505771545 11/13/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5818362

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RAVE LLC	04/02/2019
RAVE N.P., INC.	04/02/2019
RAVE DIAMOND TECHNOLOGIES INC.	04/02/2019

RECEIVING PARTY DATA

Name:	BRUKER NANO, INC.
Street Address:	430 S. CONGRESS AVENUE, SUITE 7
Internal Address:	RAVE MASK REPAIR BUSINESS UNIT
City:	DELRAY BEACH
State/Country:	FLORIDA
Postal Code:	33435

PROPERTY NUMBERS Total: 13

Property Type	Number
Application Number:	12808750
Application Number:	12556643
Application Number:	13886594
Application Number:	10324221
Application Number:	10886251
Application Number:	10403147
Application Number:	09660354
Application Number:	09441396
Application Number:	09886098
Application Number:	13897552
Application Number:	15453283
Application Number:	14189337
Application Number:	11336390

CORRESPONDENCE DATA

Fax Number: (202)861-1783

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.

505771545 REEL: 050997 FRAME: 0604

Phone: 2028611500

Email: patents@bakerlaw.com
Correspondent Name: BAKERHOSTETLER

Address Line 1: 1050 CONNECTICUT AVENUE, NW Address Line 2: WASHINGTON SQUARE, SUITE 1100

Address Line 4: WASHINGTON, D.C. 20036

ATTORNEY DOCKET NUMBER:	43031.0001
NAME OF SUBMITTER:	KENNETH J. SHEEHAN
SIGNATURE:	/Kenneth J. Sheehan/
DATE SIGNED:	11/13/2019

Total Attachments: 7

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PATENT REEL: 050997 FRAME: 0605

INTELLECTUAL PROPERTY ASSIGNMENT

This Intellectual Property Assignment (this "<u>Assignment</u>") is made as of April 2, 2019, by and among RAVE LLC, a California limited liability company (the "*Company*"), RAVE N.P., Inc., a Delaware corporation and wholly-owned subsidiary of the Company ("*RNP*"), and RAVE DIAMOND TECHNOLOGIES INC., a Delaware corporation and wholly-owned subsidiary of the Company ("*RDT*," and collectively with the Company and RNP, the "*Assignors*") as assignors, and BRUKER NANO, INC., an Arizona corporation (the "*Assignee*"), as assignee.

RECITALS

- A. The Assignors and Assignee, together with the holders of membership interests in the Company, have entered into that certain Asset Purchase Agreement dated as of March 25, 2019 (the "Purchase Agreement"), pursuant to the terms of which Assignors agreed to assign the Acquired Intellectual Property to Assignee, which includes, without limitation, the Intellectual Property set forth on Exhibit A attached hereto (collectively the "IP");
- B. Capitalized terms not otherwise defined herein shall have the meanings ascribed to them in the Purchase Agreement; and
- C. Pursuant to the terms of the Purchase Agreement, the Assignors and Assignee desire to enter into this Assignment.

AGREEMENT

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

- 1. Assignors hereby sell, assign, transfer, convey, and deliver to Assignee their entire right, title and interest in and to the IP, together with all rights, licenses and other agreements, if any, heretofore made by Assignors in respect of, or relating to, the IP, all goodwill associated therewith, all common law rights therein, and all income, royalties, rights to prepare derivative works, fees and payments, if any, now or hereafter due or payable in respect to the IP, including any rights to file an action and recover damages by reason of past infringement, misappropriation or other unauthorized use of the IP, with a right to sue for, and collect the same for its own use and behalf, and for the use and behalf of its successors, assigns, or other legal representatives.
 - 2. Assignee hereby accepts Assignors' assignment and transfer of the IP.
- 3. Assignors shall execute, acknowledge and deliver to Assignee all documents, instruments and agreements as may be necessary to make a record with any governmental authority (both foreign and domestic) or third parties of this Assignment and Assignee's ownership of all right, title and interest in, to and under the IP.
- 4. The execution and delivery of this Assignment shall not, in any way, affect, limit, supersede, modify, replace, amend, change, rescind, waive or exceed the rights and obligations of Assignors and Assignee under, or enlarge, restrict or otherwise modify the terms of the Purchase

4838-7155-8535.1

Agreement, including the warranties, covenants, agreements, conditions, representations or, in general any of the rights and remedies, and any of the obligations and indemnifications of any party set forth in the Purchase Agreement. In the event of any conflict or inconsistency between the terms of the Purchase Agreement and the terms hereof, the terms of the Purchase Agreement shall govern.

- 5. Should any term or provision of this Assignment be held to any extent unenforceable, invalid, or prohibited under law, then such provision shall be deemed restated to reflect the original intention of the parties as nearly as possible in accordance with applicable law and the remainder of this Assignment. The application of such term or provision to persons, property, or circumstances other than those as to which it is invalid, unenforceable, or prohibited, shall not be affected by such invalidity, unenforceability, or prohibition, and each term and provision of this Assignment shall be valid and enforceable to the fullest extent permitted by law. This Assignment may not be amended except by execution and delivery of an instrument in writing signed by officers of Assignors and Assignee on behalf of Assignors and Assignee.
- 6. This Assignment and all of the provisions in this Assignment shall be binding upon and inure to the benefit of the successors in interest and assigns of the parties.
- 7. This Assignment shall be governed by, and construed and interpreted in accordance with the laws of the State of California applicable to agreements made and to be performed entirely within such state, but excluding the conflicts of laws principles thereof.
- 8. Subject to Section 4 above, this Assignment constitutes the complete and exclusive statement of the agreement between the parties with respect to the subject matter of this Assignment, and this Assignment supersedes any prior oral or written communications, proposals, representations, and agreements. This Assignment and the obligations hereunder are not intended to confer any rights or remedies to any third party and are not intended to operate, in anyway, as an agreement for the benefit of any third party.
- 9. This Assignment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. An executed counterpart of this Assignment transmitted and received by facsimile or PDF shall be deemed for all purposes to be an original, executed counterpart hereof.

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IN WITNESS WHEREOF, the Assignors and Assignee have executed this Assignment as of the day and year first above written.

ASSIGNORS:

RAVE LLC
By: Barry Hopkins Title: PRESIDENT & CEO
RAVE N.P., INC.
Parent to the
Name: Barry Hopkins
Title: PRESIDENT & CEO
RAVE DIAMOND TECHNOLOGIES IN
By: Joney /kg/
Name: Barry Hopkins
Title: PRESIDENT & CEO
ASSIGNEE:
BRUKER NANO, INC.
By:
Name: Mark R. Munch, Ph.D.
·

[Signature Page to Intellectual Property Assignment]

IN WITNESS WHEREOF, the Assignors and Assignee have executed this Assignment as of the day and year first above written.

ASSIGNORS:
RAVE LLC
By:
Name:
Title:
RAVE N.P., INC.
By:
Name:
Title:
RAVE DIAMOND TECHNOLOGIES INC. By: Name: Title:
ASSIGNEE:
BRUKER NANO, INC.
By: Mull Whenel
Name: Mark R. Munch, Ph.D.
Title: Bruker Nano Group President

[Signature Page to Intellectual Property Assignment]

Exhibit A

See Attached.

4838-7155-8535.1

PATENT REEL: 050997 FRAME: 0610

Matter	and Patent Applications - RAVE LLC Name	Application	tive, 34	Issued	Patent	Status
310US/2020	Improved Scan Data Collection (Scan Data)	10/274,669	10/18/02		7,053,369	Active
320US/2040	Improved Scan Data Collection (Scan Data 2)	11/378,583	03/17/06		7,547,882	Active
1121US	Apparatus & Method for Direct Surface Cleaning (Direct)	12/188,564	08/08/08		8.182.609	Active
1122US	Wafer Fabrication Process (Direct Cont - Process)	13/475,997	05/20/12		8,562,749	Active
1141US	Apparatus & Method for Indirect Surface Cleaning (Indirect)	12/055,178	03/25/08	08/09/11	7,993,464	Active
1143A	Apparatus & Method for Indirect Surface Cleaning (1143 Appeal)	12/277,106	11/24/08		8,293,019	Active
1147EP	Apparatus & Method for Indirect Surface Cleaning (EU Indirect)	8796835.0	07/30/08	N/A	see matters 2051-4	Allowed
1148JP	Apparatus & Method for Indirect Surface Cleaning (JP Indirect)	2010-520148	07/30/08		5174910	Active
1150SG 1152KR	Apparatus & Method for Indirect Surface Cleaning (SG Indirect) Apparatus & Method for Modifying Optical Material Prop. (KR Phase)	201000882.9	07/30/08		159095	Active
1153JP	Apparatus & Method for Modifying Optical Material Prop. (AR Phase)	10-2010-7005271 2010-519997			10-1365315 5,358,572	Active Active
1154US	Apparatus & Method for Indirect Surface Cleaning (Indirect Cont - Lifetime)	13/657,847	10/22/12		8,613,803	Active
1155US	Apparatus & Method for Indirect Surface Cleaning (Indirect Cont - Wafer)	14/077,028	11/11/13		8,741,067	Active
1156US	Apparatus & Method for Indirect Surface Cleaning (Indirect Cont - Broad)	14/294,728			8,986,460	Active
1157US	Apparatus & Method for Indirect Surface Cleaning (Overlay)	14/656,206			9,285,674	Active
1158TW	Apparatus & Method for Indirect Surface Cleaning (TW Overlay)	105106919	03/07/15			Pending
1161JP	Apparatus and Method for Indirect Surface Cleaning (JP Overlay)	2017-548098	09/21/17			Pending
1162KR	Apparatus and Method for Indirect Surface Cleaning (KR Overlay)	10-2017-7027046	09/21/17	1		Pending
1163DE	Apparatus and Method for Indirect Surface Cleaning (DE Overlay)	11 2016001162.8	09/12/17		0450500	Pending
1170BE	Apparatus & Method for Modifying Optical Material Prop. (BE Phase)	8795203.2	08/11/08		2176708	Active
1171DE 1172NL	Apparatus & Method for Modifying Optical Material Prop. (DE Phase) Apparatus & Method for Modifying Optical Material Prop. (NL Phase)	8795203.2 8795203.2			2176708 2176708	Active
1180US	Vertical Indent Production Repair (VIPR)	11/898,837	09/17/07		7.829.360	Active Active
	Debris Removal in High Aspect Structures (Local Clean)	11/898,836	09/17/07		8,287,653	Active
	Debris Removal in High Aspect Structures (TW Local Clean)	97135684	09/17/08		1460773	Active
	Debris Removal in High Aspect Structures (JP Local Clean)	2010-525079	09/16/08		5,386,490	Active
1205KR	Debris Removal in High Aspect Structures (KR Local Clean)	10-2010-7008163	09/16/08		10-1428137	Active
	Debris Removal in High Aspect Structures (Local Clean Cont.)	13/652,114	10/15/12		8,696,818	Active
	Debris Removal in High Aspect Structures (LC CIP1-Fibril Structures)	15/011,411	01/29/16		,	Pending
	Debris Removal in High Aspect Structures (LC CIP2-Analysis Apparatus)	15/160,263	05/20/16			Pending
	Debris Removal in High Aspect Structures (DE Local Clean)	08832334.0	09/16/08	07/13/16	2198451	Active
	Debris Removal in High Aspect Structures (IT Local Clean)	08832334.0			2198451	Active
	Debris Removal in High Aspect Structures (IE Local Clean)	08832334.0			2198451	Active
	Debris Removal in High Aspect Structures (NL Local Clean) Debris Removal in High Aspect Structures (Switz, Local Clean)	08832334.0	09/16/08		2198451	Active
	Debris Removal in High Aspect Structures (GB Local Clean)	08832334.0 08832334.0	09/16/08		2198451 2198451	Active Active
	Debris Removal in High Aspect Structures (EU LC Div. of 1203EP)	16178942.5	07/12/16	N/A	N/A	Pending
	Debris Removal in High Aspect Structures (PCT LC CIP1-Fibril Structures)	PCT/US2017/015062		N/A	N/A	Pending
	Debris Removal in High Aspect Structures (PCT LC CIP1-Fibril Structures)	2018-539846	07/30/18	10/1	IWA	Pending
	Debris Removal in High Aspect Structures (PCT LC CIP1-Fibril Structures)	10-2018-7024622	08/27/18			Pending
	System & Method Improved Crosshatch Nanomach. (Enhanced Cobra)	12/487,227		08/23/11	8,003,283	Active
1222US	Method Fabricating High Aspect Ratio Nanostructure (Enh Cobra Cont)	13/213,532			8,334,084	Active
	Debris Removal in High Aspect Structures (LC CIP2-Analysis Apparatus)	2017-100801	05/22/17			Pending
	Debris Removal in High Aspect Structures (LC CIP2-Analysis Apparatus)	10-2017-0061709	05/18/17			Pending
	Debris Removal in High Aspect Structures (LC CIP2-Analysis Apparatus)	106114454	05/02/17	ļ.,		Pending
	Debris Removal in High Aspect Structures (LC CIP2-Analysis Apparatus)	17172132.7		N/A	N/A	Pending
	Debris Removal in High Aspect Structures (PCT LC CIP1-Fibril Structures) Debris Removal in High Aspect Structures (LC divisional from 1209)	17744875 TBD	08/27/18			Pending
	Debris Removal in High Aspect Structures (2nd LC divisional from 1209)	TBD				Pending Pending
	Apparatus & Method for Indirect Surface Cleaning (Indirect Cont)	15/048,774	02/19/16	03/07/17	9,588,420	Active
	Apparatus & Method for Indirect Surface Cleaning (EU Indirect - from 1147)	8796835.0			2178655	Active
	Apparatus & Method for Indirect Surface Cleaning (EU Indirect - from 1147)	8796835,0				Active
2053UNIK	Apparatus & Method for Indirect Surface Cleaning (EU Indirect - from 1147)	8796835.0			2178655	Active
	Apparatus & Method for Indirect Surface Cleaning (EU Indirect - from 1147)	8796835.0	05/01/17	09/18/18	2178655	Active
	App&Method Nondestructive Detect & ID Surface Cont.(RZ Analysis)	15/400,143	1/6/2017			Pending
	Apparatus and Method for Contamination Identification (RZ Analysis-JP)	2018-000960	1/9/2018			Pending
	Apparatus and Method for Contamination Identification (RZ Analysis-KR)	10-2018-0000738	1/3/2018			Pending
	Apparatus and Method for Contamination Identification (RZ Analysis-TW)	107100468	1/5/2018			Pending
	Apparatus and Method for Contamination Identification (RZ Analysis-UK) Apparatus and Method for Contamination Identification (RZ Analysis-DE)	1800199	1/5/2018			Pending Pending
	Debris Removal in High Aspect Structures (LC CIP3-Analysis Method)	10 2018 200 118.9 15/160,302	05/20/16			Pending Allowed
	Debris Removal in High Aspect Structures (LC CIP3-Analysis Method)		05/20/16			Pending
	Debris Removal in High Aspect Structures (LC CIP3-Analysis Method)		05/19/17			Pending
	Debris Removal in High Aspect Structures (LC CIP3-Analysis Method)		05/10/17			Pending
074EP	Debris Removal in High Aspect Structures (LC CIP3-Analysis Method)			N/A		Pending
080US A	Method & Apparatus for Pellicle Removal (LN2 aka CPR)					Active
	Method & Apparatus for Pellicle Removal (LN2)		8/31/16			Pending
	Method & Apparatus for Pellicle Removal (LN2)	10-2016-0124071	9/27/16			Pending
	Method & Apparatus for Pellicle Removal (LN2)		09/05/16			Pending
	Method & Apparatus for Pellicle Removal (LN2) Method and Apparatus for Pellicle Removal (LN2 divisional of 2080)			N/A	See matters 2090-6	Allowed
	Method & Apparatus for Pellicle Removal (LN2 divisional of 2080) Method & Apparatus for Pellicle Removal (LN2 - Divisional from 2081)		04/24/18			Pending Deading
	Method & Apparatus for Pellicle Removal (LN2 - Divisional from 2081)	TBD 10-2018-0124452	10/18/18			Pending Pending
	Method & Apparatus for Pellicle Removal (LN2 - Divisional from 2083)	TBD	10/10/10			Pending Pending
	Method & Apparatus for Pellicle Removal (LN2) (nat'l phase of 2084)		07/27/16	03/20/19	3,260,916	
	Method & Apparatus for Pellicle Removal (LN2) (nat'l phase of 2084)			03/20/19	3,260,916	
	Method & Apparatus for Pellicle Removal (LN2) (nat'l phase of 2084)					
	Method & Apparatus for Pellicle Removal (LN2) (nat'l phase of 2004)			03/20/19		Active
				03/20/19		Active
	Anthod & Annomius for Dollisia Damaral // NOV / - 18 - 1 / 000 ft			02/20/40 L	2 200 046	مىننەم ا
094IT N	Method & Apparatus for Pellicle Removal (LN2) (nat'l phase of 2084)			03/20/19		Active
094IT N 095NL N	Method & Apparatus for Pellicle Removal (LN2) (nat'l phase of 2084) Method & Apparatus for Pellicle Removal (LN2) (nat'l phase of 2084) Method & Apparatus for Pellicle Removal (LN2) (nat'l phase of 2084)	16181371.2	07/27/16	03/20/19 03/20/19	3,260,916	Active Active

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	RAVE NP Patents and Applications				6 Pending	37 Allowed/Active
Matter	Name	Country	App	Filed	Patent	Status
21501	Fluid Injection Assembly for Nozzles	U.S.	12/808,750	06/17/10	8,568,018	Issued 10/29/13
21503	Fluid Injection Assembly for Nozzles	Taiwan	097149944	12/19/08	1466729	Issued 1/1/15
21504	Fluid Injection Assembly for Nozzles	KR	10-2010-7016291	07/20/10	1506654	Issued 3/27/15
21540	CO2 Nozzies	U.S.	12/556643	09/10/09	8,454,409	Issued 6/4/13
21542	CO2 Nozzles	TW	99130241	10/01/10	1425556	Issued 2/1/14
21543	CO2 Nozzles	KR	10-2012-7009277	09/07/10	10-1792288	Issued 12/17
21550	CO2 Nozzles	US	13/886,594	05/03/13	8,801,504	Issued 8/12/14
21580	Method for selective metal film layer removal using CO jet spray	Canada	2422062	09/12/01	2,422,062	Issued 3/18/11
21822	Fluid assisted cryogenic cleaning	Singapore	200405615-6	ļ	106923	Issued 10/31/06
21823	Fluid assisted cryogenic cleaning	Taiwan	92113360	ļ	1278927	Issued 4/11/07
21842	Post-CMP cleaning ofwafer surfaces using comb. of aqueous & C		03819420.1		100377836C	Issued 4/2/08
21843	Post-CMP cleaning ofwafer surfaces using comb. of aqueous & C		2003-127199	ļ	3786651	Issued 3/31/06
21844	Post-CMP cleaning ofwafer surfaces using comb. of aqueous & C	<u> </u>	200500689-5	ļ	110342	Issued 1/31/07
21845	Post-CMP cleaning ofwafer surfaces using comb. of aqueous & C		92113357		1 249783	Issued 2/21/06
21861	Liquid-assisted cryogenic cleaning	U.S.	10/324,221	12/19/02	6,852,173	Issued 2/8/05
21862	Liquid-assisted cryogenic cleaning	U.S.	10/886,251	07/07/04	7,056,391	Issued 6/6/06
21881	Vapor-assisted cryogenic cleaning	U.S.	10/403,147	03/31/03	6,949,145	issued 9/27/05
21900	Method for selective metal film layer removal using CO jet spray	U.S.	09/660,354	09/12/00	6,500,758	Issued 12/31/02
21902	Method for selective metal film layer removal using CO jet spray	China	01815460.3		1815460.3	Issued 4/25/07
21903	Method for selective metal film layer removal using CO jet spray	Japan	2002-527554		4009533	issued 9/7/07
21904	Method for selective metal film layer removal using CO jet spray	Taiwan	90122519		172753	Issued 6/25/03
21905	Method for selective metal film layer removal using CO jet spray	Singapore	200301140-0		95341	Issued 10/31/05
21906	Method for selective metal film layer removal using CO jet spray	EP	01970888.2	09/21/01	1317767	Issued
21908	Method for selective metal film layer removal using CO jet spray	Germany	01970888.2		EP1317767	Issued 2/21/07
21909	Method for selective metal film layer removal using CO jet spray	France	01970888.2		EP1317767	Issued 2/21/07
21910	Method for selective metal film layer removal using CO jet spray	UK	01970888.2		EP1317767	Issued 2/21/07
21911	Method for selective metal film layer removal using CO jet spray	ireland	01970888.2		EP1317767	Issued 2/21/07
21912	Method for selective metal film layer removal using CO jet spray	Italy	01970888.2		EP1317767	issued 2/21/07
21913	Method for selective metal film layer removal using CO jet spray		01970888.2		EP1317767	Issued 2/21/07
22060	Apparatus and method for analysis of impurities in liquid CO2	U.S.	09/411,396	10/04/99	6,276,169	Issued 8/21/01
22061	Apparatus for analysis of impurities in liquid CO2	U.S.	09/886,098	06/22/01	6,405,560	Issued 6/18/01
22201	Contamination Removal App.&Method (Plasma Cont/) (Plasma2)	US	13/897,552	05/20/13	10,245,623	Issued 4/2/19
22203	Contamination Removal App.&Method (Plasma Cont/) (Plasma2)	TW	102117589	05/17/13	1632002	Issued 8/11/18
22204	Contamination Removal App.&Method (Plasma Cont/) (Plasma2)	JP	2015-512839	01/07/15	6,336,939	Issued 5/11/18
22205		KR	10-2014-1035484	12/17/14		Pending
22206	Contamination Removal App.&Method (Plasma Cont/) (Plasma2)	Germany	11 2013 002 561.2	12/18/14		Pending
22207		US	15/453,283	03/08/17		Pending
22208	Contamination Removal App.& Method (Plasma CIP) (Plasma3)	US	TBD	TBD		TBD
22221		US	14/189,337		9,822,903	Issued 11/21/17
22222		PCT	PCT/US2014/059213		N/A	PCT
22223	Smart Valve (JP)	JP	2015-559037	01/11/16	6,415,457	Issued 10/12/18
22224	· · · · · · · · · · · · · · · · · · ·	KR	10-2015-7026522	01/11/16		Pending
22225	Smart Valve (EPO)	EP	14753929.0	01/11/16	N/A	Pending
22100	System and Method for Scanning Boom Microscope	US	11/336,390	01/01/06	7,564,625	Issued 7/21/09

PATENT REEL: 050997 FRAME: 0612

RECORDED: 11/13/2019