

<b>PATENT ASSIGNMENT COVER SHEET</b>
--------------------------------------

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3805571

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
CAMBRIOS TECHNOLOGIES CORPORATION	03/16/2016

**RECEIVING PARTY DATA**

<b>Name:</b>	CHAMP GREAT INT'L CORPORATION
<b>Street Address:</b>	SUITE 1, COMMERCIAL HOUSE ONE
<b>City:</b>	EDEN ISLAND
<b>State/Country:</b>	SEYCHELLES

**PROPERTY NUMBERS Total: 50**

Property Type	Number
Patent Number:	8454721
Patent Number:	8709125
Application Number:	14247689
Patent Number:	8049333
Application Number:	14795748
Application Number:	14684313
Application Number:	14460999
Application Number:	14664679
Application Number:	14260888
Application Number:	13831351
Application Number:	13840864
Application Number:	14181523
Application Number:	13667556
Application Number:	14161310
Application Number:	14161319
Application Number:	13839689
Patent Number:	8637859
Patent Number:	9076988
Application Number:	14746105
Patent Number:	8957322
Application Number:	13668006

PATENT

Property Type	Number
Application Number:	13801322
Application Number:	13535112
Application Number:	14703830
Patent Number:	8723216
Patent Number:	9023217
Application Number:	13021274
Application Number:	13007305
Application Number:	13934678
Patent Number:	8815126
Application Number:	12960316
Patent Number:	8512438
Patent Number:	8541098
Application Number:	14021791
Patent Number:	8632700
Application Number:	13206279
Patent Number:	8018563
Application Number:	14281685
Patent Number:	8018568
Patent Number:	8760606
Patent Number:	8174667
Patent Number:	7849424
Patent Number:	8225238
Patent Number:	8094247
Application Number:	12098329
Patent Number:	8865027
Application Number:	90013509
Patent Number:	8618531
Application Number:	14208536
Patent Number:	8431925

**CORRESPONDENCE DATA**

**Fax Number:** (206)682-6031

*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.*

**Phone:** (206) 622-4900

**Email:** jenniferl@seedip.com

**Correspondent Name:** HAI HAN, PH.D.

**Address Line 1:** SEED IP LAW GROUP PLLC

**Address Line 2:** 701 FIFTH AVE., SUITE 5400

**Address Line 4:** SEATTLE, WASHINGTON 98104

**PATENT**

**REEL: 038295 FRAME: 0846**

<b>ATTORNEY DOCKET NUMBER:</b>	191137.001
<b>NAME OF SUBMITTER:</b>	HAI HAN, PH.D.
<b>SIGNATURE:</b>	/Hai Han/
<b>DATE SIGNED:</b>	03/29/2016

**Total Attachments: 39**

source=191137\_ASSIGN#page1.tif  
source=191137\_ASSIGN#page2.tif  
source=191137\_ASSIGN#page3.tif  
source=191137\_ASSIGN#page4.tif  
source=191137\_ASSIGN#page5.tif  
source=191137\_ASSIGN#page6.tif  
source=191137\_ASSIGN#page7.tif  
source=191137\_ASSIGN#page8.tif  
source=191137\_ASSIGN#page9.tif  
source=191137\_ASSIGN#page10.tif  
source=191137\_ASSIGN#page11.tif  
source=191137\_ASSIGN#page12.tif  
source=191137\_ASSIGN#page13.tif  
source=191137\_ASSIGN#page14.tif  
source=191137\_ASSIGN#page15.tif  
source=191137\_ASSIGN#page16.tif  
source=191137\_ASSIGN#page17.tif  
source=191137\_ASSIGN#page18.tif  
source=191137\_ASSIGN#page19.tif  
source=191137\_ASSIGN#page20.tif  
source=191137\_ASSIGN#page21.tif  
source=191137\_ASSIGN#page22.tif  
source=191137\_ASSIGN#page23.tif  
source=191137\_ASSIGN#page24.tif  
source=191137\_ASSIGN#page25.tif  
source=191137\_ASSIGN#page26.tif  
source=191137\_ASSIGN#page27.tif  
source=191137\_ASSIGN#page28.tif  
source=191137\_ASSIGN#page29.tif  
source=191137\_ASSIGN#page30.tif  
source=191137\_ASSIGN#page31.tif  
source=191137\_ASSIGN#page32.tif  
source=191137\_ASSIGN#page33.tif  
source=191137\_ASSIGN#page34.tif  
source=191137\_ASSIGN#page35.tif  
source=191137\_ASSIGN#page36.tif  
source=191137\_ASSIGN#page37.tif  
source=191137\_ASSIGN#page38.tif  
source=191137\_ASSIGN#page39.tif

ASSIGNMENT

WHEREAS, **Cambrios Technologies Corporation** (hereinafter referred to as ASSIGNOR), a company duly incorporated under the laws of Delaware having a place of business at 930 E. Arques Avenue, Sunnyvale, California 94085, is the assignee of the inventions and patent rights described and claimed in the patents and patent applications listed in Schedule A (“Patent Rights”) and Schedule B (“Trademark Rights”) attached hereto;

WHEREAS, **Champ Great Int’l Corporation** (hereinafter referred to as ASSIGNOR), a company duly incorporated under the laws of Republic of Seychelles having a place of business at Suite 1, Commercial House One, Eden Island, Republic of Seychelles, is desirous of acquiring ASSIGNOR’s entire right, title and interest in and to the Patent Rights, and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, including the sum of 250 Euros, the receipt of which is hereby acknowledged, ASSIGNOR hereby sells, assigns and transfers unto said ASSIGNEE its entire right, title and interest in and to the Patent Rights and any and all letter patents that may be granted for said inventions in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States applications to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, and including the right to sue and collect damages for past and present infringement of said letters patent; said inventions, applications and all letters patents on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR had this assignment, transfer and sale not been made. ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue all letters patents on said invention to ASSIGNEE. ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patents on said invention, for litigation regarding said letters patents, or for the purpose of protecting title to said invention or letters patents therefor.

**Cambrios Technologies Corporation**

MARCH 16, 2016  
Date

By: [Signature]

Printed Name: John LeMoncheck

Title: President & CEO

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

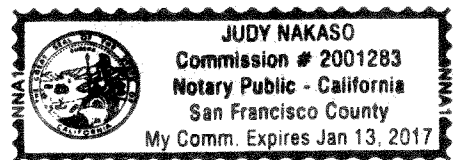
State of California )  
County of San Francisco )

On March 16, 2016, before me, Judy Nakaso, a Notary Public, personally appeared John LeMoncheck, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature]



March 16, 2016

Date

**Champ Great Int'l Corporation**

By: Eckhard Martin

Print Name: Eckhard Martin

Title: Senior Advisor & General Counsel

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

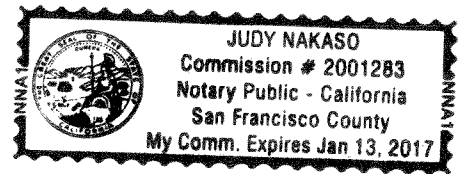
State of California )  
County of San Francisco )

On March 16, 2016, before me, Judy Nakaso, a Notary Public, personally appeared Eckhard Martin, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies); and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Judy Nakaso



SCHEDULE A

CAMBRIOS PATENT STATUS REPORT  
March 9, 2016

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.410	US		11/766552	06/21/2007	20080210052	09/04/2008	06/04/2013	8454721	METHODS OF CONTROLLING NANOSTRUCTURE FORMATIONS AND SHAPES	Granted	Cambrios Technologies Corporation
191137.410	US	D1	13/040549	03/04/2011	20110185852	08/04/2011	04/29/2014	8709125	METHODS OF CONTROLLING NANOSTRUCTURE FORMATIONS AND SHAPES	Granted	Cambrios Technologies Corporation
191137.410	US	C1	14/247689	04/08/2014	20140216207	08/07/2014			METHODS OF CONTROLLING NANOSTRUCTURE FORMATIONS AND SHAPES	Published	Cambrios Technologies Corporation
191137.416	US		11/504822	08/14/2006	20070074316	03/29/2007	11/01/2011	8049333	TRANSPARENT CONDUCTORS COMPRISING METAL NANOWIRES	Granted	Cambrios Technologies Corporation
191137.416	JP		2008-526300	08/14/2006	2009-505358	02/05/2009	05/23/2014	5546763	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416	KR		10-2008-7006010	08/14/2006	10-2008-0066658	07/16/2008	11/20/2013	10-1333012	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.463	US		14/795748	07/09/2015	20160014896	01/14/2016			ELECTRICAL CONTACTS IN LAYERED STRUCTURES	Published	Cambrios Technologies Corporation
191137.461	WO		US2015/021851	03/20/2015	WO2015/143383	09/24/2015			IMPROVED LIGHT STABILITY OF NANOWIRE-BASED TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.461	TW		104109147	03/20/2015	20154170	11/01/2015			IMPROVED LIGHT STABILITY OF NANOWIRE-BASED TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.462	WO		US2015/025485	04/10/2015	WO2015/157741	10/15/2015			METHODS OF CONTROLLING NANOWIRE MORPHOLOGY	Published	Cambrios Technologies Corporation
191137.462	TW		104111834	04/13/2015	201542446	11/16/2015			METHODS OF CONTROLLING NANOWIRE MORPHOLOGY	Published	Cambrios Technologies Corporation
191137.462	US		14/684313	04/10/2015	20150290715	10/15/2015			METHODS OF CONTROLLING NANOWIRE MORPHOLOGY	Published	Cambrios Technologies Corporation
191137.459	US		14/460999	08/15/2014	20150090573	04/02/2015			SILVER NANOSTRUCTURE-BASED OPTICAL STACKS AND TOUCH SENSORS WITH UV PROTECTION	Published	Cambrios Technologies Corporation

PATENT

REEL: 038295 FRAME: 0851

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.459	WO		US2014/057461	09/25/2014	WO2015/048293	04/02/2015			SILVER NANOSTRUCTURE-BASED OPTICAL STACKS AND TOUCH SENSORS WITH UV PROTECTION	Published	Cambrios Technologies Corporation
191137.459	TW		103133355	09/25/2014	201527766	07/16/2015			SILVER NANOSTRUCTURE-BASED OPTICAL STACKS AND TOUCH SENSORS WITH UV PROTECTION	Published	Cambrios Technologies Corporation
191137.460	WO		US2014/014263	01/31/2014	WO2015/116200	08/06/2015			TANDEM ORGANIC PHOTOVOLTAIC DEVICES THAT INCLUDE A METALLIC NANOSTRUCTURE RECOMBINATION LAYER	Published	Cambrios Technologies Corporation
191137.460	TW		104103461	02/02/2015	201535704	09/16/2015			TANDEM ORGANIC PHOTOVOLTAIC DEVICES THAT INCLUDE A METALLIC NANOSTRUCTURE RECOMBINATION LAYER	Published	Cambrios Technologies Corporation
191137.461	US		14/664679	03/20/2015	20150270024	09/24/2015			LIGHT STABILITY OF NANOWIRE-BASED TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.455	SG		11201406242Y	04/04/2013					SYSTEM AND METHODS OF CALCULATING DIFFUSE REFLECTION OF AN OPTICAL STACK WITH A NANOWIRE	Pending	Cambrios Technologies Corporation
191137.455	CN		201380029858.4	04/04/2013	CN104428771A	03/18/2015			SYSTEM AND METHODS OF CALCULATING DIFFUSE REFLECTION OF AN OPTICAL STACK WITH A NANOWIRE	Published	Cambrios Technologies Corporation
191137.455	JP		2015-504733	04/04/2013	2015-515064	05/21/2015			SYSTEM AND METHODS OF CALCULATING DIFFUSE REFLECTION OF AN OPTICAL STACK WITH A NANOWIRE	Published	Cambrios Technologies Corporation
191137.455	KR		10-2014-7031269	04/04/2013	10-2014-0143833	12/17/2104			SYSTEM AND METHODS OF CALCULATING DIFFUSE REFLECTION OF AN OPTICAL STACK WITH A NANOWIRE	Published	Cambrios Technologies Corporation
191137.457	US		14/260888	04/24/2014	20140340811	11/20/2014			CONDUCTIVE NANOSTRUCTURE-BASED FILMS WITH IMPROVED ESD PERFORMANCE	Published	Cambrios Technologies Corporation



**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.458	WO		US2015/059240	11/05/2015					SHORT-CHAIN FLUROSURFACTANTS WITH IODIDE ADDITIVES FOR FORMING SILVER NANOWIRE-BASED TRANSPARENT CONDUCTIVE FILMS	Pending	Cambrios Technologies Corporation
191137.454	EP		14708390.1	02/14/2014	2956807	12/23/2015			METHODS TO INCORPORATE SILVER NANOWIRE-BASED TRANSPARENT CONDUCTORS IN ELECTRONIC DEVICES	Published	Cambrios Technologies Corporation
191137.454	JP		2015-558171	02/14/2014					METHODS TO INCORPORATE SILVER NANOWIRE-BASED TRANSPARENT CONDUCTORS IN ELECTRONIC DEVICES	Pending	Cambrios Technologies Corporation
191137.454	KR		10-2015-7025061	02/14/2014	10-2015-0119255	10/23/2015			METHODS TO INCORPORATE SILVER NANOWIRE-BASED TRANSPARENT CONDUCTORS IN ELECTRONIC DEVICES	Published	Cambrios Technologies Corporation
191137.454	SG		11201506221S	02/14/2014					METHODS TO INCORPORATE SILVER NANOWIRE-BASED TRANSPARENT CONDUCTORS IN ELECTRONIC DEVICES	Pending	Cambrios Technologies Corporation
191137.455	US		13/831351	03/14/2013	20140272105	09/18/2014			SYSTEM AND METHODS OF REDUCING DIFFUSE REFLECTION OF AN OPTICAL STACK	Published	Cambrios Technologies Corporation
191137.455	TW		102112256	04/03/2013	201342102	10/16/2013			SYSTEM AND METHODS OF REDUCING DIFFUSE REFLECTION OF AN OPTICAL STACK	Published	Cambrios Technologies Corporation
191137.453	TW		103102355	01/22/2014	201435924	09/16/2014			HIGH THERMAL STABILITY NANOSTRUCTURE TRANSPARENT CONDUCTORS FOR IMPROVED ESD RESISTANCE	Published	Cambrios Technologies Corporation
191137.453	JP		2015-553920	01/22/2014					NANOSTRUCTURE TRANSPARENT CONDUCTORS HAVING HIGH THERMAL STABILITY FOR ESD PROTECTION	Pending	Cambrios Technologies Corporation
191137.453	KR		10-2015-7022885	01/22/2014	10-2015-0113050	10/07/2015			NANOSTRUCTURE TRANSPARENT CONDUCTORS HAVING HIGH THERMAL STABILITY FOR ESD PROTECTION	Published	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.454	US		13/840864	03/15/2013	20140234618	08/21/2014			METHODS TO INCORPORATE SILVER NANOWIRE-BASED TRANSPARENT CONDUCTORS IN ELECTRONIC DEVICES	Published	Cambrios Technologies Corporation
191137.454	US	C1	14/181523	02/14/2014	20140234661	08/21/2014			METHODS TO INCORPORATE SILVER NANOWIRE-BASED TRANSPARENT CONDUCTORS IN ELECTRONIC DEVICES	Published	Cambrios Technologies Corporation
191137.454	CN		201480019686.7	02/14/2014	CN105283782A	01/27/2016			METHODS TO INCORPORATE SILVER NANOWIRE-BASED TRANSPARENT CONDUCTORS IN ELECTRONIC DEVICES	Published	Cambrios Technologies Corporation
191137.449	SG		11201406017T	03/27/2013					ELECTRICAL CONTACTS IN LAYERED STRUCTURES	Pending	Cambrios Technologies Corporation
191137.449	HK		15107123.8	03/27/2013	1206324	01/08/2016			ELECTRICAL CONTACTS IN LAYERED STRUCTURES	Published	Cambrios Technologies Corporation
191137.451	US		13/667556	11/02/2012	20130115371	05/09/2013			SYSTEM AND METHODS OF REDUCING DIFFUSE REFLECTION OF AN OPTICAL STACK	Published	Cambrios Technologies Corporation
191137.452	US		14/161310	01/22/2014	20140202742	07/24/2014			TWO-SIDED LASER PATTERNING ON THIN FILM SUBSTRATES	Published	Cambrios Technologies Corporation
191137.452	TW		103102359	01/22/2014	201442042	11/01/2014			TWO-SIDED LASER PATTERNING ON THIN FILM SUBSTRATES	Published	Cambrios Technologies Corporation
191137.453	US		14/161319	01/22/2014	20140202738	07/24/2014			NANOSTRUCTURE TRANSPARENT CONDUCTORS HAVING HIGH THERMAL STABILITY FOR ESD PROTECTION	Published	Cambrios Technologies Corporation
191137.449	US		13/839689	03/15/2013	20130273315	10/17/2013			ELECTRICAL CONTACTS IN LAYERED STRUCTURES	Published	Cambrios Technologies Corporation
191137.449	TW		102110987	03/27/2013	201348809	12/01/2013			ELECTRICAL CONTACTS IN LAYERED STRUCTURES	Published	Cambrios Technologies Corporation
191137.449	CN		201380028474.0	03/27/2013	CN104411621A	03/11/2015			ELECTRICAL CONTACTS IN LAYERED STRUCTURES	Published	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.449	EP		13716623.7	03/27/2013	2830990	02/04/2015			ELECTRICAL CONTACTS IN LAYERED STRUCTURES	Published	Cambrios Technologies Corporation
191137.449	JP		2015-503546	03/27/2013	2015-524072	08/20/2015			ELECTRICAL CONTACTS IN LAYERED STRUCTURES	Published	Cambrios Technologies Corporation
191137.449	KR		10-2014-7030471	03/27/2013	10-2015-0003232	01/08/2015			ELECTRICAL CONTACTS IN LAYERED STRUCTURES	Published	Cambrios Technologies Corporation
191137.448	US		13/651128	10/12/2012	20130105770	05/02/2013	01/28/2014	8637859	OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES	Granted	Cambrios Technologies Corporation
191137.448	US	D1	14/109164	12/17/2013	20140175407	06/26/2014	07/07/2015	9076988	OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES	Granted	Cambrios Technologies Corporation
191137.448	EP		12778915.4	10/12/2012	2766939	08/20/2014			OPTO-ELECTRICAL DEVICES WITH ELECTRODE INCORPORATING METAL NANOWIRES	Published	Cambrios Technologies Corporation
191137.448	JP		2014-535956	10/12/2012	2014-534572	12/18/2014			OPTO-ELECTRICAL DEVICES WITH ELECTRODE INCORPORATING METAL NANOWIRES	Published	Cambrios Technologies Corporation
191137.448	KR		10-2014-7012831	10/12/2012	10-2014-0095488	08/01/2014			OPTO-ELECTRICAL DEVICES WITH ELECTRODE INCORPORATING METAL NANOWIRES	Published	Cambrios Technologies Corporation
191137.448	US	C1	14/746105	06/22/2015	20150287955	10/08/2015			OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES	Published	Cambrios Technologies Corporation
191137.447	TW		102144948	12/06/2013	201423774	06/16/2014			CONDUCTIVE FILMS HAVING LOW-VISIBILITY PATTERNS AND METHODS OF PRODUCING THE SAME	Published	Cambrios Technologies Corporation
191137.447	CN		201380070551.9	12/06/2013	104969303	10/07/2015			CONDUCTIVE FILMS HAVING LOW-VISIBILITY PATTERNS AND METHODS OF PRODUCING THE SAME	Published	Cambrios Technologies Corporation
191137.447	EP		13815276.4	12/06/2013	2929543	10/14/2015			CONDUCTIVE FILMS HAVING LOW-VISIBILITY PATTERNS AND METHODS OF PRODUCING THE SAME	Published	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.447	JP		2015-545889	12/06/2013					CONDUCTIVE FILMS HAVING LOW-VISIBILITY PATTERNS AND METHODS OF PRODUCING THE SAME	Pending	Cambrios Technologies Corporation
191137.447	KR		10-2015-7018211	12/06/2013	10-2015-0095770	08/21/2015			CONDUCTIVE FILMS HAVING LOW-VISIBILITY PATTERNS AND METHODS OF PRODUCING THE SAME	Published	Cambrios Technologies Corporation
191137.447	SG		11201504223X	12/06/2013					CONDUCTIVE FILMS HAVING LOW-VISIBILITY PATTERNS AND METHODS OF PRODUCING THE SAME	Pending	Cambrios Technologies Corporation
191137.446	KR		10-2014-7019338	11/02/2012	10-2014-0090244	07/16/2014			METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTIVE FILMS AND TOUCH PANELS MADE OF THE SAME	Published	Cambrios Technologies Corporation
191137.446	JP		2014-540149	11/02/2012	2015-504546	02/12/2015			METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTIVE FILMS AND TOUCH PANELS MADE OF THE SAME	Published	Cambrios Technologies Corporation
191137.446	SG		112014019655	11/02/2012					METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTIVE FILMS AND TOUCH PANELS MADE OF THE SAME	Pending	Cambrios Technologies Corporation
191137.446	HK		15101830.5	11/02/2012	1201374	08/28/2015			METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTIVE FILMS AND TOUCH PANELS MADE OF THE SAME	Published	Cambrios Technologies Corporation
191137.447	US		13/791086	03/08/2013	20140158400	06/12/2014	02/17/2015	8957322	CONDUCTIVE FILMS HAVING LOW-VISIBILITY PATTERNS AND METHODS OF PRODUCING THE SAME	Granted	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.447	WO		US2013/073685	12/06/2013	WO2014/089491	06/12/2014			CONDUCTIVE FILMS HAVING LOW-VISIBILITY PATTERNS AND METHODS OF PRODUCING THE SAME	Published	Cambrios Technologies Corporation
191137.444	KR		10-2014-7002834	06/27/2012	10-2014-0051285	04/30/2014			ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS	Published	Cambrios Technologies Corporation
191137.446	US		13/668006	11/02/2012	20130120846	05/16/2013			METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTING FILMS AND TOUCH PANELS MADE OF THE SAME	Published	Cambrios Technologies Corporation
191137.446	TW		101141041	11/05/2012	201337954	09/16/2013			METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTING FILMS AND TOUCH PANELS MADE OF THE SAME	Published	Cambrios Technologies Corporation
191137.446	US	C1	13/801322	03/13/2013	20130194671	08/01/2013			METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTIVE FILMS AND TOUCH PANELS MADE OF THE SAME	Published	Cambrios Technologies Corporation
191137.446	CN		201280065984.0	11/02/2012	CN104067351A	09/24/2014			METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTIVE FILMS AND TOUCH PANELS MADE OF THE SAME	Published	Cambrios Technologies Corporation
191137.446	EP		12795669.6	11/02/2012	2774156	09/10/2014			METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTIVE FILMS AND TOUCH PANELS MADE OF THE SAME	Published	Cambrios Technologies Corporation
191137.444	WO		US2012/044462	06/27/2012	WO2013/006349	01/10/2013			ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS	Published	Cambrios Technologies Corporation
191137.444	US		13/535112	06/27/2012	20130040106	02/14/2013			ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS	Published	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.444	JP		2014-518975	06/27/2012	2014-526956	10/09/2014			ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS	Published	Cambrios Technologies Corporation
191137.444	SG		201309565-8	06/27/2012					ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS	Pending	Cambrios Technologies Corporation
191137.444	CN		201280041962.0	06/27/2012	CN103889595A	06/25/2014			ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS	Published	Cambrios Technologies Corporation
191137.444	EP		12733380.5	06/27/2012	2726217	05/07/2014			ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS	Published	Cambrios Technologies Corporation
191137.440	TW		101107221	03/03/2012	201242425	10/16/2012			METHOD OF TUNING WORK FUNCTION OF NANOWIRE-BASED TRANSPARENT CONDUCTOR	Published	Cambrios Technologies Corporation
191137.440	KR		10-2013-7026283	03/02/2012	10-2014-0020957	02/19/2014			METHOD OF TUNING WORK FUNCTION OF METAL NANOSTRUCTURE-BASED TRANSPARENT CONDUCTOR	Published	Cambrios Technologies Corporation
191137.440	JP		2013-556911	03/02/2012	2014-511551	05/15/2014			METHOD OF TUNING WORK FUNCTION OF METAL NANOSTRUCTURE-BASED TRANSPARENT CONDUCTOR	Published	Cambrios Technologies Corporation
191137.440	EP		12710827.2	03/02/2012	2681780	01/08/2014			METHOD OF TUNING WORK FUNCTION OF METAL NANOSTRUCTURE-BASED TRANSPARENT CONDUCTOR	Published	Cambrios Technologies Corporation
191137.440	SG		201306581-8	03/02/2012	193253	10/30/2014	09/17/2014	193253	METHOD OF TUNING WORK FUNCTION OF METAL NANOSTRUCTURE-BASED TRANSPARENT CONDUCTOR	Granted	Cambrios Technologies Corporation
191137.440	HK		14102485.2	03/02/2012	1190501	07/04/2014			METHOD OF TUNING WORK FUNCTION OF METAL NANOSTRUCTURE-BASED TRANSPARENT CONDUCTOR	Published	Cambrios Technologies Corporation
191137.438	EP		11788629.1	10/21/2011	2630207	08/28/2013			NANOWIRE INK FORMULATIONS AND PRINTING OF SAME	Published	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.438	KR		10-2013-7012129	10/21/2011	10-2013-0132800	12/05/2013			NANOWIRE INK FORMULATIONS AND PRINTING OF SAME	Published	Cambrios Technologies Corporation
191137.438	HK		14100584.6	10/21/2011	1187637	04/11/2014			NANOWIRE INK FORMULATIONS AND PRINTING OF SAME	Published	Cambrios Technologies Corporation
191137.439	WO		US2011/058988	11/02/2011	WO2012/061514	05/10/2012			GRID AND NANOSTRUCTURE TRANSPARENT CONDUCTOR FOR LOW SHEET RESISTANCE APPLICATIONS	Published	Cambrios Technologies Corporation
191137.439	US	D1	14/703830	05/04/2015	20150313022	10/29/2015			GRID AND NANOSTRUCTURE TRANSPARENT CONDUCTOR FOR LOW SHEET RESISTANCE APPLICATIONS	Published	Cambrios Technologies Corporation
191137.440	US		13/411154	03/02/2012	20120223358	09/06/2012	05/13/2014	8723216	METHOD OF TUNING WORK FUNCTION OF METAL NANOSTRUCTURE-BASED TRANSPARENT CONDUCTOR	Granted	Cambrios Technologies Corporation
191137.434T W	TW		100104169	02/08/2011	201137062	11/01/2011			PHOTOSENSITIVE INK COMPOSITIONS AND TRANSPARENT CONDUCTORS AND METHOD OF USING THE SAME	Published	Cambrios Technologies Corporation
191137.435	US		13/069837	03/23/2011	20110253668	10/20/2011	05/05/2015	9023217	ETCH PATTERNING OF NANOSTRUCTURE TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.435H K	HK		13109272.5	03/23/2011	1182217	11/22/2013			ETCH PATTERNING OF NANOSTRUCTURE TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.435J P	JP		2013-501428	03/23/2011	2013-525946	06/20/2013	03/27/2015	5718449	ETCH PATTERNING OF NANOSTRUCTURE TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.435K R	KR		10-2012-7027606	03/23/2011					ETCH PATTERNING OF NANOSTRUCTURE TRANSPARENT CONDUCTORS	Pending	Cambrios Technologies Corporation
191137.436 WO	WO		US2011/058801	11/01/2011	WO2012/061399	05/10/2012			COATING COMPOSITIONS FOR FORMING NANOCOMPOSITE FILMS	Published	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.434	JP		2012-552105	02/04/2011	2013-518974	05/23/2013			PHOTOSENSITIVE INK COMPOSITIONS AND TRANSPARENT CONDUCTORS AND METHOD OF USING THE SAME	Published	Cambrios Technologies Corporation
191137.434	SG	1	102015007980	02/04/2011	2015038	03/30/2015			PHOTOSENSITIVE INK COMPOSITIONS AND TRANSPARENT CONDUCTORS AND METHOD OF USING THE SAME	Published	Cambrios Technologies Corporation
191137.434C N	CN		201180008500.4	02/04/2011	CN102834472A	12/19/2012	04/22/2015	ZL20118000 8500.4	PHOTOSENSITIVE INK COMPOSITIONS AND TRANSPARENT CONDUCTORS AND METHOD OF USING THE SAME	Granted	Cambrios Technologies Corporation
191137.434E P	EP		11705086.4	02/04/2011	2531566	12/12/2012			PHOTOSENSITIVE INK COMPOSITIONS AND TRANSPARENT CONDUCTORS AND METHOD OF USING THE SAME	Published	Cambrios Technologies Corporation
191137.434H K	HK		13105377.7	02/04/2011	1178554	09/13/2013			PHOTOSENSITIVE INK COMPOSITIONS AND TRANSPARENT CONDUCTORS AND METHOD OF USING THE SAME	Published	Cambrios Technologies Corporation
191137.434K R	KR		10-2012-7022701	02/04/2011	10-2013-0002320	01/07/2013			PHOTOSENSITIVE INK COMPOSITIONS AND TRANSPARENT CONDUCTORS AND METHOD OF USING THE SAME	Published	Cambrios Technologies Corporation
191137.433H K	HK		13104125.5	01/14/2011	1177320	08/16/2013			LOW-HAZE TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.433J P	JP		2012-549113	01/14/2011	2013-517603	05/16/2013			LOW-HAZE TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.433K R	KR		10-2012-7021286	01/14/2011	10-2012-0124444	11/13/2012			LOW-HAZE TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.433S G	SG		201205033-2	01/14/2011	182421	08/30/2012	06/14/2013	182421	LOW-HAZE TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.433T W	TW		100101503	01/14/2011	201203286	01/16/2012			LOW-HAZE TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation



**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.434	US		13/021274	02/04/2011	20110192633	08/11/2011			PHOTOSENSITIVE INK COMPOSITIONS AND TRANSPARENT CONDUCTORS AND METHOD OF USING THE SAME	Published	Cambrios Technologies Corporation
191137.432	JP	1	2015-129783	12/03/2010	2015-181132	10/15/2015			NANOSTRUCTURE-BASED TRANSPARENT CONDUCTORS HAVING INCREASED HAZE AND DEVICES COMPRISING THE SAME	Published	Cambrios Technologies Corporation
191137.433	US		13/007305	01/14/2011	20110174190	07/21/2011			LOW-HAZE TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.433	CN		201180006215.9	01/14/2011	CN102763171A	10/31/2012	11/25/2015	ZL 2011800062 15.9	LOW-HAZE TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.433	US	D1	13/934678	07/03/2013	20130291683	11/07/2013			LOW-HAZE TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.433	CN	1	201510684844.7	01/14/2011	CN105219154A	01/06/2016			LOW-HAZE TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.433E P	EP		11704686.2	01/14/2011	2524380	11/21/2012			LOW-HAZE TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.432	CN		201080062238.7	12/03/2010	CN102884923A	12/19/2012			NANOSTRUCTURE-BASED TRANSPARENT CONDUCTORS HAVING INCREASED HAZE AND DEVICES COMPRISING THE SAME	Published	Cambrios Technologies Corporation
191137.432	EP		10807760.3	12/03/2010	2507840	10/10/2012			NANOSTRUCTURE-BASED TRANSPARENT CONDUCTORS HAVING INCREASED HAZE AND DEVICES COMPRISING THE SAME	Published	Cambrios Technologies Corporation
191137.432	JP		2012-557029	12/03/2010	2013-513223	04/18/2013	10/09/2015	5818822	NANOSTRUCTURE-BASED TRANSPARENT CONDUCTORS HAVING INCREASED HAZE AND DEVICES COMPRISING THE SAME	Granted	Cambrios Technologies Corporation
191137.432	KR		10-2012-7017288	12/03/2010	10-2013-0010107	01/25/2013			NANOSTRUCTURE-BASED TRANSPARENT CONDUCTORS HAVING INCREASED HAZE AND DEVICES COMPRISING THE SAME	Published	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.432	HK		13103135.5	12/03/2010	1175889	07/12/2013			NANOSTRUCTURE-BASED TRANSPARENT CONDUCTORS HAVING INCREASED HAZE AND DEVICES COMPRISING THE SAME	Published	Cambrios Technologies Corporation
191137.432	SG	1	10201406337U	12/03/2010	10201406337U	11/27/2014			NANOSTRUCTURE-BASED TRANSPARENT CONDUCTORS HAVING INCREASED HAZE AND DEVICES COMPRISING THE SAME	Published	Cambrios Technologies Corporation
191137.430	HK	1	13109088.9	08/25/2010	1181704	11/15/2013			METHODS FOR CONTROLLING METAL NANOSTRUCTURES MORPHOLOGY	Published	Cambrios Technologies Corporation
191137.431	US		12/380294	02/25/2009	20090223703	09/10/2009	08/26/2014	8815126	METHOD AND COMPOSITION FOR SCREEN PRINTING OF CONDUCTIVE FEATURES	Granted	Cambrios Technologies Corporation
191137.431	SG	1	201301142-4	02/25/2009	0188158	03/28/2013			METHOD AND COMPOSITION FOR SCREEN PRINTING OF CONDUCTIVE FEATURES	Published	Cambrios Technologies Corporation
191137.431C N	CN		200980114812.6	02/25/2009	CN102015921A	04/13/2011	08/27/2014	ZL200980114812.6	METHOD AND COMPOSITION FOR SCREEN PRINTING OF CONDUCTIVE FEATURES	Granted	Cambrios Technologies Corporation
191137.431T W	TW		098106223	02/25/2009	200946617	11/16/2009	09/21/2015	1500719	METHOD AND COMPOSITION FOR SCREEN PRINTING OF CONDUCTIVE FEATURES	Granted	Cambrios Technologies Corporation
191137.432	US		12/960316	12/03/2010	20110163403	07/07/2011			NANOSTRUCTURE-BASED TRANSPARENT CONDUCTORS HAVING INCREASED HAZE AND DEVICES COMPRISING THE SAME	Published	Cambrios Technologies Corporation
191137.430	CN		201080042734.6	08/25/2010	CN102762324A	10/31/2012			METHODS FOR CONTROLLING METAL NANOSTRUCTURES MORPHOLOGY	Allowed	Cambrios Technologies Corporation
191137.430	KR		10-2012-7007/419	08/25/2010	10-2012-0082409	07/23/2012	07/27/2015	10-1540951	METHODS FOR CONTROLLING METAL NANOSTRUCTURES MORPHOLOGY	Granted	Cambrios Technologies Corporation
191137.430	EP		10749725.7	08/25/2010	2470318	07/04/2012			METHODS FOR CONTROLLING METAL NANOSTRUCTURES MORPHOLOGY	Published	Cambrios Technologies Corporation
191137.430	SG		201201203-5	08/25/2010	0178527	03/29/2012	12/31/2012	178527	METHODS FOR CONTROLLING METAL NANOSTRUCTURES MORPHOLOGY	Granted	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.430	HK		12112446.1	08/24/2010	1173107	05/10/2013			METHODS FOR CONTROLLING METAL NANOSTRUCTURES MORPHOLOGY	Published	Cambrios Technologies Corporation
191137.430	SG	1	201209176-5	08/25/2010	0186652	01/30/2013	03/15/2013	186652	METHODS FOR CONTROLLING METAL NANOSTRUCTURES MORPHOLOGY	Granted	Cambrios Technologies Corporation
191137.428E P	EP		10814731.5	08/24/2010	2470610	07/04/2012			PURIFICATION OF METAL NANOSTRUCTURES FOR IMPROVED HAZE IN TRANSPARENT CONDUCTORS MADE FROM THE SAME	Published	Cambrios Technologies Corporation
191137.428H K	HK		12112447.0	08/24/2010	1173170	05/10/2013			PURIFICATION OF METAL NANOSTRUCTURES FOR IMPROVED HAZE IN TRANSPARENT CONDUCTORS MADE FROM THE SAME	Published	Cambrios Technologies Corporation
191137.428K R	KR		10-2012-7007187	08/24/2010	10-2012-0065361	06/20/2012	11/27/2015	10-1574320	PURIFICATION OF METAL NANOSTRUCTURES FOR IMPROVED HAZE IN TRANSPARENT CONDUCTORS MADE FROM THE SAME	Granted	Cambrios Technologies Corporation
191137.428T W	TW		099128309	08/24/2010	201125730	08/01/2011			PURIFICATION OF SILVER NANOSTRUCTURES FOR IMPROVED HAZE IN CONDUCTIVE FILMS MADE FROM THE SAME	Published	Cambrios Technologies Corporation
191137.429 WO	WO		US2010/046493	08/24/2010	WO2011/025782	03/03/2011			CONTACT RESISTANCE MEASUREMENT FOR RESISTANCE LINEARITY NANOSTRUCTURE THIN FILMS	Published	Cambrios Technologies Corporation
191137.430	US		12/868511	08/25/2010	20110048170	03/03/2011	08/20/2013	8512438	METHODS FOR CONTROLLING METAL NANOSTRUCTURES MORPHOLOGY	Granted	Cambrios Technologies Corporation
191137.427	JP	1	2014-214006	05/04/2010	2015-18824	01/29/2015			RELIABLE AND DURABLE CONDUCTIVE FILMS COMPRISING METAL NANOSTRUCTURES	Published	Cambrios Technologies Corporation
191137.428	US		12/862664	08/24/2010	20110045272	02/24/2011	09/24/2013	8541098	PURIFICATION OF METAL NANOSTRUCTURES FOR IMPROVED HAZE IN TRANSPARENT CONDUCTORS MADE FROM THE SAME	Granted	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.428	SG		201201200-1	08/24/2010	0178525	03/29/2012	02/14/2014	178525	PURIFICATION OF METAL NANOSTRUCTURES FOR IMPROVED HAZE IN TRANSPARENT CONDUCTORS MADE FROM THE SAME	Granted	Cambrios Technologies Corporation
191137.428	US	D1	14/021791	09/09/2013	20140001418	01/02/2014			PURIFICATION OF METAL NANOSTRUCTURES FOR IMPROVED HAZE IN TRANSPARENT CONDUCTORS MADE FROM THE SAME	Published	Cambrios Technologies Corporation
191137.428	SG	1	201400500-1	08/24/2010	201403B	03/28/2014			PURIFICATION OF METAL NANOSTRUCTURES FOR IMPROVED HAZE IN TRANSPARENT CONDUCTORS MADE FROM THE SAME	Published	Cambrios Technologies Corporation
191137.428 N	CN		201080037991.0	08/24/2010	CN102575117A	07/11/2012	08/26/2015	ZL201080037991.0	PURIFICATION OF METAL NANOSTRUCTURES FOR IMPROVED HAZE IN TRANSPARENT CONDUCTORS MADE FROM THE SAME	Granted	Cambrios Technologies Corporation
191137.426 W	TW		098106226	02/25/2009	200946608	11/16/2009	09/21/2015	1500713	METHODS AND COMPOSITIONS FOR INK JET DEPOSITION OF CONDUCTIVE FEATURES	Granted	Cambrios Technologies Corporation
191137.427	CN		201080027436.X	05/04/2010	CN102460500A	05/16/2012			RELIABLE AND DURABLE CONDUCTIVE FILMS COMPRISING METAL NANOSTRUCTURES	Allowed	Cambrios Technologies Corporation
191137.427	EP		10722866.0	05/04/2010	2430639	03/21/2012			RELIABLE AND DURABLE CONDUCTIVE FILMS COMPRISING METAL NANOSTRUCTURES	Published	Cambrios Technologies Corporation
191137.427	JP		2012-509919	05/04/2010	2012-526359	10/25/2012			RELIABLE AND DURABLE CONDUCTIVE FILMS COMPRISING METAL NANOSTRUCTURES	Published	Cambrios Technologies Corporation
191137.427	HK		12108718.0	05/04/2010	1168190	12/21/2012			RELIABLE AND DURABLE CONDUCTIVE FILMS COMPRISING METAL NANOSTRUCTURES	Published	Cambrios Technologies Corporation
191137.427	SG	1	102014020335	05/04/2010	2014088	08/28/2014			RELIABLE AND DURABLE CONDUCTIVE FILMS COMPRISING METAL NANOSTRUCTURES	Published	Cambrios Technologies Corporation
191137.426	US		12/380293	02/25/2009	20090283304	11/19/2009	01/21/2014	8632700	METHODS AND COMPOSITIONS FOR INK JET DEPOSITION OF CONDUCTIVE FEATURES	Granted	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.426	SG	1	201301143-2	02/25/2009	0188159	03/28/2013			METHODS AND COMPOSITIONS FOR INK JET DEPOSITION OF CONDUCTIVE FEATURES	Published	Cambrios Technologies Corporation
191137.426E P	EP		09713701.2	02/25/2009	2252662	11/24/2010			METHODS AND COMPOSITIONS FOR INK JET DEPOSITION OF CONDUCTIVE FEATURES	Published	Cambrios Technologies Corporation
191137.426H K	HK		11105183.3	02/25/2009	1151062	01/20/2012			METHODS AND COMPOSITIONS FOR INK JET DEPOSITION OF CONDUCTIVE FEATURES	Published	Cambrios Technologies Corporation
191137.426I P	JP		2010-548705	02/25/2009	2011-513534	04/28/2011			METHODS AND COMPOSITIONS FOR INK JET DEPOSITION OF CONDUCTIVE FEATURES	Published	Cambrios Technologies Corporation
191137.426J P	JP	1	2014-205565	02/25/2009	2015-45006	03/12/2015			METHODS AND COMPOSITIONS FOR INK JET DEPOSITION OF CONDUCTIVE FEATURES	Published	Cambrios Technologies Corporation
191137.425	US	C1	13/206279	08/09/2011	20120033367	02/09/2012			COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Published	Cambrios Technologies Corporation
191137.425	EP	1	12154338.3	04/18/2008	2477229	07/18/2012			COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Published	Cambrios Technologies Corporation
191137.425	HK	1	12113568.1	04/18/2008	1172994	05/03/2013			COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Published	Cambrios Technologies Corporation
191137.425	CN	1	201410024659.0	04/18/2008	CN103777417A	05/07/2014			COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Published	Cambrios Technologies Corporation
191137.425	JP	1	2015-81713	04/18/2008	2015-135831	07/27/2015			COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Published	Cambrios Technologies Corporation
191137.425	TW	1	104111825	04/18/2008	201543701	11/16/2015			COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Published	Cambrios Technologies Corporation
191137.425	CN		200880012842.1	04/18/2008	CN101689568A	03/31/2010	02/26/2014	Z120088001 2842.1	COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation
191137.425	EP		08746371.7	04/18/2008	2147466	01/27/2010	03/12/2014	2147466	COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation
191137.425	JP		2010-504302	04/18/2008	2010-525526	07/22/2010			COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Published	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.425	SG		200906779-4	04/18/2008	0156218	11/26/2009	05/15/2012	156218	COMPOSITION TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation
191137.425	HK		10101609.9	04/18/2008	1134860	05/14/2010	10/17/2014	1134860	COMPOSITE TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.425	KR		10-2009-7024079	04/18/2008	10-2010-0017128	02/16/2010	10/27/2014	10-1456838	COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation
191137.423H K	HK		10103343.6	04/18/2008	1134968	05/20/2010			HIGH CONTRAST TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Published	Cambrios Technologies Corporation
191137.423K R	KR		10-2009-7024080	04/18/2008	10-2010-0017129	02/16/2010	05/04/2015	10-1519125	HIGH CONTRAST TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation
191137.423S G1	SG		201202897-3	04/18/2008	0180278	05/30/2012	11/02/2015	180278	HIGH CONTRAST TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation
191137.423T W	TW		097114419	04/18/2008	200907519	02/16/2009	04/11/2015	1480653	HIGH CONTRAST TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation
191137.425	US		12/106193	04/18/2008	20080259262	10/23/2008	09/13/2011	8018563	COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation
191137.425	TW		097114413	04/18/2008	200924203	06/01/2009	06/01/2015	1487125	COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation
191137.421E P	EP		07844249.8	10/12/2007	2082436	07/29/2009			NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Published	Cambrios Technologies Corporation
191137.421H K	HK		10100628.8	10/12/2007	1133326	03/19/2010			NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Published	Cambrios Technologies Corporation
191137.421K R	KR		10-2009-7009758	10/12/2007	10-2009-0112626	10/28/2009	08/11/2015	101545219	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.423	JP		2010-504303	04/18/2008	2010-525527	07/22/2010	03/14/2014	5498937	HIGH CONTRAST TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation
191137.423C N	CN		200880012849.3	04/18/2008	CN101971354A	02/09/2011	12/26/2012	ZL200880012849.3	HIGH CONTRAST TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Granted	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.423E P	EP		08826766.1	04/18/2008	2160765	03/10/2010			HIGH CONTRAST TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME	Published	Cambrios Technologies Corporation
191137.4210 1CN	CN		201180011069.9	02/23/2011	CN102834936A	12/19/2012	05/20/2015	ZL201180011069.9	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND METHODS OF PATTERNING THE SAME	Granted	Cambrios Technologies Corporation
191137.4210 1JP	JP		2012-555116	02/23/2011	2013-522814	06/13/2013			NANOWIRE-BASED TRANSPARENT CONDUCTORS AND METHODS OF PATTERNING THE SAME	Published	Cambrios Technologies Corporation
191137.4210 1SG	SG		201206141-2	02/23/2011	183399	09/27/2012	06/28/2013	183399	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND METHODS OF PATTERNING THE SAME	Granted	Cambrios Technologies Corporation
191137.4210 1TW	TW		100106338	02/24/2011	201200467	01/01/2012			NANOWIRE-BASED TRANSPARENT CONDUCTORS AND METHODS OF PATTERNING THE SAME	Allowed	Cambrios Technologies Corporation
191137.421C N	CN		200780045661.4	10/12/2007	CN101589473A	11/25/2009	10/05/2011	ZL200780045661.4	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.421C N1	CN		201110229488.1	10/12/2007	CN102324462A	01/18/2012	07/01/2015	ZL201110229488.1	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.421	JP	1	2013-144203	10/12/2007	2014-3298	01/09/2014	07/31/2015	5785226	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.421	US	C2	14/281685	05/19/2014	20140338735	11/20/2014			NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Published	Cambrios Technologies Corporation
191137.421	SG	2	10201502808U	10/12/2007	10201502808U	05/28/2015			NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Published	Cambrios Technologies Corporation
191137.421	JP	2	2015-145635	10/12/2007	2016-12726	01/21/2016			NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Published	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.4210 1	EP		11708613.2	02/23/2011	2539943	01/02/2013			NANOWIRE-BASED TRANSPARENT CONDUCTORS AND METHODS OF PATTERNING THE SAME	Published	Cambrios Technologies Corporation
191137.4210 1	HK		13104408.3	02/23/2011	1177327	08/16/2013			NANOWIRE-BASED TRANSPARENT CONDUCTORS AND METHODS OF PATTERNING THE SAME	Published	Cambrios Technologies Corporation
191137.421	JP		2009-532614	10/12/2007	2010-507199	03/04/2010	11/15/2013	5409369	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.421	SG		200902441-5	10/12/2007	0151667	05/29/2009	10/31/2011	151667	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.421	US	C1	12/712096	02/24/2010	20100243295	09/30/2010	09/13/2011	8018568	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.421	US	D1	12/905664	10/15/2010	20110088770	04/21/2011	06/24/2014	8760606	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.421	US	D2	13/211205	08/16/2011	20110297642	12/08/2011	05/08/2012	8174667	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.421	SG	1	201107413-5	10/12/2007	0175612	11/28/2011	05/13/2015	175612	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.416S G4	SG		200901016-6	08/14/2006	0150517	03/30/2009	12/14/2012	150517	NANOWIRES-BASED TRANSPARENT CONDUCTORS (INVENTIONS I AND IV)	Granted	Cambrios Technologies Corporation
191137.418	US		11/871053	10/11/2007	20090228131	09/10/2009	12/07/2010	7849424	SYSTEMS, DEVICES, AND METHODS FOR CONTROLLING ELECTRICAL AND OPTICAL PROPERTIES OF TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.418	TW	1	102115172	10/11/2007	201333981	08/16/2013			METHOD OF FABRICATING TRANSPARENT CONDUCTORS	Allowed	Cambrios Technologies Corporation
191137.418	US	C1	12/911540	10/25/2010	20110230996	09/22/2011	07/17/2012	8225238	SYSTEMS, DEVICES, AND METHODS FOR CONTROLLING ELECTRICAL AND OPTICAL PROPERTIES OF TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation



**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.421	US		11/871767	10/12/2007	20080143906	06/19/2008	01/10/2012	8094247	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corporation
191137.4161 E3	IE		08103191.6	08/14/2006	1947702	05/06/2009	11/02/2011	1947702	NANOWIRE-BASED TRANSPARENT CONDUCTORS (INVENTION V)	Granted	Cambrios Technologies Corporation
191137.416N L3	NL		08103191.6	08/14/2006	1947702	05/06/2009	11/02/2011	1947702	NANOWIRE-BASED TRANSPARENT CONDUCTORS (INVENTION V)	Granted	Cambrios Technologies Corporation
191137.416S G	SG		200801100-9	08/14/2006			03/31/2010	139980	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416S G1	SG		200901013-3	08/14/2006	0150514	03/30/2009	08/15/2012	150514	NANOWIRES-BASED TRANSPARENT CONDUCTORS (INVENTION II)	Granted	Cambrios Technologies Corporation
191137.416S G2	SG		200901014-1	08/14/2006	0150515	03/30/2009	08/15/2012	150515	NANOWIRES-BASED TRANSPARENT CONDUCTORS (INVENTION III)	Granted	Cambrios Technologies Corporation
191137.416S G3	SG		200901015-8	08/14/2006	0150516	03/30/2009	07/31/2012	150516	NANOWIRES-BASED TRANSPARENT CONDUCTORS (INVENTION V)	Granted	Cambrios Technologies Corporation
191137.416G B3	GB		08103191.6	08/14/2006	1947702	05/06/2009	11/02/2011	1947702	NANOWIRE-BASED TRANSPARENT CONDUCTORS (INVENTION V)	Granted	Cambrios Technologies Corporation
191137.416H K	HK		08111586.9	08/14/2006	1115936	12/12/2008	03/22/2013	1115936	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416H K3	HK		09100619.2	08/14/2006	1122903	07/31/2009	08/10/2012	1122903	NANOWIRE-BASED TRANSPARENT CONDUCTORS (INVENTION V)	Granted	Cambrios Technologies Corporation
191137.416H K4	HK		09101923.1	08/14/2006	1121863	04/30/2009	11/15/2013	1121863	NANOWIRES-BASED TRANSPARENT CONDUCTORS (INVENTION I)	Granted	Cambrios Technologies Corporation
191137.416H K5	HK		11104799.2	08/14/2006	1150847	01/13/2012	03/22/2013	1150847	NANOWIRE INK	Granted	Cambrios Technologies Corporation
191137.416H K7	HK		12102281.0	08/14/2006	1162081	08/17/2012	11/20/2015	1162081	NANOWIRES-BASED TRANSPARENT CONDUCTORS (INVENTION II)	Granted	Cambrios Technologies Corporation
191137.416E P	EP		06801576.7	08/14/2006	1922759	05/21/2008	08/01/2012	1922759	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation

**PATENT**

**REEL: 038295 FRAME: 0869**

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.416E P6	EP		10174097.5	08/14/2006	2251389	11/17/2010	08/08/2012	2251389	NANOWIRE INK	Granted	Cambrios Technologies Corporation
191137.416E P7	EP		11168507.9	08/14/2006	2363891	09/07/2011	02/25/2015	2363891	PATTERNED NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416E P8	EP		12159544.1	08/14/2006	2477230	07/18/2012	02/25/2015	2477230	NANOWIRES-BASED TRANSPARENT CONDUCTORS ON A FLEXIBLE DONOR SUBSTRATE	Granted	Cambrios Technologies Corporation
191137.416F I3	FI		08103191.6	08/14/2006	1947702	05/06/2009	11/02/2011	1947702	NANOWIRED-BASED TRANSPARENT CONDUCTORS (INVENTION V)	Granted	Cambrios Technologies Corporation
191137.416F R3	FR		08103191.6	08/14/2006	1947702	05/06/2009	11/02/2011	1947702	NANOWIRED-BASED TRANSPARENT CONDUCTORS (INVENTION V)	Granted	Cambrios Technologies Corporation
191137.416C H3	CH		08103191.6	08/14/2006	1947702	05/06/2009	11/02/2011	1947702	NANOWIRED-BASED TRANSPARENT CONDUCTORS (INVENTION V)	Granted	Cambrios Technologies Corporation
191137.416C N	CN		200680038150.5	08/14/2006	CN101292362A	10/22/2008	06/08/2011	ZL200680038150.5	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416C N1	CN		201110092118.8	08/14/2006	CN102250506A	11/23/2011	07/09/2014	ZL201110092118.8	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416D 1	US		12/098329	04/04/2008	20080286447	11/20/2008			NANOWIRES-BASED TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.416D 2	US		12/098337	04/04/2008	20080283799	11/20/2008	10/21/2014	8865027	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416D E3	DE		08103191.6	08/14/2006	1947702	05/06/2009	11/02/2011	1947702	NANOWIRED-BASED TRANSPARENT CONDUCTORS (INVENTION V)	Granted	Cambrios Technologies Corporation
191137.416	JP	2	2014-116002	08/14/2006	2014-212117	11/13/2014			NANOWIRES-BASED TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.416	EP	9	15156396.2	08/14/2006	2922099	09/23/2015			NANOWIRES-BASED TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.416	US	RE	90/013509	05/19/2015			02/17/2016	8049333C1	EX PARTE REEXAMINATION OF USPN 8049333; TRANSPARENT CONDUCTORS COMPRISING METAL NANOWIRES	Granted	Cambrios Technologies Corporation
191137.416	KR	3	10-2015-7015424	08/14/2006	10-2015-0073222	06/30/2015			NANOWIRES-BASED TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.4160 15G4	SG		201205965-5	08/14/2006	0183720	09/27/2012	12/31/2012	183720	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416C 2	US		12/969430	12/15/2010	20110285019	11/24/2011	12/31/2013	8618531	TRANSPARENT CONDUCTORS COMPRISING METAL NANOWIRES	Granted	Cambrios Technologies Corporation
191137.416	EP	4	08103194.0	08/14/2006	1962348	07/23/2008	03/06/2013	1962348	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416	JP	1	2012-224256	08/14/2006	2013-151644	08/08/2013			NANOWIRES-BASED TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.416	HK	8	12113570.7	08/14/2006	1172995	05/03/2013	11/20/2015	1172995	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416	KR	1	10-2013-7000466	08/14/2006	10-2013-0010502	01/28/2013	10/27/2014	10-1456844	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corporation
191137.416	KR	2	10-2013-7020710	08/14/2006	10-2013-0092639	08/20/2013			NANOWIRES-BASED TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.416	TW	1	102144742	08/14/2006	201413753	04/01/2014			NANOWIRES-BASED TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corporation
191137.410	TW		096122329	06/21/2007	200806407	02/01/2008	06/01/2013	1397446	METHODS OF CONTROLLING NANOSTRUCTURE FORMATIONS AND SHAPES	Granted	Cambrios Technologies Corp.
191137.416	TW		095129801	08/14/2006	200729241	08/01/2007	03/01/2014	1428937	NANOWIRES-BASED TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corp.
191137.418	TW		096138097	10/11/2007	200828348	07/01/2008	06/01/2013	1397925	SYSTEMS, DEVICES, AND METHODS FOR CONTROLLING ELECTRICAL AND OPTICAL PROPERTIES OF TRANSPARENT CONDUCTORS	Granted	Cambrios Technologies Corp.

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.421	TW		096138425	10/12/2007	200839794	10/01/2008	02/11/2014	1426531	NANOWIRES-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Granted	Cambrios Technologies Corp.
191137.421	TW	1	103100070	10/12/2007	201440080	10/16/2014			NANOWIRES-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF	Published	Cambrios Technologies Corp.
191137.432	TW		099142293	12/03/2010	201140621	11/16/2011	04/11/2015	1480896	NANOSTRUCTURE-BASED TRANSPARENT CONDUCTORS HAVING INCREASED HAZE AND DEVICES COMPRISING THE SAME	Granted	Cambrios Technologies Corp.
191137.454	TW		103105150	02/17/2014	201437296	10/01/2014			METHODS TO INCORPORATE SILVER NANOWIRE-BASED TRANSPARENT CONDUCTORS IN ELECTRONIC DEVICES	Published	Cambrios Technologies Corp.
191137.457	TW		103117217	05/15/2014	201513336	04/01/2015			CONDUCTIVE NANOSTRUCTURE-BASED FILMS WITH IMPROVED ESD PERFORMANCE	Published	Cambrios Technologies Corp.
191137.435T W	TW		100109982	03/23/2011	201200469	01/01/2012			ETCH PATTERNING OF NANOSTRUCTURE TRANSPARENT CONDUCTORS	Allowed	Cambrios Technologies Corp.
191137.439	TW		100140003	11/02/2011	201230072	07/16/2012			GRID AND NANOSTRUCTURE TRANSPARENT CONDUCTOR FOR LOW SHEET RESISTANCE APPLICATIONS	Published	Cambrios Technologies Corp.
191137.444	TW		101123628	06/29/2012	201312599	03/16/2013			ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS	Published	Cambrios Technologies Corp.
191137.446 1	TW		103109204	03/13/2014	201441144	11/01/2014			METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTING FILMS AND TOUCH PANELS MADE OF THE SAME	Published	Cambrios Technologies Corp.
191137.448	TW		101137969	10/15/2012	201321299	06/01/2013			OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES	Published	Cambrios Technologies Corp.
191137.451	TW		101141040	11/05/2012	201337615	09/16/2013			DIFFUSE REFLECTION REDUCTION	Published	Cambrios Technologies Corp.

**CAMBRIOS PATENT STATUS REPORT**  
**March 9, 2016**

Seed No.	Country	SubCase	Application No.	Filing Date	Publication No.	Publication Date	Issue Date	Patent No.	Title	Status	Owner
191137.456	US		14/208,536	3/13/2014	2014/0262443	09/18/2014			HYBRID PATTERNED NANOSTRUCTURE TRANSPARENT CONDUCTORS	Published	Cambrios Technologies Corp.
N/A	US		12/890,493	9/24/2010	2011-0095275	04/28/2011	04/30/2013	8,431,925	ORGANIC ELECTRONIC DEVICES, COMPOSITIONS, AND METHODS	Granted	Cambrios Jointly Owned with Solvay
N/A	EP		EP2010771234A	09/24/2010	EP2471117A1	07/04/2012			ORGANIC ELECTRONIC DEVICES, COMPOSITIONS, AND METHODS	Published	Cambrios Jointly Owned with Solvay
N/A	JP		JP2012532215A	09/24/2010	2013-506262	02/21/2013	02/12/2015	JP05667195 B2	ORGANIC ELECTRONIC DEVICES, COMPOSITIONS, AND METHODS	Granted	Cambrios Jointly Owned with Solvay
N/A	KR		KR20127010175 A	09/24/2010	KR2012099216A	09/07/2012			ORGANIC ELECTRONIC DEVICES, COMPOSITIONS, AND METHODS	Published	Cambrios Jointly Owned with Solvay
N/A	CN		CN20108005339 7A	09/24/2010	CN102648542A	08/22/2012			ORGANIC ELECTRONIC DEVICES, COMPOSITIONS, AND METHODS	Published	Cambrios Jointly Owned with Solvay
N/A	SG		SG20122198A	09/24/2010	SG179682A1	05/30/3012			ORGANIC ELECTRONIC DEVICES, COMPOSITIONS, AND METHODS	Published	Cambrios Jointly Owned with Solvay
N/A	TW		TW2010132713A	09/27/2010			09/11/2015	TWI499602B	ORGANIC ELECTRONIC DEVICES, COMPOSITIONS, AND METHODS	Granted	Cambrios Jointly Owned with Solvay
N/A	HK		HK2012109429A	09/24/2010	HK1168688A0	01/04/2013			ORGANIC ELECTRONIC DEVICES, COMPOSITIONS, AND METHODS	Published	Cambrios Jointly Owned with Solvay

SCHEDULE B

Trademark Applications and Registrations Clearohm							
Country	Trademark	Application Number Application Date	Registration Number Registration Date	Class	Description of Services	Status	Next Renewal Date
Canada	CLEAROHM	1384050 2/13/2008	TMA871949 2/24/2014	01, 09	Industrial chemical preparations, namely, coating solutions for fabricating conductive and optical materials; industrial binder preparations for protecting and improving adhesion of conductive or optical films, namely, industrial overcoats and adhesives; adhesive transfer sheets for forming transparent conductive or optical films on substrates or other objects; diluents and solvents for blending with conductive and optical coatings in the nature of conductive and optical inks for fabricating conductive and optically active films; chemical preparation, namely, washing and cleaning preparations for use in manufacturing processes for cleaning substrates before coating with coating solutions and cleaning production equipment used with coating solutions (chemical preparations); chemical preparations namely, industrial sensitive emulsions and industrial sensitive agents for patterning conductive and optical films including conductive and optical films for use in thin-film transistors; chemical preparations, namely, industrial etchant preparations for patterning conductive and optical films including conductive and optical films for use in thin-film transistors; chemical preparations for patterning conductive and optical films for use in thin-film transistors; chemical industrial toning and fixing preparations for stabilizing conductive or optical films; developing chemical solutions for conductive and optical films for use in thin-film transistors in Class 1; Conductive and optical materials, namely, electrically conductive films and films with optical effects such as polarizers, quarter-wave plates, and films that shift of match indexes of refraction in Class 9.	Registered	2/24/2029
China	CLEAROHM	6594123 3/13/2008	6594123 4/7/2011	1	Binder materials for protecting and improving adhesion of conductive or optical films; adhesives for industrial purposes; toning and fixing solutions	Registered	4/6/2021

**Trademark Applications and Registrations**  
Clearohm

Country	Trademark	Application Number Application Date	Registration Number Registration Date	Class	Description of Services	Status	Next Renewal Date
China	CLEAROHM	6594122 3/13/2008	6594122 5/7/2010	9	for stabilizing conductive or optical films; and developing solutions for conductive and optical films for use in thin-film transistors in Class 1. Electrical conductors (conductive and optical goods); optical sheets (conductive and optical goods); transparent conductors (electric conductors); polarizers (optical goods); and quarter wave plates (optical goods) in Class 9.	Registered	5/6/2020
European Community	CLEAROHM	6688717 2/13/2008	6688717 12/11/2008	01, 09	Coating solutions for fabricating conductive and optical materials; binder materials for protecting and improving adhesion of conductive or optical films; transfer sheets for forming transparent conductive or optical films on substrates or other objects; diluents and solvents for blending with coating solutions for fabricating conductive and optical materials; washing and cleaning solutions for cleaning substrates before coating with coating solutions and cleaning production equipment used with coating solutions; photosensitizer, photoresist and etchant solutions for patterning conductive and optical films including conductive and optical films for use in thin-film transistors; toning and fixing solutions for stabilizing conductive or optical films; and developing solutions for conductive and optical films for use in thin-film transistors in Class 1; Conductive and optical materials in Class 9.	Registered	2/13/2018
Hong Kong	CLEAROHM	301050533 2/13/2008	301050533 8/13/2008	01, 09	Coating solutions for fabricating conductive and optical materials; binder materials for protecting and improving adhesion of conductive or optical films; transfer sheets for forming transparent conductive or optical films on substrates or other objects; diluents and solvents for blending with	Registered	2/12/2018

**PATENT**

**REEL: 038295 FRAME: 0875**

Trademark Applications and Registrations							
Clearohm							
Country	Trademark	Application Number Application Date	Registration Number Registration Date	Class	Description of Services	Status	Next Renewal Date
Japan	CLEAROHM	2008-009936 2/13/2008	5364600 10/29/2010	01, 09, 17	<p>coating solutions for fabricating conductive and optical materials; washing and cleaning solutions for cleaning substrates before coating with coating solutions and cleaning production equipment used with coating solutions; photosensitizer, photoresist and etchant solutions for patterning conductive and optical films including conductive and optical films for use in thin-film transistors; toning and fixing solutions for stabilizing conductive or optical films; and developing solutions for conductive and optical films for use in thin-film transistors in Class 1; Conductive and optical materials in Class 9.</p> <p>Chemicals in the form of coating solutions for fabricating conductive and optical materials; Industrial binder preparations for protecting and improving adhesion of conductive or optical films; Diluents and solvents for blending with conductive and optical coatings in the nature of conductive and optical inks for fabricating conductive and optically active films; Chemical preparations for use in manufacturing processes for cleaning substrates before coating with coating solutions and cleaning production equipment used with coating solutions; Chemicals for use in patterning conductive and optical films, Photoresist for patterning conductive and optical films including conductive and optical films for use in thin-film transistors; Industrial etchant preparations for patterning conductive and optical films including conductive and optical films for use in thin-film transistors (chemical preparations); Industrial toning preparations for stabilizing conductive or optical films (chemical preparations); Industrial fixing preparations for stabilizing conductive or optical films (chemical</p>	Registered	10/29/2020



**Trademark Applications and Registrations**  
Clearohm

Country	Trademark	Application Number Application Date	Registration Number Registration Date	Class	Description of Services	Status	Next Renewal Date
Korea	CLEAROHM	40-2008-7444 2/18/2008	40-819704 4/13/2010	01, 17	<p>preparations); Developing solutions for conductive and optical films for use in thin-film transistors; Chemicals; Adhesives (not for stationery or household purposes)in Class 1; Optical apparatus and instruments; Phase modifiers; Electronic machines and instruments and their parts in Class 9; Adhesive transfer sheets for forming transparent conductive or optical films on substrates or other objects (Plastic basic products), Electrically conductive films; Films with optical effects in Class 17.</p> <p>Coating preparations for fabricating conductive and optical materials (industrial chemical preparations); industrial binder preparations for protecting and improving adhesion of conductive or optical films (industrial binder preparations for protecting and improving adhesion of conductive or optical films (industrial adhesives); diluents and solvents for blending with coating solutions for fabricating conductive and optical materials; washing and cleaning preparations for use in manufacturing processes for cleaning substrates before coating with coating solutions and cleaning production equipment used with coating solutions (chemical preparations); industrial sensitive emulsions for patterning conductive and optical films including conductive and optical films for use in thin-film transistors (chemical preparations); industrial sensitive agents for patterning conductive and optical films including conductive and optical films for use in thin-film transistors (chemical preparations); photoresist for patterning conductive and optical films including conductive and optical films for use in thin-film transistors; industrial etchant preparations for patterning conductive and optical</p>	Registered	4/13/2020

Trademark Applications and Registrations							
CLEAROHM							
Country	Trademark	Application Number Application Date	Registration Number Registration Date	Class	Description of Services	Status	Next Renewal Date
Singapore	CLEAROHM	T08/01671G 2/12/2008	T08/01671G 2/12/2008	01, 09	films including conductive and optical films for use in thin-film transistors (chemical preparations); industrial toning preparations for stabilizing conductive or optical films (chemical preparations); industrial fixing preparations for stabilizing conductive or optical films (chemical preparations); developing solutions for conductive and optical films for use in thin-film transistors in Class 1; Adhesive plastic transfer sheets for forming transparent conductive or optical films on substrates or other objects; conductive and optical materials are electrically conductive plastic films that may also be films that have optical effects such as polarizers, quarter-wave plates, and films that shift or match indexes of refraction in Class 17.	Registered	2/12/2018
Taiwan	CLEAROHM	97006464	1384852	01, 09	Coating solutions for fabricating conductive and optical materials; binder materials being chemicals for protecting and improving adhesion of conductive or optical films; coating solutions, namely, transfer sheets for forming transparent conductive or optical films on substrates or other objects; diluents and solvents for blending with coating solutions for fabricating conductive and optical materials; washing and cleaning solutions for cleaning substrates before coating with coating solutions and cleaning production equipment used with coating solutions; photosensitizer, photoresist and etchant solutions for patterning conductive and optical films including conductive and optical films for use in thin-film transistors; toning and fixing solutions for stabilizing conductive or optical films; and developing solutions for conductive and optical films for use in thin-film transistors in Class 1; Conductive and optical materials in Class 9.	Registered	10/31/2019

**Trademark Applications and Registrations  
Clearohm**

Country	Trademark	Application Number Application Date	Registration Number Registration Date	Class	Description of Services	Status	Next Renewal Date
United States	CLEAROHM	77/405099 2/25/2008	4168180 7/3/2012	01, 02, 09, 17	<p>fabricating conductive and optical materials; binder materials for protecting and improving adhesion of conductive or optical films; adhesive transfer sheets for forming transparent conductive or optical films on substrates or other objects; diluents and solvents for blending with coating solutions for fabricating conductive and optical materials; chemical preparations for use in manufacturing processes for cleaning production equipment used with coating solutions photosensitizer, photoresist and etchant solutions for patterning conductive and optical films in Class 1; Conductive and optical materials, namely, conductive films such as transparent conductors in Class 9.</p> <p>Chemical toning and fixing solutions for stabilizing conductive or optical film; chemical agents and additives for protection and improving adhesion of conductive or optical films, namely, polymeric coatings; chemical diluents and solvents for blending with conductive and optical coatings in the nature of conductive and optical inks for fabricating conductive and optically active films for fabricating conductive and optical materials in Class 1; Coating solutions consisting of conductive and optical coatings in the nature of conductive and optical inks for fabricating conductive and optical materials, namely, electrical conductors; binder materials, for protecting and improving adhesion of conductive or optical films, namely, fixatives for industrial use in the nature of a polymeric protective coating in Class 2; Conductive and optical materials, namely, electrical conductors in Class 9; Polymer films used for manufacturing electronic circuits; polymer films for electromagnetic radiation shielding in electronic products in Class 17.</p>	Registered	7/3/2022

Trademark Applications and Registrations Cambrios										
Seed No.	Country	Case Type	Trademark	Status	Filing Date	Application No.	Reg. Date	Reg. No.	Class	Goods
191137.201PCN	CN	MPR	CAMBRIOS	Registered	08/20/2013		08/20/2013	1199271	01 Int., 06 Int., 09 Int., 42 Int.	Manufacturing process agents, namely, of metal nanoparticles, suspensions of metal nanowires, and inorganic materials for use in the field of electronics, chemicals, and coatings; assemblages of materials, namely, particles made from metals, nanowires made of metal for use in the field of electronics, chemicals, and coatings.; Synthesized metals for use in electronic components and materials.; Nanostructures for use in electronic components and materials.; Scientific research and development services in the fields of nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering for use in the fields of electronics, optics, magnetics, biotechnology, medicine, industrial coatings and textiles.
191137.201PCT	EM	MPR	CAMBRIOS	Registered	08/20/2013		08/20/2013	1199271	01 Int., 06 Int., 09 Int., 42 Int.	Manufacturing process agents, namely, solutions of organic molecules, suspensions of metal nanoparticles, suspensions of metal nanowires, and inorganic materials for use in the field of electronics, chemicals, and coatings; assemblages of materials, namely, particles made from metals, nanowires made of metal for use in the field of electronics, chemicals, and coatings.; Synthesized metals for use in electronic components and materials.; Nanostructures for use in

SMRH:475816751.4



**Trademark Applications and Registrations  
Cambrios**

Seed No.	Country	Case Type	Trademark	Status	Filing Date	Application No.	Reg. Date	Reg. No.	Class	Goods
191137.201PKR	KR	MPR	CAMBRIOS	Registered	08/20/2013		08/20/2013	1199271	01 Int., 06 Int., 42 Int.	<p>engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering for use in the fields of electronics, optics, magnetics, biotechnology, medicine, industrial coatings and textiles.</p> <p>Manufacturing process chemical agents for manufacturing solutions of organic molecules, suspensions of metal nanoparticles, suspensions of metal nanowires, and inorganic materials for use in the field of electronics, chemicals, and coatings including organic and inorganic chemicals; Metalloids, namely, particles made from metals and nanowires made of metal for use in solutions containing organic and inorganic chemicals for use in the field of electronics and coatings. ; Common metals and their alloys for use in electronic components and materials; silver and its alloys. ; Scientific research and development services in the fields of nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering; development of new technology for others in the fields of</p>

**Trademark Applications and Registrations  
Cambrios**

Seed No.	Country	Case Type	Trademark	Status	Filing Date	Application No.	Reg. Date	Reg. No.	Class	Goods
191137.201PSG	SG	MPR	CAMBRIOS	Pending	05/14/2014	T1409632H			01 Int., 06 Int., 09 Int., 42 Int.	nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering for use in the fields of electronics, optics, magnetics, biotechnology, medicine, industrial coatings and textiles.  Manufacturing process agents, namely, solutions of organic molecules, suspensions of metal nanoparticles, suspensions of metal nanowires, and inorganic materials for use in the field of electronics, chemicals, and coatings; assemblages of materials, namely, particles made from metals, nanowires made of metal for use in the field of electronics, chemicals, and coatings.; Synthesized metals for use in electronic components and materials.; Nanostructures for use in electronic components and materials.; Scientific research and development services in the fields of nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering; development of new technology for others in the fields of nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein

Trademark Applications and Registrations Cambrios										
Seed No.	Country	Case Type	Trademark	Status	Filing Date	Application No.	Reg. Date	Reg. No.	Class	Goods
191137.201WP	WP	ORD	CAMBRIOS	Registered	08/20/2013	A0037571	08/20/2013	1199271	01 Int., 06 Int., 09 Int., 42 Int.	<p>engineering, materials science, chemical engineering, optical engineering and electrical engineering for use in the fields of electronics, optics, magnetics, biotechnology, medicine, industrial coatings and textiles.</p> <p>Manufacturing process agents including organic and inorganic chemicals, namely, solutions of organic molecules, suspensions of metal nanoparticles, suspensions of metal nanowires, and inorganic materials for use in the field of electronics, chemicals, and coatings; particles made from metals and nanowires made of metal for use in solutions containing organic and inorganic chemicals for use in the field of electronics and coatings.; Synthesized metals for use in electronic components and materials.; Nanostructures for use in fabricating conductive and optical materials for electronic components.; Scientific research and development services in the fields of nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering; development of new technology for others in the fields of nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering, for use in the fields of electronics, optics, magnetics, biotechnology, medicine, industrial coatings and textiles.</p>



**Trademark Applications and Registrations  
Cambrios**

Seed No.	Country	Case Type	Trademark	Status	Filing Date	Application No.	Reg. Date	Reg. No.	Class	Goods
191137.202TW	TW	ORD	CAMBRIOS	Registered	08/23/2013	102046751	10/01/2014	1669524	01 Int., 02 Int., 09 Int., 42 Int.	Chemical toning and fixing solutions for stabilizing conductive or optical film; chemical agents and additives for protection and improving adhesion of conductive or optical films; chemical diluents and solvents for blending with conductive and optical coatings in the nature of conductive and optical coating solutions for fabricating conductive and optically active films for fabricating conductive and optical materials. ; Coating solutions consisting of conductive and optical coatings in the nature of conductive and optical inks for fabricating conductive and optical materials, namely, electrical conductors; binder materials, for protecting and improving adhesion of conductive or optical films, namely, fixatives for industrial use in the nature of a polymeric protective coating. ; Conductive and optical materials, namely, electrical conductors. ; Scientific research and development services in the fields of nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering; development of new technology for others in the fields of nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering for use in the fields of electronics, optics, magnetics, biotechnology, medicine, industrial coatings and textiles.

**Trademark Applications and Registrations  
Cambrios**

Seed No.	Country	Case Type	Trademark	Status	Filing Date	Application No.	Reg. Date	Reg. No.	Class	Goods
191137.207HK	HK	ORD	CAMBRIOS	Registered	09/11/2013	302733741	05/05/2014	302733741	01 Int., 02 Int., 09 Int., 42 Int.	Chemical toning and fixing solutions for stabilizing conductive or optical film; chemical agents and additives for protection and improving adhesion of conductive or optical films, namely, polymeric coatings; chemical diluents and solvents for blending with conductive and optical coatings in the nature of conductive and optical inks for fabricating conductive and optically active films for fabricating conductive and optical materials. ; Coating solutions consisting of conductive and optical coatings in the nature of conductive and optical inks for fabricating conductive and optical materials, namely, electrical conductors; binder materials, for protecting and improving adhesion of conductive or optical films, namely, fixatives for industrial use in the nature of a polymeric protective coating. ; Conductive and optical materials, namely, electrical conductors. ; Scientific research and development services in the fields of nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering; development of new technology for others in the fields of nanotechnology, materials, biology, physics, chemistry, biotechnology, genetic engineering, protein engineering, materials science, chemical engineering, optical engineering and electrical engineering for use in the fields of electronics, optics, magnetics, biotechnology, medicine, industrial coatings and textiles.