

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

Assignment ID: PATI801411

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Cambrios Film Solutions Corporation	12/19/2024
<b>RECEIVING PARTY DATA</b>	
<b>Company Name:</b>	Pine Castle Investments Limited
<b>Street Address:</b>	Vistra Corporate Services Centre
<b>Internal Address:</b>	Wickhams Cay II, Road Town
<b>City:</b>	Tortola
<b>State/Country:</b>	VIRGIN ISLANDS, BRITISH
<b>Postal Code:</b>	VG1110
<b>PROPERTY NUMBERS Total: 82</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15871949
Application Number:	15877683
Application Number:	16012162
Application Number:	16026019
Application Number:	16030846
Application Number:	16136260
Application Number:	16226613
Application Number:	16283808
Application Number:	16373712
Application Number:	16398666
Application Number:	16416569
Application Number:	16426102
Application Number:	16441256
Application Number:	16454258
Application Number:	16580357
Application Number:	16583672
Application Number:	16674273
Application Number:	16747906
Application Number:	16787586

Property Type	Number
Application Number:	16854814
Application Number:	16859071
Application Number:	16934215
Application Number:	16941662
Application Number:	16943072
Application Number:	16944244
Application Number:	16983225
Application Number:	16994088
Application Number:	16998301
Application Number:	17030843
Application Number:	17062825
Application Number:	17157667
Application Number:	17347644
Application Number:	17394950
Application Number:	17600719
Application Number:	17600765
Application Number:	17695971
Application Number:	17979044
Application Number:	18322780
Application Number:	11504822
Application Number:	11766552
Application Number:	11871767
Application Number:	12098329
Application Number:	12098337
Application Number:	12106193
Application Number:	12380294
Application Number:	12712096
Application Number:	12905664
Application Number:	12960316
Application Number:	12969430
Application Number:	13007305
Application Number:	13021274
Application Number:	13040549
Application Number:	13069837
Application Number:	13206279
Application Number:	13211205
Application Number:	13535112
Application Number:	13651128

Property Type	Number
Application Number:	13668006
Application Number:	13791086
Application Number:	13801322
Application Number:	13839689
Application Number:	13840864
Application Number:	13934678
Application Number:	14109164
Application Number:	14181523
Application Number:	14247689
Application Number:	14260888
Application Number:	14281685
Application Number:	14378716
Application Number:	14460999
Application Number:	14664679
Application Number:	14684313
Application Number:	14703830
Application Number:	14746105
Application Number:	14795748
Application Number:	15234272
Application Number:	15292265
Application Number:	15343595
Application Number:	15415105
Application Number:	15523113
Application Number:	15682528
Application Number:	15691751

#### **CORRESPONDENCE DATA**

**Fax Number:** 2163733450

*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:** (216)654-0090

**Email:** docketing@cooperlegalgroup.com

**Correspondent Name:** Marcus A. Fischer

**Address Line 1:** 1388 Ridge Road, Unit 1

**Address Line 4:** Hinckley, OHIO 44233

**ATTORNEY DOCKET NUMBER:** CAMG102US

**NAME OF SUBMITTER:** Emily Arkutik

**SIGNATURE:** /Emily Arkutik/

**DATE SIGNED:** 02/04/2025

**Total Attachments: 7**

source=SignedAssignment#page1.tiff

source=SignedAssignment#page2.tiff

source=SignedAssignment#page3.tiff

source=SignedAssignment#page4.tiff

source=SignedAssignment#page5.tiff

source=SignedAssignment#page6.tiff

source=SignedAssignment#page7.tiff



## ASSIGNMENT

Whereas, Cambrios Film Solutions Corporation, a corporation of the British Virgin Islands, hereinafter referred to as "assignor", did obtain the entire right, title and interest in and to certain new and useful improvements in the attached Annex A, and whereas, Cambrios Film Solutions Corporation is the sole owner of said applications, and,

WHEREAS, Pine Castle Investments Limited, a company of the British Virgin Islands, having a place of business at Vistra Corporate Services Centre, Wickhams Cay II, Road Town, Tortola, VG1110, British Virgin Islands, hereinafter referred to as "assignee", is desirous of acquiring all right, title, and interest in, to, and under said improvements and inventions and patent rights therefor.

NOW, THEREFORE, be it known that, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, all right, title, and interest, in the United States, in, to and under said improvements and inventions and all patents, patent applications, patent rights, and inventors' certificates thereof, therefor, and therein, including without limitation said application for patent in the United States, all divisions and continuations thereof, all patents which may be granted thereon, all reissues and extensions thereof, all right to sue for past infringement thereunder, all patents which may be granted for said improvements and inventions by states or nations other than the United States, or by other authority, entity, or organization, and all applications therefor, have been and are hereby sold, assigned, transferred, and delivered unto assignee, its successors and assigns by the undersigned; and it is covenanted and agreed by the undersigned, and for executors, administrators, and legal representatives of the undersigned, that at assignee's request any and all applications, affidavits, assignments, and other instruments will be made, executed, and delivered as may be necessary, or desirable to secure for or vest in assignee, its successors or assigns, any improvement, inventions, right, title, interest, application, patent, patent right or other right or property covered by this assignment, and the United States Commissioner of Patents and Trademarks is hereby requested and authorized to issue any and all United States patents granted on any of said applications to assignee as owner of the entire right, title, and interest in, to, and under the same, and appropriately empowered officials of foreign countries are hereby authorized to issue any letters patent granted on any of said applications to assignee as owner of the entire right, title and interest in, to, and under the same.

The undersigned hereby grant the firm of Cooper Legal Group LLC the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document. IN WITNESS WHEREOF, this assignment has been executed below by the undersigned:

Executed this 19th day of December, 2024.

Cambrios Film Solutions Corporation

X 

By Michael Chao-Juei Chiang

Title: Chairman of Cambrios Film Solutions Corporation

**Annex A**



Application Serial Number	Filing Date	Patent Number	Issue Date	Attorney Docket Number	Title
11/504,822	8/14/2006	8,049,333	11/1/2011	CB005-USI	TRANSPARENT CONDUCTORS COMPRISING METAL NANOWIRES
11/766,552	6/21/2006	8,454,721	6/4/2013	CB003-USI	METHODS OF CONTROLLING NANOSTRUCTURE FORMATIONS AND SHAPES
11/871,767	10/12/2007	8,094,247	1/10/2012	CB009-USI	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF
12/098,329	4/4/2008	9,899,123	2/20/2018	CB005-01-USI	NANOWIRES-BASED TRANSPARENT CONDUCTORS
12/098,337	4/4/2008	8,865,027	10/21/2014	CB005-02-USI	NANOWIRES-BASED TRANSPARENT CONDUCTORS
12/106,193	4/18/2008	8,018,563	9/13/2011	CB012-USI	COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME
12/380,294	2/25/2009	8,815,126	8/26/2014	CB018-USI	Method and composition for screen printing of conductive features
12/712,096	2/24/2010	8,018,568	9/13/2011	CB009-01-USI	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF
12/905,664	10/15/2010	8,760,606	6/24/2014	CB009-02-USI	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF
12/960,316	12/3/2010	9,586,816	3/7/2017	CB019-USI	NANOSTRUCTURE-BASED TRANSPARENT CONDUCTORS HAVING INCREASED HAZE AND DEVICES COMPRISING THE SAME
12/969,430	12/15/2010	8,618,531	12/31/2013	CB005-03-USI	TRANSPARENT CONDUCTORS COMPRISING METAL NANOWIRES
13/007,305	1/14/2011	10,026,518	7/17/2018	CB020-USI	LOW-HAZE TRANSPARENT CONDUCTORS
13/021,274	2/4/2011	9,534,124	1/3/2017	CB021-USI	PHOTOSENSITIVE INK COMPOSITIONS AND TRANSPARENT CONDUCTORS AND METHOD OF USING THE SAME

Annex A

Application Serial Number	Filing Date	Patent Number	Issue Date	Attorney Docket Number	Title
13/040,549	3/4/2011	8,709,125	4/29/2014	CB003-01-USI	METHODS OF CONTROLLING NANOSTRUCTURE FORMATIONS AND SHAPES
13/069,837	3/23/2011	9,023,217	5/5/2015	CB022-USI	ETCH PATTERNING OF NANOSTRUCTURE TRANSPARENT CONDUCTORS
13/206,279	8/9/2011	10,244,637	3/26/2019	CB012-01-USI	COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME
13/211,205	8/16/2011	8,174,667	5/8/2012	CB009-03-USI	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF
13/535,112	6/27/2012	9,573,163	2/21/2017	CB027-USI	ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS
13/651,128	10/12/2012	8,637,859	1/28/2014	CB031-USI	OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES
13/668,006	11/2/2012	10,168,451	1/1/2019	CB029-USI	METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTIVE FILMS AND TOUCH PANELS MADE OF THE SAME
13/791,086	3/8/2013	8,957,322	2/17/2015	CB030-USI	CONDUCTIVE FILMS HAVING LOW-VISIBILITY PATTERNS AND METHODS OF PRODUCING THE SAME
13/801,322	3/13/2013	9,568,646	2/14/2017	CB029-01-USI	METHODS FOR REDUCING DIFFUSE REFLECTION OF NANOSTRUCTURE-BASED TRANSPARENT CONDUCTIVE FILMS AND TOUCH PANELS MADE OF THE SAME
13/839,689	3/15/2013	9,490,048	11/8/2016	CB032-USI	ELECTRICAL CONTACTS IN LAYERED STRUCTURES
13/840,864	3/15/2013	10,720,257	7/21/2020	CB037-USI	METHODS TO INCORPORATE SILVER NANOWIRE-BASED TRANSPARENT CONDUCTORS IN ELECTRONIC DEVICES
13/934,678	7/3/2013	9,672,950	6/6/2017	CB020-01-USI	LOW-HAZE TRANSPARENT CONDUCTORS

**Annex A**Legal  
Seal

Application Serial Number	Filing Date	Patent Number	Issue Date	Attorney Docket Number	Title
14/109,164	12/17/2013	9,076,988	7/7/2015	CB031-01-USI	OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES
14/181,523	2/14/2014	10,971,277	4/6/2021	CB037-01-USI	METHODS TO INCORPORATE SILVER NANOWIRE-BASED TRANSPARENT CONDUCTORS IN ELECTRONIC DEVICES
14/247,689	4/8/2014	9,440,291	9/13/2016	CB003-02-USI	METHODS OF CONTROLLING NANOSTRUCTURE FORMATIONS AND SHAPES
14/260,888	4/24/2014	9,763,313	9/12/2017	CB040-USI	CONDUCTIVE NANOSTRUCTURE-BASED FILMS WITH IMPROVED ESD PERFORMANCE
14/281,685	5/19/2014	10,749,048	8/18/2020	CB009-04-USI	NANOWIRE-BASED TRANSPARENT CONDUCTORS AND APPLICATIONS THEREOF
14/378,716	8/14/2014	9,776,209	10/03/2017	CB049- PCTUSI	TRANSPARENT ELECTRICALLY CONDUCTIVE SUBSTRATE AND MANUFACTURING METHOD THEREOF
14/460,999	8/15/2014	9,759,846	9/12/2017	CB042-USI	SILVER NANOSTRUCTURE- BASED OPTICAL STACKS AND TOUCH SENSORS WITH UV PROTECTION
14/664,679	3/20/2015	10,854,350	12/1/2020	CB044-USI	LIGHT STABILITY OF NANOWIRE-BASED TRANSPARENT CONDUCTORS
14/684,313	4/10/2015	10,081,058	9/25/2018	CB045-USI	METHODS OF CONTROLLING NANOWIRE MORPHOLOGY
14/703,830	5/4/2015	9,860,993	1/2/2018	CB025-01-USI	GRID AND NANOSTRUCTURE TRANSPARENT CONDUCTOR FOR LOW SHEET RESISTANCE APPLICATIONS
14/746,105	6/22/2015	9,559,335	1/31/2017	CB031-02-USI	OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES
14/795,748	7/9/2015	9,801,287	10/24/2017	CB046-USI	ELECTRICAL CONTACTS IN LAYERED STRUCTURES
15/234,272	8/11/2016	10,195,670	2/5/2019	CB003-03-USI	METHODS OF CONTROLLING NANOSTRUCTURE FORMATIONS AND SHAPES



**Annex A**

Application Serial Number	Filing Date	Patent Number	Issue Date	Attorney Docket Number	Title
15/292,265	10/13/2016	10,324,352	6/18/2019	CB032-01-USI	ELECTRICAL CONTACTS IN LAYERED STRUCTURES
15/343,595	6/27/2012	10,307,786	6/4/2019	CB027-01-USI	ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS
15/415,105	1/25/2017	9,905,763	2/27/2018	CB031-03-USI	OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES
15/523,113	4/28/2017	10,040,956	8/7/2018	CB041- PCTUSI	SHORT-CHAIN FLUOROSURFACTANTS WITH IODIDE ADDITIVES FOR FORMING SILVER NANOWIRE-BASED TRANSPARENT CONDUCTIVE FILMS
15/682,528	8/21/2017	10,627,554	4/21/2020	CB042-01-USI	SILVER NANOSTRUCTURE- BASED OPTICAL STACKS AND TOUCH SENSORS WITH UV PROTECTION
15/691,751	8/31/2017	10,057,991	8/21/2018	CB046-01-USI	ELECTRICAL CONTACTS IN LAYERED STRUCTURES
15/871,949	1/15/2018	10,580,549	3/3/2020	CB005-04-USI	NANOWIRES-BASED TRANSPARENT CONDUCTORS
15/877,683	1/23/2018	10,367,141	7/30/2019	CB031-04-USI	OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES
16/012,162	6/19/2018	10,897,022	1/19/2021	A170014-01- CAMH-USI	ORGANIC SOLAR MODULE AND/OR FABRICATION METHOD
16/026,019	7/2/2018	10,734,129	8/4/2020	CB020-02-USI	LOW-HAZE TRANSPARENT CONDUCTORS
16/030,846	7/9/2018	10,465,081	11/5/2019	CB041-01- PCTUSI	SHORT-CHAIN FLUOROSURFACTANTS WITH IODIDE ADDITIVES FOR FORMING SILVER NANOWIRE-BASED TRANSPARENT CONDUCTIVE FILMS
16/136,260	9/20/2018	10,967,432	4/6/2021	CB045-01-USI	METHODS OF CONTROLLING NANOWIRE MORPHOLOGY
16/226,613	12/19/2018	10,875,098	12/29/2020	CB003-04-USI	METHODS OF CONTROLLING NANOSTRUCTURE FORMATIONS AND SHAPES
16/283,808	2/24/2019	11,224,130	1/11/2022	CB012-02-USI	COMPOSITE TRANSPARENT CONDUCTORS AND METHODS OF FORMING THE SAME
16/373,712	4/3/2019	11,117,163	9/14/2021	CB027-02-USI	ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS

Annex A

Application Serial Number	Filing Date	Patent Number	Issue Date	Attorney Docket Number	Title
16/398,666	4/30/2019	10,852,614	12/1/2020	CB032-02-USI	METHOD OF FORMING ELECTRICAL CONTACTS IN LAYERED STRUCTURES
16/416,569	5/20/2019	11,020,802	6/1/2021	CB003-05-USI	METHODS OF CONTROLLING NANOSTRUCTURE FORMATIONS AND SHAPES
16/426,102	5/30/2019	10,840,275	11/17/2020	A180008-CAMH-USI	DOUBLE-SIDED ELECTRODE STRUCTURE AND PATTERNING PROCESS THEREOF
16/441,256	6/14/2019	10,642,436	5/5/2020	A180009-CAMH-USI	TOUCH SENSING PANEL AND MANUFACTURING METHOD THEREOF
16/454,258	6/27/2019	10,636,970	4/28/2020	CB031-05-USI	OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES
16/580,357	9/24/2019	11,432,378	8/30/2022	A170009-CAMH-USI	PLANAR HEATING STRUCTURE
16/583,672	9/26/2019	10,793,730	10/6/2020	CB041-02-PCTUSI	SHORT-CHAIN FLUOROSURFACTANTS WITH IODIDE ADDITIVES FOR FORMING SILVER NANOWIRE-BASED TRANSPARENT CONDUCTIVE FILMS
16/674,273	11/5/2019	11,061,501	7/13/2021	A190008-CAMH-USI	TOUCH PANEL AND MANUFACTURING METHOD THEREOF
16/747,906	1/21/2020	11,328,834	5/10/2022	CB005-05-USI	NANOWIRES-BASED TRANSPARENT CONDUCTORS
16/787,586	2/11/2020	10,963,118	3/30/2021	A190001-CAMH-USI	ELECTRODE STRUCTURE AND TOUCH PANEL THEREOF
16/854,814	4/21/2020	11,137,863	10/5/2021	CB042-02-USI	SILVER NANOSTRUCTURE-BASED OPTICAL STACKS AND TOUCH SENSORS WITH UV PROTECTION
16/859,071	4/27/2020	10,964,890	3/30/2021	CB031-06-USI	OPTO-ELECTRICAL DEVICES INCORPORATING METAL NANOWIRES
16/934,215	7/21/2020	11,029,772	6/8/2021	A200018-CAMH-USI	TRANSPARENT CONDUCTIVE LAMINATED STRUCTURE INCLUDING A FIRST CONDUCTIVE FILM AND FIRST ADHESIVE LAYER DISPOSED ON THE FIRST CONDUCTIVE FILM AND TOUCH PANEL
16/941,662	7/29/2020	11,249,572	2/15/2022	A200005-CAMH-USI	TOUCH PANEL

Annex A

Application Serial Number	Filing Date	Patent Number	Issue Date	Attorney Docket Number	Title
16/943,072	7/30/2020	11,249,605	2/15/2022	A190024- CAMH-USI	TOUCH PANEL AND MANUFACTURING METHOD THEREOF
16/944,244	7/31/2020	10,902,974	1/26/2021	A200026- CAMH-USI	TRANSPARENT CONDUCTIVE FILM
16/983,225	8/3/2020	11,733,731	8/22/2023	A200016- CAMH-USI	CONDUCTIVE LAMINATED STRUCTURE AND FOLDABLE ELECTRONIC DEVICE
16/994,088	8/14/2020	11,054,952	7/6/2021	A190023- CAMH-USI	TOUCH PANEL AND MANUFACTURING METHOD THEREOF
16/998,301	8/20/2020	11,204,672	12/21/2021	A190022- CAMH-USI	TOUCH PANEL AND MANUFACTURING METHOD THEREOF
17/030,843	9/24/2020	11,479,027	10/25/2022	A190033- CAMH-USI	PHOTOSENSITIVE ELECTRICALLY CONDUCTIVE STRUCTURE AND TOUCH SENSOR
17/062,825	10/5/2020	12/139,620	11/12/2024	CB041-03- PCTUSI	SHORT-CHAIN FLUOROSURFACTANTS WITH IODIDE ADDITIVES FOR FORMING SILVER NANOWIRE-BASED TRANSPARENT CONDUCTIVE FILMS
17/157,667	1/25/2021	11,227,703	1/18/2022	A200026-01- CAMH-USI	TRANSPARENT CONDUCTIVE FILM
17/347,644	6/15/2021	11,524,484	12/13/2022	A210002- CAMH-USI	TRANSPARENT HEAT- INSULATING FILM
17/394,950	8/5/2021	11,697,130	7/11/2023	CB027-03-US1	ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS
17/600,719	10/1/2021			A190014- CAMH- PCTUSI	CONDUCTIVE NANOSTRUCTURE PURIFICATION
17/600,765	10/1/2021	12,094,623	9/17/2024	A190018- CAMH- PCTUSI	THIN ELECTRICALLY CONDUCTIVE FILM
17/695,971	3/16/2022			A200089-TL- USI	STRETCH-DEFORMING ELECTRODE AND BIOLOGICAL SENSING SYSTEM
17/979,044	11/2/2022			A220007- CAMH-USI	TRANSPARENT CONDUCTIVE FILM
18/322,780	05/24/2023	12,023,708	7/2/2024	CB027-04-US1	ANISOTROPY REDUCTION IN COATING OF CONDUCTIVE FILMS