TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM427768

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
UMB Bank, National Association		05/15/2017	National Banking Association: MISSOURI

RECEIVING PARTY DATA

Name:	GTAT Corporation
Street Address:	243 Daniel Webster Highway
City:	Merrimack
State/Country:	NEW HAMPSHIRE
Postal Code:	03054
Entity Type:	Corporation: DELAWARE

PROPERTY NUMBERS Total: 4

Property Type	Number	Word Mark
Registration Number:	3523763	HEM
Registration Number:	1084417	
Registration Number:	1150725	CRYSTAL SYSTEMS
Serial Number:	86220468	SICLONE

CH $115.00 3523763

CORRESPONDENCE DATA

Fax Number: 6172359492

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: 6179517000
Email: mdipalma@ropesgray.com
Correspondent Name: Ropes & Gray LLP
Address Line 1: Prudential Tower 800 Boylston Street
Address Line 4: Boston, MASSACHUSETTS 02199-3600

NAME OF SUBMITTER:	Mary Jane DiPalma
SIGNATURE:	/ Mary Jane DiPalma /
DATE SIGNED:	05/16/2017

Total Attachments: 7
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TERMINATION AND RELEASE OF
SECURITY INTEREST IN INTELLECTUAL PROPERTY

TERMINATION AND RELEASE is made this 15th day of May, 2017, by UMB Bank, National Association (in its capacity as collateral agent, the "Agent"), to GTAT Corporation, a Delaware corporation (the "Pledgor").

WITNESSETH:

WHEREAS, pursuant to (i) that certain Collateral Agreement, dated as of March 17, 2016, made by and among the Grantors (as defined therein) and the Agent, for the benefit of the Secured Parties (as defined therein) (as supplemented or otherwise modified from time to time, the "Security Agreement"), (ii) that certain Patent Security Agreement, dated as of March 17, 2016, between the Pledgor and the Agent, for the benefit of the Secured Parties (as supplemented or otherwise modified from time to time, the "Patent Security Agreement") and (iii) that certain Trademark Security Agreement, dated as of March 17, 2016, between the Pledgor and the Agent, for the benefit of the Secured Parties (as supplemented or otherwise modified from time to time, the "Trademark Security Agreement"), a security interest was granted by the Pledgor to the Agent in certain collateral, including the Patent Collateral (as defined in the Patent Security Agreement) and the Trademark Collateral (as defined in the Trademark Security Agreement);

WHEREAS, pursuant to the Patent Security Agreement, the Pledgor reaffirmed its intent to grant a security interest (the "Patent Security Interest") to the Agent specifically in certain Patent Collateral;

WHEREAS, pursuant to the Trademark Security Agreement, the Pledgor reaffirmed its intent to grant a security interest (the "Trademark Security Interest" and together with the Patent Security Interest, the Security Interests) to the Agent specifically in certain Trademark Collateral;

WHEREAS, a notice of the Security Interest with respect to the Trademarks (as defined in the Trademark Security Agreement) was recorded in the United States Patent and Trademark Office on March 25, 2016, at Reel 5758 and Frame 0379; and

WHEREAS, a notice of the Security Interest with respect to the Patents (as defined in the Patent Security Agreement) was recorded in the United States Patent and Trademark Office on March 17, 2016, at Reel 38260 and Frame 341; and

WHEREAS, the Agent now desires to terminate and release its Security Interests in certain of the Patent Collateral and Trademark Collateral;

NOW, THEREFORE, for good and valuable consideration and upon the terms set forth in this Termination and Release, the Agent hereby states as follows:

1. Release of Security Interest. The Agent, on behalf of itself and the other Secured Parties, hereby terminates, releases and discharges its Security Interests in (a) the Patent Collateral listed on Schedule A and (b) the Trademark Collateral listed on Schedule B, and

hereby assigns back to the Pledgor any right, title or interest of the Agent or any other Secured Party in such Patent Collateral and Trademark Collateral, as applicable.

2. Further Assurances. The Agent hereby agrees to duly execute, acknowledge, procure and deliver any further documents and to do such other acts as may be reasonably necessary to effect the release of the Security Interest contemplated hereby.

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IN WITNESS WHEREOF, the undersigned has executed this Termination and Release by its duly authorized officer as of the date first above written.

UMB BANK, NATIONAL ASSOCIATION, as Collateral Agent

By: _____
Name: Anthony P. Hawkins
Title: Vice President

[Signature Page to Termination and Release – GTAT Corporation]

SCHEDULE A

Patents and Patent Applications

Owner	Title	Status	Patent/Pub. No.	Grant/Pub Date	App. No.	Filing Date
GTAT Corporation	High Temperature Furnace Insulation	Granted	US8821634	9/2/2014	13/069,027	3/22/2011
GTAT Corporation	Deposition System with a Rotating Drum	Granted	US8758580	6/24/2014	13/211,884	8/17/2011
GTAT Corporation	Method of Making Large Surface Area Filaments for the Production of Polysilicon in a CVD Reactor	Granted	US8647432	2/11/2014	13/186,579	7/20/2011
GTAT Corporation	Method and Apparatus for Refining Metallurgical Grade Silicon to Produce Solar Grade Silicon	Granted	US8329133	12/11/2012	12/607,773	10/28/2009
GTAT Corporation	Systems and Methods of Producing Trichlorosilane	Granted	US8298490	10/30/2012	12/614,269	11/6/2009
GTAT Corporation	System and Method for Crystal Growing	Granted	US8177910	5/15/2012	13/037,841	3/1/2011
GTAT Corporation	System and Method for Crystal Growing	Granted	US7918936	4/5/2011	11/875,078	10/19/2007
GTAT Corporation	Solidification of Crystalline Silicon From Reusable Crucible Molds	Granted	US7540919	6/2/2009	11/394,970	3/31/2006
GTAT Corporation	System and Method for Crystal Growing	Granted	US7344596	3/18/2008	11/212,027	8/25/2005
GTAT Corporation	Dry Conversion of High Purity Ultrafine Silicon Powder to Densified Pellet Form for Silicon Melting Applications	Granted	US7175685	2/13/2007	10/413,774	4/15/2003
GTAT Corporation	Making and Connecting Bus Bars on Solar Cells	Granted	US6620645	9/16/2003	09/993,587	11/16/2001
GTAT Corporation	Melting Pot with Silicon Protective Layers, Method for Applying Said Layer and the Use Thereof	Granted	US6165425	12/26/2000	09/355,813	8/4/1999
GTAT Corporation	Method and Apparatus for Synthesis and Growth of Semiconductor Crystals	Granted	US6019841	2/1/2000	09/046,917	3/24/1998
GTAT Corporation	Method for Purifying Silicon	Granted	US5972107	10/26/1999	08/919,895	8/28/1997
GTAT Corporation	Radiation Shielding for a CVD Reactor	Published	US2015/0184290	7/2/2015	14/142,982	12/30/2013
GTAT Corporation	Adjustable Pyrometer Mount with Removable Viewport Mechanism	Published	US2015/0153233	6/4/2015	14/488,495	9/17/2014
GTAT Corporation	Method of Annealing Sapphire	Published	US2015/0104376	4/16/2015	14/489,924	9/18/2014
GTAT Corporation	Product Cartridge for Transporting Product	Published	US2015/0104277	4/16/2015	14/489,674	9/18/2014
GTAT Corporation	Transporting Product from a Product Cartridge	Published	US2015/0101290	4/16/2015	14/489,719	9/18/2014
GTAT Corporation	Advanced Crucible Support and Thermal Distribution Management	Published	US2015/0093231	4/2/2015	14/488,501	9/17/2014
GTAT Corporation	Method of Automatically Measuring Seed Melt Back of	Published	US2015/0092041	4/2/2015	14/488,476	9/17/2014

Owner	Title	Status	Patent/Pub. No.	Grant/Pub Date	App. No.	Filing Date
	Crystalline Material					
GTAT Corporation	Method and Apparatus for Processing Sapphire	Published	US2015/0090245	4/2/2015	14/488,715	9/17/2014
GTAT Corporation	Automated Heat Exchanger Alignment	Published	US2015/0090181	4/2/2015	14/488,508	9/17/2014
GTAT Corporation	A Technique for Controlling Temperature Uniformity in Crystal Growth Apparatus	Published	US2015/0090179	4/2/2015	14/488,513	9/17/2014
GTAT Corporation	Method of Producing Monocrystalline Silicon	Published	US2015/0086464	3/26/2015	14/375,016	7/28/2014
GTAT Corporation	Bulk Silicon Carbide Having Low Defect Density	Published	US2015/0072101	3/12/2015	14/478,674	9/5/2014
GTAT Corporation	Apparatus for Producing Bulk Silicon Carbide	Published	US2015/0068457	3/12/2015	14/478,608	9/5/2014
GTAT Corporation	Method and Apparatus for Producing Bulk Silicon Carbide From a Silicon Carbide Precursor	Published	US2015/0068447	3/12/2015	14/478,512	9/5/2014
GTAT Corporation	Method and Apparatus for Producing Bulk Silicon Carbide Using a Silicon Carbide Seed	Published	US2015/0068446	3/12/2015	14/478,567	9/5/2014
GTAT Corporation	Method for Producing Bulk Silicon Carbide	Published	US2015/0068445	3/12/2015	14/478,432	9/5/2014
GTAT Corporation	Cold Filament Ignition System	Published	US2015/0044119	2/12/2015	14/452,724	8/6/2014
GTAT Corporation	A Method of Analyzing a Sapphire Article	Published	US2015/0037897	2/5/2015	14/451,915	8/5/2014
GTAT Corporation	A Method of Reducing the Thickness of a Sapphire Layer	Published	US2015/0037537	2/5/2015	14/452,068	8/5/2014
GTAT Corporation	A Mobile Electronic Device Cover Plate Comprising a Thin Sapphire Layer	Published	US2014/0355126	12/4/2014	14/288,989	5/28/2014
GTAT Corporation	High Temperature Furnace Insulation	Published	US2014/0338590	11/20/2014	14/447,031	7/30/2014
GTAT Corporation	Deposition System with a Rotating Drum	Published	US2014/0262765	9/18/2014	14/286,894	5/23/2014
GTAT Corporation	A Mobile Electronic Device Comprising a Cover Plate Having a Low Level of Inclusions	Published	US2014/0185202	7/3/2014	14/139,179	12/23/2013
GTAT Corporation	A Mobile Electronic Device Comprising a Multilayer Sapphire Cover Plate	Published	US2014/0162043	6/12/2014	14/100,838	12/9/2013
GTAT Corporation	A Mobile Electronic Device Comprising a Modified Sapphire	Published	US2014/0160649	6/12/2014	14/100,350	12/9/2013
GTAT Corporation	A Mobile Electronic Device Comprising an Ultrathin Sapphire Cover Plate	Published	US2014/0133074	5/15/2014	14/080,120	11/14/2013
GTAT Corporation	Growth Determination in the Solidification of a Crystalline Material	Published	US2014/0123891	5/8/2014	13/667,640	11/2/2012
GTAT Corporation	Purification of Trichlorosilane	Granted	US9162898	10/20/2015	13/667,277	11/2/2012
GTAT Corporation	Systems and Methods of Producing Trichlorosilane	Published	US2013/0052118	2/28/2013	13/659,154	10/24/2012
GTAT Corporation	Apparatus and Methods for Conversion of Silicon Tetrachloride from Trichlorosilane	Granted	US9217609 US2012/0328503	12/22/2015 12/27/2012	13/246,176	9/27/2011
GTAT Corporation	Heater Assembly for Crystal Growth Apparatus	Published	US2012/0312800	12/13/2012	13/489,675	6/6/2012
GTAT Corporation	Automated Vision System for a Crystal Growth Apparatus	Published	US2012/0282162	11/8/2012	13/418,665	3/13/2012
GTAT Corporation	Apparatus and Method for Producing a Multicrystalline Material	Published	US2012/0280429	11/8/2012	13/098,989	5/2/2011

Owner	Title	Status	Patent/Pub. No.	Grant/Pub Date	App. No.	Filing Date
	Having Large Grain Sizes					
GTAT Corporation	Hydrochlorination Heater and Related Methods Therefor	Published	US2012/0107216	5/3/2012	12/913,227	10/27/2010
GTAT Corporation	Heater and Related Methods Therefor	Published	US2012/0076714	3/29/2012	13/246,180	9/27/2011
GTAT Corporation	Crystal Growth Apparatus with Ceramic Coating and Methods for Preventing Molten Material Breach in a Crystal Growth Apparatus	Published	US2012/0048179	3/1/2012	13/205,155	8/8/2011
GTAT Corporation	System and Method of Semiconductor Manufacturing with Energy Recovery	Published	US2011/0318909	12/29/2011	12/826,446	6/29/2010
GTAT Corporation	Chuck and Bridge Connection Points for Tube Filaments in a Chemical Vapor Deposition Reactor	Published	US2011/0203101	8/25/2011	13/000,455	12/21/2010
GTAT Corporation	High-Temperature Process Improvements Using Helium Under Regulated Pressure	Published	US2011/0048316	3/3/2011	12/873,388	9/1/2010
GTAT Corporation	Increased Polysilicon Deposition in a CVD Reactor	Published	US2007/0251455	11/1/2007	11/413,425	4/28/2006
GTAT Corporation	Methods and Apparatus for Removal of Contaminant for CVD Reactors	Filed	None	None	13/660,174	10/24/2012
GTAT Corporation	System and Method of Semiconductor Manufacturing with Bell Jar Having Integrated Shell and Jacket	Filed	None	None	13/435,920	3/30/2012
GTAT Corporation	Advanced Crucible Support and Thermal Distribution Management	Filed			14/541,755	11/14/2014
GTAT Corporation	System and Method of Growing Silicon Ingots From Seeds in a Crucible and Manufacture of Seeds Used Therein	Filed			14/422,077	2/17/2015
GTAT Corporation	Liquid-Cooled Heat Exchanger	Filed			14/348,792	2/31/2014
GTAT Corporation	Reverse Circulation Fluidized Bed Reactor for Granular Polysilicon Production	Published	US2016/0002773	1/7/2016	14/322,351	7/2/2014
GTAT Corporation	Reactor Filament Assembly with Enhanced Misalignment Tolerance	Published	US2015/0211111	07/30/2015	14/166,879	1/29/2014
GTAT Corporation	An Electronic Device Comprising a Birefringent Material Layer	Filed			62/211,131	8/28/2015
GTAT Corporation	Chemical Vapor Deposition and Method and Apparatus	Filed			62/255,678	11/16/2015
GTAT Corporation	Systems and Methods for Generating Metal Oxide Coatings	PCT			PCT/US2015/016124	2/17/2015

SCHEDULE B

Trademark Applications and Registrations

Owner	Trademark	Status	Country	Reg. No.	Application No.	Filing Date	Registration Date
GTAT Corporation	HEM	Registered	USA	3,523,763	77/415,220	03/02/2008	10/28/2008
GTAT Corporation	(Crystal Design) 	Registered	USA	1,084,417	73/092,027	06/30/1976	02/07/1978
GTAT Corporation	Crystal Systems	Registered	USA	1,150,725	73/163,474	03/24/1978	04/14/1981
GTAT Corporation	SiClone	Pending	USA		86/220,468	03/13/2014	