Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
James R. Grandusky	06/09/2010
Leo J. Schowalter	06/09/2010
Shawn R. Gibb	06/09/2010
Joseph A. Smart	05/07/2010
Shiwen Liu	05/12/2010

RECEIVING PARTY DATA

Name:	Crystal IS, Inc.
Street Address:	70 Cohoes Avenue
City:	Green Island
State/Country:	NEW YORK
Postal Code:	12183

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13298570

CORRESPONDENCE DATA

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via US Mail.

Correspondent Name: Matthew T. Currie

Address Line 1: Bingham McCutchen LLP

Address Line 2: 2020 K Street, NW

Address Line 4: Washington, DISTRICT OF COLUMBIA 20006

ATTORNEY DOCKET NUMBER:	CIS-011CPC1	
NAME OF SUBMITTER:	Matthew T. Currie/N.Deane	PATENT

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Total Attachments: 8 source=CIS-011CPC1 Assignment#page1.tif source=CIS-011CPC1 Assignment#page2.tif source=CIS-011CPC1 Assignment#page3.tif source=CIS-011CPC1 Assignment#page4.tif source=CIS-011CPC1 Assignment#page5.tif source=CIS-011CPC1 Assignment#page6.tif source=CIS-011CPC1 Assignment#page7.tif source=CIS-011CPC1 Assignment#page8.tif

ASSIGNMENT BY INVENTORS

THIS ASSIGNMENT, by James R. Grandusky; Leo J. Schowalter; Shawn R. Gibb; Joseph A. Smart; and Shiwen Liu (hereinafter referred to as Assignors), residing at 22 Suncrest Drive, Waterford, New York 12188; 25 Cord Drive, Latham, New York 12110; 62 Southbury Road, Clifton Park, New York 12065; 358 Blume Road, Mooresville, North Carolina 28117; and 1 Castle Drive, Acton, Massachusetts 01720, respectively;

WHEREAS, Assignors have invented certain new and useful improvements in Thick Pseudomorphic Nitride Epitaxial Layers, set forth in a Patent application for Letters Patent of the United States, already filed on April 21, 2010 as U.S. Application No. 12/764,584; and

WHEREAS, Crystal IS, Inc., a corporation organized under and pursuant to the laws of the State of New York having its principal place of business at 70 Cohoes Avenue, Green Island, New York 12183 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefor and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the

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same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

AND for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignors hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignors hereby grant the following individuals the power to insert on this

Assignment any further identification which may be necessary or desirable in order to comply

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with the rules of the United States Patent and Trademark Office for recordation of this document:

GOODWIN PROCTER LLP

All practitioners at Customer Number 051414

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

OIS-0110P

Jane Land
James R. Grandhisky
Date: Jine 4 2010
United States of America ()
State of (CV) 88.
County of FAIDANG
Oth 111 Onla
On this day of 1990, and before the
personally came James R. Grandusky , to me known to be the individual
described in and who executed the foregoing instrument, and acknowledged execution
of the same.
())
Elene Joy Purplets, History Public Notary Public
Elene Joy Postelle, Motory Policy State of New York Qualified in Recognition Stately Notary Public
Commission Expines December 28, 3913
Registration # OTBASISE154

21/4/2015
Date: June 9th 2010 Leo J. Schowalter
United States of America State of
described in and who executed the foregoing instrument, and acknowledged execution of the same. State of Note Year Control Systems December 28, 2013 Complession Systems December 38, 2013

Jan R. M. Gibb
Date: June 4th 2010
United States of America State of State
County of 411000
On this day of,
personally came Shawn R. Gibb , to me known to be the individual
described in and who executed the foregoing instrument, and adknowledged execution
of the same.
Ciente Joy Funcioni, Natury Public State of Natur York Countined in Recomment Sciently Commission Engines December 38, 2013 Fulgished on a Citae at 199104

		Talled lit
		/ Joseph A. Smart
Date: May	7,2010	
United States of Ame State of County of	rica <u>North Carolina</u>) ss <u>Iredell</u>	(.)
On this	day of May Joseph A. Smart	to me known to be the individual rument, and acknowledged execution
of the same.		Notary Public

My Commission Expires: April 22, 2014

Shiwen Lift May 12, 2010 United States of America
State of New York
County of States County of day of MO , 2010 , before me Shiwen Liu , to me known to be the individual personally came described in and who executed the foregoing instrument, and acknowledged execution of the same. COUNTNEY R FUSCO

> **PATENT** REEL: 027244 FRAME: 0504

RECORDED: 11/17/2011

Date:

On this

Notary Public - State of New York NO. 01FU8219088 Qualified in Stauben Coupty My Commission Expires 212