

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5509804

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	NANOHOLDINGS, LLC	04/25/2019
RECEIVING PARTY DATA		
Name:	INVESTTECH PARTNERS INVESTMENTS LLC	
Street Address:	2101-2102 BOULEVARD PLAZA TOWER 2	
City:	DUBAI	
State/Country:	UNITED ARAB EMIRATES	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Patent Number:	9214502
CORRESPONDENCE DATA		
Fax Number:	(312)715-5155	
<i>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.</i>		
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ATTORNEY DOCKET NUMBER:	167946.000002 2ND 1PT	
NAME OF SUBMITTER:	JOHN R LINZER	
SIGNATURE:	/John R Linzer/	
DATE SIGNED:	05/07/2019	
Total Attachments: 4		
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PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT ("**Patent Security Agreement**"), dated as of April 25, 2019 is made between NanoHoldings LLC, a Delaware limited liability company (the "**Debtor**") in favor of Investech Partners Investments LLC, a UAE limited liability company ("**Investech**").

WHEREAS, the Debtor has entered into a Securities Purchase Agreement dated as of March 31, 2019 and a Guaranty and Security Agreement dated as of March 31, 2019 (the "**Security Agreement**") with Investech.

WHEREAS, under the terms of the Security Agreement, the Debtor has granted to Investech, a security interest in, among other property, certain intellectual property of the Debtor, and has agreed to execute and deliver this Patent Security Agreement for recording with the United States Patent and Trademark Office.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Grant of Security. Debtor hereby pledges and grants to Investech a security interest in and to all of the right, title, and interest of Debtor in the patents and patent applications set forth in Schedule 1 hereto and all reissues, divisions, continuations, continuations-in-part, renewals, extensions, and reexaminations thereof and amendments thereto (the "**Patents**").

2. Recordation. Debtor authorizes the Commissioner for Patents to record and register this Patent Security Agreement upon request by Investech.

3. Loan Documents. This Patent Security Agreement has been entered into pursuant to and in conjunction with the Security Agreement, which is hereby incorporated by reference. The provisions of the Security Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of Investech with respect to the Patent Collateral are as provided by the Loan Agreement, the Security Agreement, and related documents, and nothing in this Patent Security Agreement shall be deemed to limit such rights and remedies.

4. Execution in Counterparts. This Patent Security Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Patent Security Agreement by facsimile or in electronic (i.e., "pdf" or "tif" format) shall be effective as delivery of a manually executed counterpart of this Patent Security Agreement.

5. Successors and Assigns. This Patent Security Agreement will be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns.

6. Governing Law. This Patent Security Agreement and any claim, controversy, dispute, or cause of action (whether in contract or tort or otherwise) based upon, arising out of, or relating to this Patent Security Agreement and the transactions contemplated hereby and thereby shall be governed by, and construed in accordance with, the laws of the United States and the State of New York, without giving effect to any choice or conflict of law provision or rule (whether of the State of New York or any other jurisdiction).

IN WITNESS WHEREOF, Debtor has caused this Patent Security Agreement to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

NanoHoldings, LLC

By: _____

Name: Justin Hall-Tipping

Title: CEO

Address for Notices:

112 Rowayton Avenue
Rowayton, CT 06853
USA

AGREED TO AND ACCEPTED:

Investech Partners Investments LLC



By: _____

Name: Rebecca Brinkmann

Title: Director

Address for Notices:

2101-2102
Boulevard Plaza Tower 2
Dubai, UAE
Email: Rebecca@ducashew.com

With mandatory copies that do not constitute
notice to: thomas@investechpartners.com
es@richardsonmaloney.com

SCHEDULE 1 PATENTS

Patents	Title	Jurisdiction	Patent Number	Issue Date	Assignee/Record Owner
	The Effect of Charge Blocking Layer on Organize Up Conversion Device	USPTO	US8716701	May 6, 2014	Nanoholdings, LLC University of Florida Research Foundation, Inc.
	Photodetector and Up Conversion Device with Gain	USPTO	US8829498 US9195661 US9214502	September 9, 2014 November 24, 2015 December 15, 2015	Nanoholdings, LLC University of Florida Research Foundation, Inc.
	Infrared Pass Visible Mirror for Up Conversion Device	USPTO	US8598573	December 3, 2013	Nanoholdings, LLC University of Florida Research Foundation, Inc.
	Transparent Infrared to Visible Up Conversion Device	USPTO	US9437835	September 6, 2016	Nanoholdings, LLC University of Florida Research Foundation, Inc.
	Method and Apparatus for Providing a Window With an at Least Partially Transparent One Side emitting OLED Lighting and an IR Sensitive Photovoltaic Panel	USPTO	US9190458	November 17, 2015	Nanoholdings, LLC University of Florida Research Foundation, Inc.
	Up Conversion Device with Broad Band Absorber	USPTO	US8592801	November 26, 2013	Nanoholdings, LLC University of Florida Research Foundation, Inc.

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Patent Applications Title	Jurisdiction	Application/ Publication Number	Filing Date	[Record Owner]
Infrared Imaging Device Integrating an IR Up Conversion Device w/a CMOS Image Sensor	USPTO	US20140111652	June 6, 2011	Nanoholdings, LLC University of Florida Research Foundation, Inc.
Method and Apparatus for Integrating an Infrared Photovoltaic Cell on a conventional Thin Film Photovoltaic Cell	USPTO	US20140060613	April 5, 2011	Nanoholdings, LLC University of Florida Research Foundation, Inc.
A Method and Apparatus for Detecting Infrared Radiation with Gain	USPTO	US20140217284	June 30, 2011	Nanoholdings, LLC University of Florida Research Foundation, Inc.
The Effect of Charge Blocking Layer on Photodetector/IR Photodetectors with High Detectivity at Low Drive Voltage	USPTO	US20120126204	November 23, 2010	Nanoholdings, LLC University of Florida Research Foundation, Inc.

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