

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6566195

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST	
CONVEYING PARTY DATA		
Name		Execution Date
PALM TREE CAPITAL MANAGEMENT, LP, AS COLLATERAL AGENT		02/22/2021
RECEIVING PARTY DATA		
Name:	C3 NANO, INC.	
Street Address:	3988 TRUST WAY	
City:	HAYWARD	
State/Country:	CALIFORNIA	
Postal Code:	94545	
PROPERTY NUMBERS Total: 56		
Property Type	Number	
Patent Number:	10029916	
Patent Number:	9920207	
Patent Number:	10781824	
Patent Number:	10020807	
Patent Number:	9183968	
Patent Number:	9150746	
Patent Number:	9447301	
Patent Number:	10100213	
Patent Number:	10870772	
Patent Number:	10738212	
Patent Number:	9530534	
Patent Number:	10147512	
Patent Number:	10902965	
Patent Number:	10714230	
Patent Number:	10438714	
Application Number:	16018889	
Application Number:	61684409	
Application Number:	16994519	
Application Number:	16001472	
Application Number:	13777802	

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Property Type	Number
Application Number:	14087669
Application Number:	61978607
Application Number:	14680390
Application Number:	16952372
Application Number:	14577669
Application Number:	62059376
Application Number:	62065314
Application Number:	14627400
Application Number:	62093294
Application Number:	62142870
Application Number:	15354733
Application Number:	17132327
Application Number:	62408371
Application Number:	62427348
Application Number:	15730053
Application Number:	62595281
Application Number:	16549204
Application Number:	62674842
Application Number:	62751788
Application Number:	16417692
Application Number:	16259302
Application Number:	62936681
Application Number:	16950246
Application Number:	63059564
PCT Number:	US2013046866
PCT Number:	US2014017652
PCT Number:	US2014065685
PCT Number:	US2015042203
PCT Number:	US2015053681
PCT Number:	US2015055768
PCT Number:	US2016024627
PCT Number:	US2016064558
PCT Number:	US2017056134
PCT Number:	US2018063995
PCT Number:	US2020015218
PCT Number:	US2020060876

CORRESPONDENCE DATA

Fax Number:

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: 4153914800

Email: TM@CPDB.COM

Correspondent Name: KAREN S. FRANK

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Address Line 4: SAN FRANCISCO, CALIFORNIA 94104

NAME OF SUBMITTER:	KAREN S. FRANK
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SIGNATURE:	/karen s frank/
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DATE SIGNED:	02/23/2021
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Total Attachments: 29

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**TERMINATION AND RELEASE OF
INTELLECTUAL PROPERTY SECURITY AGREEMENT**

This Termination and Release of Intellectual Property Security Agreement (this “IP Release”) is made as of February 22, 2021, by **PALM TREE CAPITAL MANAGEMENT, LP** in its capacity as collateral agent for itself and the other Secured Parties (as defined in the Security Agreement referred to below) (in such capacity, the “Collateral Agent”), and C3 NANO, INC., a Delaware corporation (“Grantor”).

WHEREAS, pursuant to that certain Security Agreement, dated as of January 20, 2021 (as amended, supplemented and/or otherwise modified, the “Security Agreement”), by and between the Grantor and Collateral Agent, for the benefit of the Secured Parties, a security interest in all of Grantor’s right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral was granted by the Grantor to the Collateral Agent for the benefit of the Secured Parties. Capitalized terms used herein but not otherwise defined herein shall have the meanings set forth in the Security Agreement.

WHEREAS, pursuant to that certain Intellectual Property Security Agreement, dated as of January 20, 2021 (the “IP Security Agreement”), the Grantor granted and pledged to the Collateral Agent, for the benefit of the Secured Parties, a security interest (the “Security Interest”) in all of Grantor’s right, title and interest in, to and under its Intellectual Property (including without limitation those Copyrights, Patents and Trademarks listed on Exhibits A, B and C thereto), and including without limitation all proceeds thereof (such as, by way of example but not by way of limitation, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding thereto through the world and all re-issues, divisions, continuations, renewals, extensions and continuations-in-part thereof (but excluding any Excluded Assets) and the Intellectual Property Licenses (the “Copyright, Patent and Trademark Collateral”);

WHEREAS, the IP Security Agreement was recorded with the Patent Division of the United States Patent and Trademark Office on January 21, 2021 at Reel 055060, Frame 0840 for the Patents listed on Exhibit B attached hereto;

WHEREAS, the IP Security Agreement was recorded with the Trademark Division of the United States Patent and Trademark Office on January 21, 2021 at Reel 007166, Frame 0657 for the Trademarks listed on Exhibit C attached hereto;

WHEREAS, the Grantor has requested that the Collateral Agent execute this IP Release in order to terminate and release the Collateral Agent’s Security Interest in the Copyright, Patent and Trademark Collateral.

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged:

1. Release of Lien. The Collateral Agent hereby terminates the IP Security Agreement and hereby terminates, cancels and releases the Security Interest and all other liens and security interests that it has in, to and under the Copyright, Patent and

Trademark Collateral including, without limitation, (a) those Patent registrations and applications referred to on Exhibit B attached hereto and all reissues, continuations, divisions, continuations-in-part, renewals or extensions thereof, and (b) all Trademark registrations and applications referred to on Exhibit C attached hereto and all extensions or renewals thereof, all goodwill associated therewith or symbolized thereby, all other assets, rights and interests that uniquely reflect or embody such goodwill and all renewals of the foregoing.

2. Authorization to Record. The Collateral Agent authorizes and requests that the United States Patent and Trademark Office and any applicable government officer record this IP Release.

3. Further Assurances. The Collateral Agent agrees to take all further actions and provide to Grantor, their successors, assigns or other legal representatives, all such cooperation and assistance (including, without limitation, the execution and delivery of documents or other instruments), reasonably requested by Grantor to more fully and effectively effectuate the purposes of this IP Release, at Grantor's sole cost and expense, and without representation or warranty by the Collateral Agent.

4. Governing Law. This IP Release is made under and governed by the laws of the State of New York applicable to contracts made and to be performed entirely within such State, without regard to conflicts of laws principles.

This IP Release may be executed in any number of separate counterparts, each of which shall, collectively and separately, constitute one agreement.

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IN WITNESS WHEREOF, the undersigned has caused this IP Release to be duly executed as of the date first written above.

**PALM TREE CAPITAL
MANAGEMENT, LP,**
as Collateral Agent

By: Jeff Nikora
Name: Jeff Nikora
Title: General Partner

EXHIBIT A

Copyrights

None.

18646.001 4847-0651-9772.1

DB1/ 119036590.2

EXHIBIT B

Patents

(See attached)

18646.001 4847-0651-9772.1

DB1/ 119036590.2

DARDI & HERBERT, PLLC
Client/Matter Numbers

CLIENT CONFIDENTIAL
Updated: 1/19/2021

<u>File No.</u>	<u>Matter</u>	<u>Inventor</u>	<u>Serial No.</u> (Filing Date) Publication No. (Pub'l'n Date)	<u>Patent No.</u> (Issued)	<u>Priority</u>	<u>Status</u>
5074.01-US-01	Metal Nanowire Networks and Transparent Conductive Material	Ajay Virkar, Ying-Syi Li, Melburne C. LeMieux	13/530,822 (06-22-2012) 2013/0341074 (12-26-13)	10,029,916 (07-24-2018)	None	Issued.
5074.01-US-02	Metal Nanowire Networks and Transparent Conductive Material (Div)	Ajay Virkar, Ying-Syi Li, Melburne C. LeMieux	16,018,889 (06-26-2018) 2018/0297840 (10-18-2018)		None	Final OA 8/4/20; Notice of Appeal filed 11/4/20.
5074.02-US-01	Transparent Conductive Films with Carbon Nanotubes, Inks to Form the Films and Corresponding Processes	Melburne C. LeMieux; Ajay Virkar; Yung-Yu Huang	13/625,184 (09-24-2012) 2014/0087164 (03/27/2014) 2014/0302296 (10/9/2014)		None	ABANDONED 11/14/16.
5074.02-WO-01	Transparent Conductive Films with Carbon Nanotubes, Inks to Form the Films and Corresponding Processes	Melburne C. LeMieux; Ajay Virkar; Yung-Yu Huang	PCT/US2013/060476 (9/18/2013) WO2014/047219 (3/27/2014)		13/625,184	Abandoned
5074.04-US-01	Nanomaterial Based Elastomeric Films for Stretchable Conductive Films	LeMieux et al.	61/684,512 (08-17-2012)		None	Expired/Abandoned
5074.05-TW-01	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Melburne C. Lemieux	102122029 (6/20/2013) 201405583 (2/1/2014)	1627640 (06-21-2018)	13/530,822 61/684,409	Annuity fees due annually 6-20
5074.05-US-01	Metal Nanowire Films with Good Conductivity and Transmission with Low Haze	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Melburne C. Lemieux	61,684,409 (08-17-2012)		None	Perfectd
5074.05-US-02	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar; Ying-Syi Li; Xiqiang Yang; Melburne C. Lemieux	13/664,159 (10-30-2012) 2013/0342221 12/26/2013	9,920,207 (03-20-2018)	13/530,822 61/684,409	Issued.

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5074.05-US-03 (Div.)	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar, Ying-Syi Li; Xiqiang Yang; Melburne C. Lemieux	15/886,201 (02-01-2018) 2018-0155558 (06-07-2018)	10,781,824 (09-22-2020)	13/530,822 61/684,409 13/664,159	Issued. Request Certificate of Corr. 10/28/20.
5074.05-US-04 (Cont.)	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar, Ying-Syi Li; Xiqiang Yang; Melburne C. Lemieux	16,994,519 (08-14-2020) 2020-0377744 (12-03-2020)		13/530,822 61/684,409 13/664,159 15/886,201	Filing Receipt 8/24/20.
5074.05-WO-01	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar, Xiqiang Yang; Ying-Syi Li; Melburne C. Lemieux	PCT/US2013/046866 (6/20/2013) (WO2013/192437 (12/27/2013))		13/530,822 13/664,159 61/684,409	National phase entered.
5074.05-WO-CN	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar, Xiqiang Yang; Ying-Syi Li; Melburne C. Lemieux	201380033141.7 (6/20/2013) CN104685577A (6/3/2015)	ZL201380033 141.7 (01/16/2018)	PCT/US2013/0 46866	Annual annuities due 6/20 Expires 1-19-2033
5074.05-WO-EP	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar, Xiqiang Yang; Ying-Syi Li; Melburne C. Lemieux	13806288.0 (6/20/2013) 2 864 990 (04/29/2015)	2864990 (10-02-2019)	PCT/US2013/0 46866	Annuity fees due annually 6/20 in DE, FR and GB. Opposition period end date: 7-2- 2020 Expires: 6-20-2023
5074.05-WO-EP-02	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar, Xiqiang Yang; Ying-Syi Li; Melburne C. Lemieux	19200682.3 (10-01-2019) 3611231 (02-19-2020)		13806288.0	Annuity fees due annually 6-20 Response to Search Filed: 8-19- 2020
5074.05-WO-EP-HK- 02	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar, Xiqiang Yang; Ying-Syi Li; Melburne C. Lemieux	42020013168.8 (08-04-2020) 40023116 (11-27-2020)		19200682.3	Annuities due annually **

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5074.05-WO-JP	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Melbourne C. Lemieux	2015-518580 (6/20/2013) 2015-530693 (10/15/2015)	6392213 (08/31/2018)	PCT/US2013/0 46866	Annuitiy fees due annually 8/31 Expires: 6-20-2033
5074.05-WO-KR	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Melbourne C. Lemieux	10-2015-7001771 (6/20/2013) KR201500408654 (04-15-2015)	10-2027623 (09-25-2019)	PCT/US2013/0 46866	Annuitiy fees due annually 9-25. Expires: 6-20-2033.
5074.05-WO-KR-02	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Melbourne C. Lemieux	10-2019-7028001 (09-24-2019)	10-2143963 (08-06-2020)	10-2015- 7001771	Annuitiy fees due annually 8-6 Expires: 6-20-2033
5074.05-WO-KR-03	Metal Nanostructured Networks and Transparent Conductive Material	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Melbourne C. Lemieux	10-2020-7022803 (08-06-2020)		10-2019- 7028001	Response filed: 12-18-2020
5074.06-TW-01	Fused Metal Nanostructured Networks, Fusing Solutions with Reducing Agents and Methods for Forming Metal Networks	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Dennis McKean; Melbourne C. Lemieux	103106126 (2/24/2014) TW2014464914 (12-16-2014)	1624357 (05-21-2018)	13/777,802	Annuitiy fees due annually 5-20 Expires 2-23-2034
5074.06-US-01	Fused Metal Nanostructured Networks, Fusing Solutions with Reducing Agents and Methods for Forming Metal Networks	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Dennis McKean; Melbourne C. Lemieux	13/777,802 (02-26-2013) 2014/0238833 (08/28/2014)	10,020,807 (07-10-2018)	None	Issued. On there twice, reg and app
5074.06-US-02	Fused Metal Nanostructured Networks, Fusing Solutions with Reducing Agents and Methods for Forming Metal Networks (Div)	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Dennis McKean; Melbourne C. Lemieux	16,001,472 (06-06-2018) 2018-0287608 (10-04-2018)		13/777,802	Final OA 9/25/20; Amndt AF filed 12/23/20.

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5074.06-WO-01	Fused Metal Nanostructured Networks and Fusing Solutions with Reducing Agents	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Dennis McKean; Melburne C. LeMieux	PT/US2014/017652 (2/21/2014) WO2014/133890 (9/4/2014)		13/777,802	National phase entered
5074.06-WO-CN	Fused Metal Nanostructured Networks and Fusing Solutions with Reducing Agents	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Dennis McKean; Melburne C. LeMieux	201480018434.0 (2/21/2014) CN105102555A (11/25/2015)	ZL 20148001873 4.0 (02-16-2018)	PCT/US2014/0 17652	Annuity fees due annually 2/21.
5074.06-WO-CN-02	Fused Metal Nanostructured Networks and Fusing Solutions with Reducing Agents	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Dennis McKean; Melburne C. LeMieux	201810047475.4 (01-18-2018) CN108357168A (08-03-2018)		201480018434. 0	Response Filed October 2020
5074.06-WO-EP	Fused Metal Nanostructured Networks and Fusing Solutions with Reducing Agents	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Dennis McKean; Melburne C. LeMieux	14757422.2 (2/21/2014) 2961801 (1/6/2016)		PCT/US2014/0 17652	Annuity fees due annually 2/21 Response filed 6-29-2020
5074.06-WO-JP	Fused Metal Nanostructured Networks and Fusing Solutions with Reducing Agents	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Dennis McKean; Melburne C. LeMieux	2015-558993 (2/21/2014) JP2016519206A (06-30-2016)	6387021 (8/17/2018)	PCT/US2014/0 17652	Annuity fees due annually 8/17 Expires: 2-21-2034
5074.06-WO-JP-02	Fused Metal Nanostructured Networks and Fusing Solutions with Reducing Agents	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Dennis McKean; Melburne C. LeMieux	2018-151356 (08-10-2018) 2019-007085 (01-17-2019)	6657336 (02-07-2020)	2015-558993	Annuity fees due annually 2-7 Expires 2-21-2034
5074.06-WO-KR	Fused Metal Nanostructured Networks and Fusing Solutions with Reducing Agents	Ajay Virkar; Xiqiang Yang; Ying-Syi Li; Dennis McKean; Melburne C. LeMieux	10-2015-7026866 (2/21/2014) KR201600104064 (01-27-2016)	10-1888734 (08-08-2018)	PCT/US2014/0 17652	Annuity fees due annually 8-8. Expires: 2-21-2034

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5074.07-TW-01	Transparent Conductive Coatings Based on Metal Nanowires and Polymer Binders, Solution Processing Thereof, and Patterning Approaches	Xiqiang Yang, Ying-Syi Li, Yung-Yu Huang, Chris Scully, Clifford M. Morris, Ajay Virkar	103140507 (11/21/2014) 201525086 (7-1-2015)	ISS3069 (10-11-2016)	14/087,669	Annuity fees due annually 10/15/16 Expires 11-20-2034
5074.07-US-01	Transparent Conductive Coatings Based on Metal Nanowires and Polymer Binders, Solution Processing Thereof, and Patterning Approaches	Xiqiang Yang, Ying-Syi Li, Yung-Yu Huang, Christopher S. Scully, Clifford M. Morris, Ajay Virkar	14/087,669 (11/22/2013) 2015/0144380 (5/28/2015)		None	Office Action rec'd 1/17/20; Notice of Appeal filed 4/17/20; Appeal Brief filed 9/17/20.
5074.07-WO-01	Transparent Conductive Coatings Based on Metal Nanowires	Xiqiang Yang, Ying-Syi Li, Yung-Yu Huang, Christopher S. Scully, Clifford M. Morris, Ajay Virkar	PCT/US2014/065685 (11/14/2014) WO 2015/077145 (05/28/2015)		14/087,669	National phase entered
5074.07-WO-CN	Transparent Conductive Coatings Based on Metal Nanowires	Xiqiang Yang, Ying-Syi Li, Yung-Yu Huang, Christopher S. Scully, Clifford M. Morris, Ajay Virkar	201480071606.2 (11/14/2014) CN105874889A (08/17/2016)	ZL201480071606.2 (07/16/2019)	PCT/US2014/065685	Annuity fees due annually 11-14 Expires: 11/13/2034
5074.07-WO-CN-02	Transparent Conductive Coatings Based on Metal Nanowires	Xiqiang Yang, Ying-Syi Li, Yung-Yu Huang, Christopher S. Scully, Clifford M. Morris, Ajay Virkar	201910542227.1 (06-21-2019) CN110204950A (09-06-2019)		201480071606.2	Voluntary Amendment deadline: 12-27-2019 Hong Kong Deadline: 3-6-2020
5074.07-WO-CN-HK-02	Transparent Conductive Coatings Based on Metal Nanowires	Xiqiang Yang, Ying-Syi Li, Yung-Yu Huang, Christopher S. Scully, Clifford M. Morris, Ajay Virkar	42020003270.4 (02-25-2020) 400131664 (08-07-2020)		201910542227.1	Annuity fees due annually 11-14
5074.07-WO-EP	Transparent Conductive Coatings Based on Metal Nanowires	Xiqiang Yang, Ying-Syi Li, Yung-Yu Huang, Christopher S. Scully, Clifford M. Morris, Ajay Virkar	14863676.4 (11/14/2014) 3072373 (09/28/2016)		PCT/US2014/065685	Annuity fees due annually 11/14. Response filed: 8-12-2020

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5074.07-WO-JP	Transparent Conductive Coatings Based on Metal Nanowires	Xiqiang Yang, Ying-Syi Li, Yung-Yu Huang, Christopher S. Scully, Clifford M. Morris, Ajay Virkar	2016-533161 (11-14-2014) 2017-505509 (02-16-2017)	6644684 (01-10-2020)	PCT/US2014/0 65685	Annuity fees due annually 1-10 Expires: 11-14-2034
5074.07-WO-JP-02	Transparent Conductive Coatings Based on Metal Nanowires	Xiqiang Yang, Ying-Syi Li, Yung-Yu Huang, Christopher S. Scully, Clifford M. Morris, Ajay Virkar	2020-001550 (01-08-2020) 2020-074310 (05-14-2020)		2016-533161	Exam Requested January 8, 2020
5074.07-WO-KR	Transparent Conductive Coatings Based on Metal Nanowires	Xiqiang Yang, Ying-Syi Li, Yung-Yu Huang, Christopher S. Scully, Clifford M. Morris, Ajay Virkar	10-2016-7016609 (11-14-2014)		PCT/US2014/0 65685	Response filed 12-18-20
5074.09-US-01	Formable Transparent Conductive Films with Metal Nanowires	Yu Kambe, Yung-Yu Huang, Christopher S. Scully, Xiqiang Yang, Ajay Virkar	61/978,607 (04-11-2014)		None	Perfect Provisional Application deadline 4/11/15 - Provisional Application filed 4/11/14
5074.09-US-02	Formable Transparent Conductive Films with Metal Nanowires	Yu Kambe, Yung-Yu Huang, Christopher S. Scully, Xiqiang Yang, Ajay Virkar	14/680,390 (04-07-2015)		61/978,607	Appeal No. 2020-006179 Appeal Docketing 9/3/20.
5074.11-TW-01	Metal Nanowire Inks for the Formation of Transparent Conductive Films with Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Marko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Virkar	104124429 (07-28-2015) 201610006 (03-16-2016)	1577752 (04-11-2017)	14/448,504	Final Fees Paid 2-22-2017. Awaiting Patent Certificate.

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5074.11-TW-02	Metal Nanowire Inks for the Formation of Transparent Conductive Films with Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Marko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	105143754 (12-28-2016) 201713735 (04-16-2017)	1621669 (04-21-2018)	104124429	Annuity fees due annually 4-20
5074.11-US-01	Metal Nanowire Inks for the Formation of Transparent Conductive Films with Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Marko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	14/448,504 (07-31-2014)	9,183,968 (11/10/2015)	None	Issued. Issue date 11/10/15 Fees due 5/10/2019; 5/10/2023; 5/10/2027
5074.11-US-02	Metal Nanowire Inks for the Formation of Transparent Conductive Films with Fused Networks (Continuation)	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Marko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	14/464,332 (08-20-2014)	9,150,746 (10/06/2015)	14/448,504	Issue notification rec'd. Expiry 7/31/2034. Letter Patent Rec'd 10/9/15. Issued 10/6/15. Errors found in Patent; sent client ltr 10/23/15. Fees due 4/6/2019; 4/6/2023; 4/6/2027.
5074.11-US-03	Metal Nanowire Inks for the Formation of Transparent Conductive Films with Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Marko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	14/848,697 (09-09-2015) 2016-0032127 (02-04-2016)	9,447,301 (09/20/2016)	14/464,332 14/448,504	Issued.

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5074.11-US-04	Metal Nanowire Inks for the Formation of Transparent Conductive Films with Fused Networks (Cont)	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	15/247,533 (08-25-2016) 2016-0369118 (12-22-2016)	10,100,213 (10/16/2018)	14/464,332 14/448,504 14/848,697	Issued.
5074.11-US-05	Transparent Conductive Films With Fused Networks (Cont.)	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	16/127,462 (09-11-2018) 2019-0010347 (01-10-2019)	10,870,772 (12-22-2020)	14/464,332 14/448,504 14/848,697 15/247,533	Issued.
5074.11-US-06	Transparent Conductive Films With Fused Networks (Cont.)	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	16,952,372 (11-19-2020)		14/464,332 14/448,504 14/848,697 15/247,533 16/127,462	App filed.
5074.11-WO-01	Metal Nanowire Inks For The Formation Of Transparent Conductive Films With Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	PCT/US2015/42203 07-27-2015 WO 2016/018792 (02-04-2016)		14/464,332 08-20-2014 14/448,504 07-31-2014	National phase entered.

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5074.11-WO-CN	Metal Nanowire Inks For The Formation Of Transparent Conductive Films With Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Virkar	201580041760.X (7-27-2015) CN106575541A (04-19-2017)	ZL201580041760.X (07-07-2020)	PCT/US2015/42203	Annuity fees due annually: 7-27-2035 Expires: 7-26-2035
5074.11-WO-CN-HK	Metal Nanowire Inks For The Formation Of Transparent Conductive Films With Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Virkar	17109037.7 (09-07-2017) 1235545A (03-09-2018)		201580041760.X	Abandon per client instructions 12-23-2020
5074.11-WO-CN-02	Metal Nanowire Inks For The Formation Of Transparent Conductive Films With Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Virkar	202010573983.3 (06-22-2020) CN 111621201 A (09-04-2020)		201580041760.X	Awaiting first Office Action Voluntary Amendment deadline: 12-25-2020 Hong Kong deadline: 3-4-2021
5074.11-WO-EP	Metal Nanowire Inks For The Formation Of Transparent Conductive Films With Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Virkar	15827431.6 (7-27-2015) 3180792 (06-21-2017)	3180792 (12-30-2020)	PCT/US2015/42203	Annuity fees due annually 7/27. Grant Decision Received: 12-3-2020 <i>Validation deadline 12-30-2021</i> Opposition Period end date: 9-30-2021

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5074.11-WO-JP	Metal Nanowire Inks For The Formation Of Transparent Conductive Films With Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	2017-505219 (07-27-2015) 2017-529419 (10-05-2017)	6577018 (08-30-2019)	PCT/US2015/4 2203	Annuity fees due annually 8-30 Opposition Deadline: 3-18-2020 Expires 7-27-2035
5074.11-WO-JP-02	Metal Nanowire Inks For The Formation Of Transparent Conductive Films With Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	2019-151031 (08-21-2019) 2020-073628 (05-14-2020)		2017-505219	Response to First Office Action Deadline: 2-17-2021
5074.11-WO-KR	Metal Nanowire Inks For The Formation Of Transparent Conductive Films With Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	10-2017-7005587 (7-27-2015) <i>KR20170039253.4</i> <i>(04-10-2017)</i>	10-2056146 (12-10-2019)	PCT/US2015/4 2203	Annuity fees due annually 12-10 Expires: 7-27-2035
5074.11-WO-KR-02	Metal Nanowire Inks For The Formation Of Transparent Conductive Films With Fused Networks	Ying-Syi Li, Xiqiang Yang, Yu Kambe, Xiaofeng Chen, Hua Gu, Steven Michael Lam, Melanie Mariko Inouye, Arthur Yung-Chi Cheng, Alex Da Zhang Tan, Christopher S. Scully, Ajay Vitkar	10-2019-7036371 (12-09-2019)		10-2017- 7005587	Response Filed: 9-28-2020

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5074.12-US-01	Stable Transparent Conductive Elements Based On Sparse Metal Conductive Layers	Xiqiang Yang, Hua Gu, Yung-Yu Huang, Arthur Yung-Chi Cheng, Ajay Virkar, Ryomei Omote, Kazuhiro Nishikawa, Takeshi Nishimura, Yoshitaka Emoto	14/527,440 (10/29/2014) 2016/0122562 (05/05/2016)		None	ABANDONED 3/20/18.
5074.12-TW-01	Stable Transparent Conductive Elements Based On Sparse Metal Conductive Layers	Xiqiang Yang, Hua Gu, Yung-Yu Huang, Arthur Yung-Chi Cheng, Ajay Virkar, Ryomei Omote, Kazuhiro Nishikawa, Takeshi Nishimura, Yoshitaka Emoto	104135646 (10-29-2015)		14/527,440 (10-29-2014)	Abandoned February 2018.
5074.12-WO-01	Stable Transparent Conductive Elements Based On Sparse Metal Conductive Layers	Xiqiang Yang, Hua Gu, Yung-Yu Huang, Arthur Yung-Chi Cheng, Ajay Virkar, Ryomei Omote, Kazuhiro Nishikawa, Takeshi Nishimura, Yoshitaka Emoto	PCT/US2015/57296 (10-26-2015) WO2016069438 (5-6-2016)		14/527,400 (10-29-2014)	Abandoned

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5074.13-TW-01	Property Enhancing Fillers for Transparent Coatings and Transparent Conductive Films	Ajay Virkar, Faraz Azadi Manzour, Xiqiang Yang, Hua Gu	104132624 (10-2-2015) 201627428 (8-1-2016)	1620802 (04-11-2018)	62/059,376 14/577,669	Annuity fees due annually 4-10
5074.13-US-01	Property Enhancing Fillers for Coatings and Transparent Conductive Films	Ajay Virkar, Faraz Azadi Manzour, Xiqiang Yang, Hua Gu	62/059,376 (10-03-2014)		None	Perfected
5074.13-US-02	Property Enhancing Fillers for Transparent Coatings and Transparent Conductive Films	Ajay Virkar, Faraz Azadi Manzour, Xiqiang Yang, Hua Gu	14/577,669 (12-19-2014) 2016-0096967 A1 (04-07-2016)		62/059,376	Final OA rec'd 10/7/19; RCE Amndt. & Supp IDS Filed 2/7/20.
5074.13-US-03	Property Enhancing Fillers for Transparent Coatings and Transparent Conductive Films (Div.)	Ajay Virkar, Faraz Azadi Manzour, Xiqiang Yang, Hua Gu	15/889,594 (02-06-2018) 2018-0179410 A1 (06-28-2018)	10,738,212 (08-11-2020)	62/059,376 14/577,669	Issued. Request Certificate of Corr. 10/28/20.
5074.13-WO-01	Property Enhancing Fillers for Transparent Coatings and Transparent Conductive Films	Ajay Virkar, Faraz Azadi Manzour, Xiqiang Yang, Hua Gu	PCT/US2015/53681 (10-2-2015) WO2016/054484 (04-07-2016)		14/577,669 (12-19-2014) 62/059,376 (10-03-2014)	National phase entered.
5074.13-WO-CN	Property Enhancing Fillers for Transparent Coatings and Transparent Conductive Films	Ajay Virkar, Faraz Azadi Manzour, Xiqiang Yang, Hua Gu	201580060974.1 (10-02-2015) CN107112302A (08-29-2017)	ZL201580060 974.1 (05-26-2020)	PCT/US2015/53681	Annuity fees due annually 10-2 Expires: 10-1-2035
5074.13-WO-CN-HK	Property Enhancing Fillers for Transparent Coatings and Transparent Conductive Films	Ajay Virkar, Faraz Azadi Manzour, Xiqiang Yang, Hua Gu	18101954.2 (02-08-2018) 1242838A (06-29-2018)		201580060974.1	Annuity fees due annually 10/2
5074.13-WO-CN-02	Property Enhancing Fillers for Transparent Coatings and Transparent Conductive Films	Ajay Virkar, Faraz Azadi Manzour, Xiqiang Yang, Hua Gu	202010371396.6 (05-06-2020) CN111378309A (07-07-2020)		201580060974.1	2 nd State HK Registration/(Grant) filed 11-10-2020
						Exam Requested 5-6-2020
						Voluntary Amendment Deadline: 10-28-2020
						Hong Kong Deadline: 1-7-2021

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5074.13-WO-JP	Property Enhancing Fillers for Transparent Coatings and Transparent Conductive Films	Ajay Virkar, Faraz Azadi Manzour, Xiqiang Yang, Hua Gu	2017-517776 (10-02-2015) 2018-500194 (01-11-2018)		PCT/US2015/5 3681	Grant fees paid January 2021 Awaiting Letters Patent document
5074.13-WO-KR	Property Enhancing Fillers for Transparent Coatings and Transparent Conductive Films	Ajay Virkar, Faraz Azadi Manzour, Xiqiang Yang, Hua Gu	10-2017-7012065 (10-02-2015)		PCT/US2015/5 3681	Exam Requested 9-14-2020
5074.14-TW-01	Transparent Films With Control Of Light Hue Using Nanoscale Colorants	Xiqiang Yang, Yadong Cao, Yongxing Hu, Hua Gu, Ying-Syi Li, and Ajay Virkar	104134114 (10-16-2015) 201621923 (6-16-2016)	1595514 (08-11-2017)	14/627,400 (02/20/2015 62/065,314 (10/17/2014)	Annuity fees due annually 8-10. Expires 10-15-2035
5074.14-US-01	Transparent Conductive Films with Control of Light Hue	Xiqiang Yang, Yadong Cao, Ying-Syi Li, Ajay Virkar	62/065,314 (10-17-2014)		None	Perfected
5074.14-US-02	Transparent Films with Control of Light Hue Using Nanoscale Colorants	Xiqiang Yang, Yadong Cao, Yongxing Hu, Hua Gu, Ying-Syi Li, and Ajay Virkar	14/627,400 (02/20/2015) 2016/0108256 (04-21-2016)		62/065,314	Track-1 approved. Appeal No. 2020-001150
5074.14-WO-01	Transparent Films With Control Of Light Hue Using Nanoscale Colorants	Xiqiang Yang, Yadong Cao, Yongxing Hu, Hua Gu, Ying-Syi Li, and Ajay Virkar	PCT/US2015/55768 (10-15-15)		14/627,400 (02/20/2015 62/065,314 (10/17/2014)	National Phase Deadline: 4/17/2017
5074.14-WO-CN	Transparent Films With Control Of Light Hue Using Nanoscale Colorants	Xiqiang Yang, Yadong Cao, Yongxing Hu, Hua Gu, Ying-Syi Li, and Ajay Virkar	201580062938.9 (10-15-15) CN107075280A (08-18-2017)		PCT/US2015/5 5768	Response Deadline (extended) 1-25-2021
5074.14-WO-CN-HK	Transparent Films With Control Of Light Hue Using Nanoscale Colorants	Xiqiang Yang, Yadong Cao, Yongxing Hu, Hua Gu, Ying-Syi Li, and Ajay Virkar	18101955.1 (02-08-2018) 1242722A (06-29-2018)		201580062938.9	Annuity fees due annually 10/15.

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5074.14-WO-JP	Transparent Films With Control Of Light Hue Using Nanoscale Colorants	Xiqiang Yang, Yadong Cao, Yongxing Hu, Hua Gu, Ying-Syi Li, and Ajay Virkar	2017-520512 (10-15-15) 2017-539047 (12-28-2017)	6755244 (08-27-2020)	PCT/US2015/5 5768	Annuity fees due annually 8-27 Expires: 10-15-2035
5074.14-WO-JP-02	Transparent Films With Control Of Light Hue Using Nanoscale Colorants	Xiqiang Yang, Yadong Cao, Yongxing Hu, Hua Gu, Ying-Syi Li, and Ajay Virkar	2020-072935 (04-15-2020) 2020-125483 (08-20-2020)		2017-520512	Exam requested 4-15-2020 Awaiting first office action
5074.14-WO-KR	Transparent Films With Control Of Light Hue Using Nanoscale Colorants	Xiqiang Yang, Yadong Cao, Yongxing Hu, Hua Gu, Ying-Syi Li, and Ajay Virkar	10-2017-7013238 (10-15-15)		PCT/US2015/5 5768	Exam Requested 4-14-2020
5074.15-US-01	Metal Nanowire Synthesis Using Selected Chloride Salts	Ying-Syi Li, Xiqiang Yang, Ajay Virkar	62/093,294 (12-17-2014)		None	Provisional application filed. Closed. Not perfected.
5074.16-US-01	Transparent Polymer Hardcoats and Corresponding Transparent Films	Hua Gu, Xiqiang Yang, Wen Lin Kwek, Faraz Azadi Manzour, Ajay Virkar	14/741,119 (06-16-2015) 2016-0369104 (12-22-2016)		None	ABANDONED 12/27/17.
5074.18-US-01	Noble Metal Coated Silver Nanowires, Methods for Performing the Coating and Stabilized Transparent Conductive Films	Yongxing Hu, Xiqiang Yang, Ying-Syi Li, Melanie Mariko Inouye, Yadong Cao, Ajay Virkar	62/142,870 (04-03-2015)		None	Provisional application filed
5074.18-US-02	Transparent Conductive Film	Yongxing Hu, Xiqiang Yang, Ying-Syi Li, Alexander Seung-il Hong, Melanie Mariko Inouye, Yadong Cao, Ajay Virkar	14/823,001 (08/11/2015) 2016-0293288 A1 (10/06/2016)	9,530,534 (12/27/2016)	62/142,870	Issued.
5074.18-US-03	Noble Metal Coated Silver Nanowires, Methods For Performing The Coating (DIV)	Yongxing Hu, Xiqiang Yang, Ying-Syi Li, Alexander Seung-il Hong, Melanie Mariko Inouye, Yadong Cao, Ajay Virkar	15/354,733 (11/17/2016) 2017-0067166 A1 (03/09/2017)		62/142,870 14/823,001	Final Office Action 7/23/20; Notice of Appeal filed 10/23/20.

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5074.18-TW-01	Noble Metal Coated Silver Nanowires, Methods for Performing the Coating and Stabilized Transparent Conductive Films	Yongxing Hu, Xiqiang Yang, Ying-Syi Li, Alexander Seung-il Hong, Melanie Mariko Inouye, Yadong Cao, Ajay Virkar	105110634 (4/1/2016) 201642280 (12-1-2016)		62/142,870 14/823,001	Issue Fees / Divisional Deadline: 23-2021
5074.18-WO-01	Noble Metal Coated Silver Nanowires, Methods for Performing the Coating and Stabilized Transparent Conductive Films	Yongxing Hu, Xiqiang Yang, Ying-Syi Li, Alexander Seung-il Hong, Melanie Mariko Inouye, Yadong Cao, Ajay Virkar	PCT/US2016/24627 (03/29/2015) WO2016160759 (10/06/2016)		14/823,001 (08/11/2015) 62/142,870 (4-3-15)	National Phase Deadline: 10-3-2017
5074.18-WO-CN	Noble Metal Coated Silver Nanowires, Methods for Performing the Coating and Stabilized Transparent Conductive Films	Yongxing Hu, Xiqiang Yang, Ying-Syi Li, Alexander Seung-il Hong, Melanie Mariko Inouye, Yadong Cao, Ajay Virkar	201680027045.5 (03/29/2016) CN107851973A (03/27/2018)		PCT/US2016/24627	Response Deadline: 11-9-2020
5074.18-WO-JP	Noble Metal Coated Silver Nanowires, Methods for Performing the Coating and Stabilized Transparent Conductive Films	Yongxing Hu, Xiqiang Yang, Ying-Syi Li, Alexander Seung-il Hong, Melanie Mariko Inouye, Yadong Cao, Ajay Virkar	2017-551648 (03/29/2016) 2018-514060 (05-31-2018)	6752217 (08-20-2020)	PCT/US2016/24627	Annuity fees due annually 8-20 Expires: 3-29-2036
5074.18-WO-JP-02	Noble Metal Coated Silver Nanowires, Methods for Performing the Coating and Stabilized Transparent Conductive Films	Yongxing Hu, Xiqiang Yang, Ying-Syi Li, Alexander Seung-il Hong, Melanie Mariko Inouye, Yadong Cao, Ajay Virkar	2020-138079 (08-18-2020) <i>2020-190034</i> <i>(11-26-2020)</i>		2017-551648	Awaiting Filing Receipt
5074.18-WO-KR	Noble Metal Coated Silver Nanowires, Methods for Performing the Coating and Stabilized Transparent Conductive Films	Yongxing Hu, Xiqiang Yang, Ying-Syi Li, Alexander Seung-il Hong, Melanie Mariko Inouye, Yadong Cao, Ajay Virkar	10-2017-7031916 (03/29/2016)		PCT/US2016/24627	Request Exam Deadline: 3-29-2021
5074.19-TW-01	Noble Metal Coated Silver Nanowires, Methods for Performing the Coating and Stabilized Transparent Conductive Films	Yongxing Hu, Alexander Seung-il Hong, Ying-Syi Li, Xiqiang Yang, Yadong Cao, Ajay Virkar	105140805 (12-09-2016) 201730374 (09-01-2017)		14/963,974	Response filed December 2020

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5074.19-US-01	Methods For Synthesizing Silver Nanoplates And Nobel Metal Coated Silver Nanoplates And Their Use In Transparent Films For Control Of Light Hue	Yongxing Hu, Alexander Seung-il Hong, Ying-Syi Li, Xiqiang Yang, Yadong Cao, Ajay Virkar	14/963,974 (12/9/2015) 2017/0169911 A1 (06-15-2017)	10,147,512 (12-04-2018)		Issued.
5074.19-US-02	Methods For Synthesizing Silver Nanoplates And Nobel Metal Coated Silver Nanoplates And Their Use In Transparent Films For Control Of Light Hue	Yongxing Hu, Alexander Seung-il Hong, Ying-Syi Li, Xiqiang Yang, Yadong Cao, Ajay Virkar	16/174,433 (10-30-2018) 2019-0066863 A1 (02-28-2019)	10,902,965 (01-26-2021)	14/963,974	Issued.
5074.19-US-03	Methods For Synthesizing Silver Nanoplates And Nobel Metal Coated Silver Nanoplates And Their Use In Transparent Films For Control Of Light Hue	Yongxing Hu, Alexander Seung-il Hong, Ying-Syi Li, Xiqiang Yang, Yadong Cao, Ajay Virkar	17,132,327 (12-23-2020)		14/963,974 16/174,433	App & IDS filed.
5074.19-WO-01	Methods For Synthesizing Silver Nanoplates And Nobel Metal Coated Silver Nanoplates And Their Use In Transparent Films For Control Of Light Hue	Yongxing Hu, Alexander Seung-il Hong, Ying-Syi Li, Xiqiang Yang, Yadong Cao, Ajay Virkar	PCT/US2016/064558 (12/02/2016) WO 2017/100086 (06/15/2017)		14/963,974	National Phase Deadline: 06/09/2018
5074.19-WO-CN	Methods For Synthesizing Silver Nanoplates And Nobel Metal Coated Silver Nanoplates And Their Use In Transparent Films For Control Of Light Hue	Yongxing Hu, Alexander Seung-il Hong, Ying-Syi Li, Xiqiang Yang, Yadong Cao, Ajay Virkar	201680077547.9 (12/02/2016) CN108699284A (10/23/2018)		PCT/US2016/0 64558	Response to Second OA Deadline: 2-23-2021s
5074.19-WO-JP	Methods For Synthesizing Silver Nanoplates And Nobel Metal Coated Silver Nanoplates And Their Use In Transparent Films For Control Of Light Hue	Yongxing Hu, Alexander Seung-il Hong, Ying-Syi Li, Xiqiang Yang, Yadong Cao, Ajay Virkar	2018-530051 (12/02/2016)		PCT/US2016/0 64558	Response Deadline extended to 3-6-2021

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5074.19-WO-KR	Methods For Synthesizing Silver Nanoplates And Nobel Metal Coated Silver Nanoplates And Their Use In Transparent Films For Control Of Light Hue	Yongxing Hu, Alexander Seung-il Hong, Ying-Syi Li, Xiqiang Yang, Yadong Cao, Ajay Virkar	10-2018-7019511 (12/02/2016)		PCT/US2016/0 64558	Request Exam Deadline 12/2/2017
5074.20-TW-01	Stabilized Sparse Metal Conductive Films And Solutions For Delivery Of Stabilizing Compounds	Xiqiang Yang, Yongxing Hu, Ajay Virkar, Arthur Yung-Chi Cheng, Faraz Azadi Manzour, Ying-Syi Li	106134739 (10/11/2017)		62/408,371 62/427,348	Exam Requested October 2020
5074.20-US-01	Stabilized Sparse Metal Conductive Films And Solutions For Delivery Of Stabilizing Compounds	Xiqiang Yang, Yongxing Hu, Ajay Virkar	62/408,371 (10/11/2016)			Combined with 5074.22-US-01.
5074.20-US-02	Stabilized Sparse Metal Conductive Films And Solutions For Delivery Of Stabilizing Compounds	Xiqiang Yang, Yongxing Hu, Ajay Virkar, Arthur Yung-Chi Cheng, Faraz Azadi Manzour, Ying-Syi Li	15730053 (10-11-2017) 2018-0105704 A1 (04-19-2018)			Final Office Action 9/24/20; Amndt AF filed 11/25/20; Advisory Action 12/21/20; Notice of Appeal 12/23/20; Appeal Brief due 2/23/21.
5074.20-WO-01	Stabilized Sparse Metal Conductive Films And Solutions For Delivery Of Stabilizing Compounds	Xiqiang Yang, Yongxing Hu, Ajay Virkar, Arthur Yung-Chi Cheng, Faraz Azadi Manzour, Ying-Syi Li	PCT/US2017/056134 (10-11-2017) WO2018/071538 (04-19-2018)		62/408,371 62/427,348	National Phase Entered
5074.20-WO-CN	Stabilized Sparse Metal Conductive Films And Solutions For Delivery Of Stabilizing Compounds	Xiqiang Yang, Yongxing Hu, Ajay Virkar, Arthur Yung-Chi Cheng, Faraz Azadi Manzour, Ying-Syi Li	201780063445.6 (10-11-2017) CN109804439 (05-24-2019)		PCT/US2017/0 56134	Response to First Office Action Deadline: 10-2-2020

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5074.20-WO-CN-HK	Stabilized Sparse Metal Conductive Films And Solutions For Delivery Of Stabilizing Compounds	Xiqiang Yang, Yongxing Hu, Ajay Virkar, Arthur Yung-Chi Cheng, Faraz Azadi Manzour, Ying- Syi Li	19132270.0 (11-15-2019) HK40008989 (06-19-2020)		201780063445. 6	Annuity fees due annually 10-11
5074.20-WO-EP	Stabilized Sparse Metal Conductive Films And Solutions For Delivery Of Stabilizing Compounds	Xiqiang Yang, Yongxing Hu, Ajay Virkar, Arthur Yung-Chi Cheng, Faraz Azadi Manzour, Ying- Syi Li	17861111.7 (10-11-2017) 3526801 (08-21-2019)		PCT/US2017/0 56134	Annuity fees due annually 10-11 Response to Search Opinion filed 11-30-2020
5074.20-WO-JP	Stabilized Sparse Metal Conductive Films And Solutions For Delivery Of Stabilizing Compounds	Xiqiang Yang, Yongxing Hu, Ajay Virkar, Arthur Yung-Chi Cheng, Faraz Azadi Manzour, Ying- Syi Li	2019-520156 (10-11-2017) 2019-537820 (12-26-2019)		PCT/US2017/0 56134	Exam Requested 10-9-2020
5074.20-WO-KR	Stabilized Sparse Metal Conductive Films And Solutions For Delivery Of Stabilizing Compounds	Xiqiang Yang, Yongxing Hu, Ajay Virkar, Arthur Yung-Chi Cheng, Faraz Azadi Manzour, Ying- Syi Li	10-2019-7011179 (10-11-2017)		PCT/US2017/0 56134	Exam Requested 9-28-2020
5074.22-US-01	Stabilized Sparse Metal Conductive Films And Solutions For Delivery Of Stabilizing Compounds	Xiqiang Yang, Yongxing Hu, Ajay Virkar, Arthur Yung-Chi Cheng, Faraz Azadi Manzour, Ying-Syi Li	62/427,348 (11/29/2016)			Combined with 5074.20-US-01.
5074.24-US-01	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	62/595,281 (12-06-2017)			Filing Receipt rec'd 12/20/17.

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5074.24-US-02	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires (claims benefit)	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	15/951,758 (04-12-2018) 2019-0172600 (06-06-2019)	10,714,230 (07-14-2020)	62/595,281	Issued. Request Certificate of Corr. 10/28/20.
5074.24-US-03	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires (Div.)	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	16/249,241 (01-16-2019) 2019-0172601 (06-06-2019)		62/595,281 15/951,758	Track 1 Granted ABANDONED 2/19/20.
5074.24-US-04	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires (Div.)	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	16/249,249 (01-16-2019) 2019-0172602 (06-06-2019)	10,438,714 (10-08-2019)	62/595,281 15/951,758	Issued.
5074.24-US-05	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires (Cont.)	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	16,549,204 (08-23-2019) 2019-0378633 (12-12-2019)		62/595,281 15/951,758 16/249,249	Final OA rec'd 11/12/20; Response AF due (1/12/21) 2/12/21.
5074.24-TW-01	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	107143804 (12-06-2018) TW201925487A (07-01-2019)	1686487 (03-1-2020)	62/595,281 15/951,758	Annuity fees due annually 2-28 Expires: 12-5-2038
5074.24-TW-02	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	108136063 (10-04-2019)		107143804	Response filed September 2020
5074.24-WO-01	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	PCT/US2018/063995 (12-05-2018) WO 2019/113162 (06-13-2019)		62/595,281 15/951,758	National Phase Deadline: 6/6/2020

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5074.24-WO-CN	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	201880086347.9 (12-05-2018) CN111602209A (08-28-2020)		PCT/US2018/0 63995	Awaiting first Office Action Voluntary Amendment deadline: 1-18-2020
5074.24-WO-EP	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	18886188.4. (12-05-2018)		PCT/US2018/0 63995	Hong Kong deadline: 2-28-2021 Amend Claims Deadline: 1-17-2021
5074.24-WO-JP	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	2020-531147 (12-05-2018)			Request Exam Deadline: 12-5-2021
5074.24-WO-KR	Thin And Uniform Silver Nanowires, Method Of Synthesis And Transparent Conductive Films Formed From The Nanowires	Yongxing Hu, Ying-Syi Li, Xiqiang Yang, Jinh Shun Ang, Ajay Virkar	10-2020-7019236 (12-05-2018) 10-2020-0090899A (07-29-2020)			Exam Requested 12-10-2020
5074.26-US-01	Silver-Based Transparent Conductive Layers Interfaced With Copper Traces, Methods For Forming The Structures, And Corresponding Touch Sensors (Prov)	Xiqiang Yang	62/674,842 (05-22-2018)			App filed.
5074.26-US-02	Silver-Based Transparent Conductive Layers Interfaced With Copper Traces and Methods For Forming The Structures	Xiqiang Yang, Yadong Cao, Ajay Virkar	62/674,842 (05-21-2019) 2019-0364665 (11-28-2019)		62/674,842 62/751,788	Final Office Action 12/22/20; Response AF due (2/22/21) 3/22/21.

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5074.28-US-01	Thin Flexible Structure With Surfaces With Transparent Conductive Films And Processes For Forming The Structures	Xiaofeng Chen, Byunghwan Kang, Jackie Chen, Yadong Cao, Vicki Luo, Arthur Yung-Chi Cheng, Andrew Hyeonjoo Moon, Xiqiang Yang, Ajay Virkar	16/259,302 (01-28-2019) 2020-0245457 (07-30-2020)			Updated Filing Receipt rec'd 4/10/2020
5074.28-TW-01	Thin Flexible Structure With Surfaces With Transparent Conductive Films And Processes For Forming The Structures	Xiaofeng Chen, Byunghwan Kang, Jackie Chen, Yadong Cao, Vicki Luo, Arthur Yung-Chi Cheng, Andrew Hyeonjoo Moon, Xiqiang Yang, Ajay Virkar	109102669 (01-22-2020)		16/259,302	Exam Requested 1-22-2020 Awaiting First Office Action
5074.28-WO-01	Thin Flexible Structure With Surfaces With Transparent Conductive Films And Processes For Forming The Structures	Xiaofeng Chen, Byunghwan Kang, Jackie Chen, Yadong Cao, Vicki Luo, Arthur Yung-Chi Cheng, Andrew Hyeonjoo Moon, Xiqiang Yang, Ajay Virkar	PCT/US2020/015218 (01-27-2020) WO 2020/159874 (08-06-2020)		16/259,302	Awaiting filing receipt National Phase Deadline: 7-28-2021
5074.29-US-01	Silver-Based Transparent Conductive Layers Interfaced With Copper Traces, Methods For Forming The Structures, And Corresponding Touch Sensors (Prov)	Xiqiang Yang, Yadong Cao, Ajay Virkar	62751788 (10-29-2018)			Perfected.

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5074.30-US-01	Post Coating Processing Of Transparent Conductive Films Formed With Fused Silver Nanowires (Prov)	Xiqiang Yang, Ajay Virkar	62/936,681 (11-18-2019)			Filing Receipt rec'd 12/9/19.
5074.30-US-02	Coatings And Processing Of Transparent Conductive Films For Stabilization Of Sparse Metal Conductive Layers	Xiqiang Yang, Ajay Virkar	16/950,246 (11-17-2020)		62/936,681	App filed.
5074.30-TW-01	Coatings And Processing Of Transparent Conductive Films For Stabilization Of Sparse Metal Conductive Layers	Xiqiang Yang, Ajay Virkar	109140374 (11-18-2020)		62/936,681	Request Exam deadline:
5074.30-WO-01	Coatings And Processing Of Transparent Conductive Films For Stabilization Of Sparse Metal Conductive Layers	Xiqiang Yang, Ajay Virkar	PCT/US2020/066876 (11-17-2020)		62/936,681	
5074.31-US-01	Transparent Polymer Hardcoats With Antimicrobial Efficacy (Prov)	Faraz Azadi Manzour, Alexander Seung-il Hong, Salman Mansoor Farooqui, Xiqiang Yang, Ajay Virkar	63/059,564 (07-31-2020)			Prov App filed.

EXHIBIT C

Trademarks

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List of Trademarks

Name of Mark	Relation to Product	Effective Date	Term	Expiration Date	Status	Registration Number
C3Nano®	Company Name	August 7, 2018	10 years	August 7, 2028	Registered	5,533,463
Nanoglue®	Fusing Technology	April 9, 2019	10 years	April 9, 2019	Registered	5,723,953
Activegrid®	Ink/Film	June 9, 2020	10 years	June 9, 2030	Registered	6,073,924
ActiveguardHCTM	Hardcoat				Trademark claimed by Common Law Usage	
Topaz™	b* Controlled Technology				Trademark claimed by Common Law Usage	
TPITM	Transparent Polyimide				Trademark claimed by Common Law Usage	

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