki Nakano Shiga and (7) Ronald Nunes

County of Dutchess and (8) James Vichiconti County of Westchester

have invented certain improvements in

Docket No. YOR920040059

of Cross River, and State of New York. of Yorktown Heights, and State of New York, and State of New York, and State of New York, of Mohegan Lake, and State of New York, of Otsu.

and Country of Japan, of Hopewell Junction, and State of New York,

of Peekskill.

and State of New York,

TITLE

AND CITY

METHOD OF PRODUCING UV STABLE LIQUID CRYSTAL ALIGNMENT

filed as United States patent application serial number 11/742,474 on April 30, 2007; and

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor; Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and in all foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns; and we hereby agree that iBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by iBM.

Signed and sealed

(George Liang-Tai Chlu)	on	December	, 2007
(Steven Alan Cordes)	on	December	. 2007
(James Patrick Doyle)	on	December 26	, 2007
(Matthew J. Farinelli)	on	December	, 2007
(Minhua Lu)	on	December	, 2007
(Hiroki Nakano)	on	December	, 2007
(Ronald Nunes)	on	December	, 2007
(James Vichiconti)	on	December	, 2007

PAGE

NICESHA PATEL

132669011

13/26/2007 20:40

INVENTOR AND CITY

Whereas, we (1) George Liang-Tai Chiu County of Westchester and (2) Steven Alan Cordes County of Westchester and (3) James Patrick Doyle County of Bronx and (4) Matthew J. Farinelli County of Bronx and (5) Minhua Lu County of Westchester and (6) Hiroki Nakano Shiga and (7) Ronald Nunes County of Dutchess and (8) James Vichiconti

Docket No. YOR920040059

of Cross River, and State of New York, of Yorktown Heights, and State of New York, and State of New York. of and State of New York. of Mohegan Lake, and State of New York, of Otsu. and Country of Japan, of Hopewell Junction, and State of New York

County of Westchester

have invented certain improvements in

METHOD OF PRODUCING UV STABLE LIQUID CRYSTAL ALIGNMENT
filled as United States patent application serial number 11/742,474 on April 30, 2007; and

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor; now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and in all foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM. Signed and sealed

(George Liang-Tai Chiu)	٥n	December	, 2007
(Steven Alan Cordes)	on	December	, 2007
(James Patrick Doyle)	on	December	, 2007
(Matthew J. Farinelli)	on	December	, 2007
(Minhua Lu)	on	December	, 2007
Dhiohi Irahun (Hiroki Nakano)	on	December 2년	<b>.</b> 2007
(Ronald Nunes)	on	December	, 2007
(James Vichiconti)	an	December	, 2007

9 % 682 'ON T単入IBM(KK)4Y LRD

**4.2割8: E2242.⇒7002** 

INVENTOR AND CITY

Whereas, we (1) George Liang-Tai Chiu County of Westchester and (2) Steven Alan Cordes County of Westchester and (3) James Patrick Doyle County of Bronx and (4) Matthew J. Farinelli County of Bronx and (5) Minhua Lu County of Westchester and (6) Hiroki Nakano Shiga and (7) Ronald Nunes County of Dutchess

and (8) James Vichiconti

have invented certain improvements in

County of Westchester

Docket No. YOR920040059

of Cross River. and State of New York, of Yorktown Heights, and State of New York, and State of New York, and State of New York, of Mohegan Lake, and State of New York. of Otsu, and Country of Japan. of Hopewell Junction. and State of New York, of Peekskill, and State of New York,

TITLE

METHOD OF PRODUCING UV STABLE LIQUID CRYSTAL ALIGNMENT

filed as United States patent application serial number 11/742,474 on April 30, 2007; and Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor; Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and in all foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue priority resulting from the filing of said United States application, and we request the Commissioner of Faterits to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

(George Liang-Tal Chiu)	or	) December	, 2007
(Steven Alan Cordes)	on	December	, 2007
(James Patrick Doyle)	on	D <b>oce</b> mber	, 2007
(Matthew J. Farinelli)	oη	December	, 2007
(Minhua Lu)	٥n	December	, 2007
(Hiroki Nakano)	on	December	, 2007
Konald Munes (Ronald Nunes)	<b>o</b> n	December	<b>&amp;2</b> , 2007
(James Vichiconti)	on	December	, 2007

INVENTOR AND CITY

Whereas, we (1) George Liang-Tai Chiu County of Westchester and (2) Steven Alan Cordes County of Westchester and (3) James Patrick Doyle County of Bronx and (4) Matthew J. Farinelli County of Bronx and (5) Minhua Lu County of Westchester and (6) Hiroki Nakano Shiga and (7) Ronald Nunes County of Dutchess

and (8) James Vichiconti

County of Westchester

Docket No. YOR920040059

of Cross River, and State of New York, of Yorktown Heights, and State of New York, and State of New York. and State of New York, of Mohegan Lake, and State of New York, of Otsu, and Country of Japan, of Hopewell Junction. and State of New York, of Peekskill. and State of New York,

TITLE

have invented certain improvements in METHOD OF PRODUCING UV STABLE LIQUID CRYSTAL ALIGNMENT

filed as United States patent application serial number 11/742,474 on April 30, 2007; and

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor. Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and in all foreign countries, and all rights of priority resulting from the filling of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Signed and sealed

(George Liang-Tai Chiu)	on	December	, 2007
(Steven Alan Cordes)	on	December	, 2007
(James Patrick Doyle)	on	December	, 2007
(Matthew J. Farinelli)	on	December	, 2007
(Minhua Lu)	on	December	, 2007
(Hiroki Nakano)	on	December	, 2007
(Ronald Nunes)	on	December	, 2007
(James Vichiconti)	on	December	26, 2007

P. 04/04

9149454556 TO 919144795304

DEC SE S001 I0:S0 EK 674642426

### IBM DOCKET NUMBER: YOR920040059US1

### ASSIGNMENT

Whereas, the undersigned Inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") in:

Title of the Invention:

# METHOD OF PRODUCING UV STABLE LIQUID CRYSTAL ALIGNMENT

and further identified by the IBM Docket Number provided above in the header of this Assignment, for which an application for a United States Patent was executed concurrently herewith or was filed having:

Serial Number: 11/742474 (insert series code and serial number here if/when available)

Whereas, International Business Machines Corporation, a corporation of New York having a place of business at Armonk, New York (herein referred to as "IBM"), desires to acquire, and each undersigned Inventor desires to grant to IBM, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned Inventor ("ASSIGNOR") hereby sells, assigns, and otherwise transfers to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned Inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to IBM, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by IBM, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned Inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

Each undersigned Inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned Inventor also hereby grants IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent application Serial Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

Page 1 of 9

	IBM DOCKET NUMBER: YOR920040059US1
Ex	secuted by Inventor 1 of 8
Signature: George Liang-Tai Chiu	Date:

Page 2 of 9

# IBM DOCKET NUMBER: YOR920040059US1 Executed by Inventor 2 of 8 \_\_\_\_\_\_ Date: \_\_\_\_\_\_

Page 3 of 9

Signature: \_\_\_

Steven Alan Cordes

	IBM DOCKET NUMBER: YOR920040059US1		
Executed by Inventor 3 of 8			
Signature:	Date;		

Page 4 of 9

# IBM DOCKET NUMBER: YOR920040059US1

Executed by Inventor 4 of 8

Signature: 4

Page 5 of 9

IBM DOCKET NUMBER: YOR920040059US1

Executed by Inventor 5 of 8

Minhua Lu

Page 6 of 9

***************************************	IBM DOCKET NUMBER: YÖR920040059USI	
Executed by Inventor 6 of 8		
Signature: Hiroki Nakana	Date:	

Page 7 of 9

	IBM DOCKET NUMBER: YOR920040059US1	
Executed by Inventor 7 of 8		
Signature:Ronald Numes	Date:	

Page 8 of 9

	IBM DOCKET NUMBER: YOR920040059US1
	Executed by Inventor 8 of 8
Signature:	Date:

Page 9 of 9

PATENT REEL: 033979 FRAME: 0071

**RECORDED: 10/20/2014**