

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5517668

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the NAME OF THE ASSIGNEE previously recorded on Reel 046468 Frame 0447. Assignor(s) hereby confirms the ASSIGNMENT OF ASSIGNOR'S INTEREST.
CONVEYING PARTY DATA	
Name	Execution Date
BWT PROPERTY INC	07/02/2018
B&W TEK PROPERTY, INC.	07/02/2018
BWT PROPERTY, INC.	07/02/2018
B&W TEK, INC.	07/02/2018
B&W TEK INC.	07/02/2018
B&W TEK, LLC	07/02/2018
QUN LI	07/02/2018
SEAN XIAOLU WANG	07/02/2018
XIN JACK ZHOU	07/02/2018
RECEIVING PARTY DATA	
Name:	B&W TEK LLC
Street Address:	1825 EYE STREET, NW
City:	WASHINGTON
State/Country:	D.C.
Postal Code:	20006
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	15721993
CORRESPONDENCE DATA	
Fax Number:	(415)683-5472
<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>	
Phone:	4156835472
Email:	Docketing.Rimonlaw@Clarivate.com
Correspondent Name:	RIMON PC
Address Line 1:	ONE EMBARCADERO CENTER
Address Line 4:	SAN FRANCISCO, CALIFORNIA 94111
ATTORNEY DOCKET NUMBER:	81-00001-US

NAME OF SUBMITTER:	LETAO QIN
SIGNATURE:	/Letao Qin/
DATE SIGNED:	05/10/2019
Total Attachments: 22 source=assignment-pat-46468-447#page1.tif source=assignment-pat-46468-447#page2.tif source=assignment-pat-46468-447#page3.tif source=assignment-pat-46468-447#page4.tif source=assignment-pat-46468-447#page5.tif source=assignment-pat-46468-447#page6.tif source=assignment-pat-46468-447#page7.tif source=assignment-pat-46468-447#page8.tif source=assignment-pat-46468-447#page9.tif source=assignment-pat-46468-447#page10.tif source=assignment-pat-46468-447#page11.tif source=assignment-pat-46468-447#page12.tif source=assignment-pat-46468-447#page13.tif source=assignment-pat-46468-447#page14.tif source=assignment-pat-46468-447#page15.tif source=assignment-pat-46468-447#page16.tif source=assignment-pat-46468-447#page17.tif source=assignment-pat-46468-447#page18.tif source=assignment-pat-46468-447#page19.tif source=assignment-pat-46468-447#page20.tif source=assignment-pat-46468-447#page21.tif source=assignment-pat-46468-447#page22.tif	

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5033488

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
BWT PROPERTY INC.	07/02/2018
B&W TEK PROPERTY, INC.	07/02/2018
BWT PROPERTY, INC.	07/02/2018
B&W TEK, INC.	07/02/2018
B&W TEK INC.	07/02/2018
B&W TEK, LLC	07/02/2018
QUN LI	07/02/2018
SEAN XIAOLU WANG	07/02/2018
XIN JACK ZHOU	07/02/2018
RECEIVING PARTY DATA	
Name:	B&W TEK LLC C/O BLANK ROME LLP
Street Address:	1825 EYE STREET, NW
City:	WASHINGTON
State/Country:	D.C.
Postal Code:	20006
PROPERTY NUMBERS Total: 28	
Property Type	Number
Patent Number:	7145651
Patent Number:	7218655
Patent Number:	7245369
Patent Number:	7245371
Patent Number:	7265830
Patent Number:	7366214
Patent Number:	7446877
Patent Number:	7545493
Patent Number:	8135249
Patent Number:	8159665
Patent Number:	8189975
Patent Number:	D677185

PATENT

Property Type	Number
Patent Number:	8699020
Patent Number:	8749793
Patent Number:	D748510
Patent Number:	9366634
Patent Number:	9766182
Patent Number:	9797776
Patent Number:	9816934
Patent Number:	9909923
Patent Number:	9952159
Patent Number:	9958395
Application Number:	14834491
Application Number:	15349510
Application Number:	15378156
Application Number:	15461613
Application Number:	15653636
Application Number:	15721993

CORRESPONDENCE DATA

Fax Number: (202)420-2201

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: 202-420-2200

Email: JonGrossman@BlankRome.com, AWeaver@BlankRome.com

Correspondent Name: BLANK ROME LLP

Address Line 1: 1825 EYE STREET, NW

Address Line 4: WASHINGTON, D.C. 20006

ATTORNEY DOCKET NUMBER:	119574-00100
NAME OF SUBMITTER:	JON D. GROSSMAN
SIGNATURE:	/Jon D. Grossman/
DATE SIGNED:	07/02/2018

Total Attachments: 19

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INTELLECTUAL PROPERTY ASSIGNMENT & CONFIRMATORY ASSIGNMENT

This Intellectual Property Assignment (this "Assignment") is made this 2nd day of July, 2018, by and between B&W TEK LLC, a Delaware limited liability company, ("Company" or "Assignee") on the one hand, and BWT Property Inc., a Delaware corporation (also known as and/or a related entity with B&W TEK Property, Inc., BWT Property, Inc., B&W Tek, Inc., B&W TEK Inc. and B&W TEK, LLC), Mr. Qun Li (residing in Newark, Delaware), and Mr. Sean Xiaolu Wang (residing in Wilmington, Delaware), Mr. Xin Jack Zhou (residing in Hockessin, Delaware) (collectively known as "Assignors") on the other hand.

WHEREAS, Assignors desire to assign, and Company desires to accept from Assignors, certain intangibles identified on Exhibit A attached hereto and all related rights (the "Assigned Intangibles").

NOW, THEREFORE, for the aggregate consideration of one dollar (\$1.00), the receipt and sufficiency of which is hereby acknowledged, Assignors hereby irrevocably assign, convey, and transfer to Company any and all of Assignors' Intellectual Property Rights in the Assigned Intangibles. For purposes hereof, "Intellectual Property Rights" is defined as all U.S. and foreign intellectual property, intellectual property rights and industrial property rights (throughout the universe, in all media, now existing or created in the future, for all versions and elements, in all languages, and for the entire duration of such rights) arising under statutory or common law, contract, or otherwise, and whether or not registered or otherwise perfected, including without limitation, all (a) patents, reissues of and reexamined patents, and patent applications, whenever filed and wherever issued, including without limitation, continuations, continuations-in-part, substitutes, and divisions of such applications and all priority rights resulting from such applications; (b) inventions, industrial designs, discoveries, improvements, ideas, designs, models, formulae, patterns, compilations, data collections, drawings, blueprints, CAD/engineering drawings, product manuals, manufacturing notes and machinery information, mask works, devices, methods, techniques, processes, know how, proprietary information, customer lists, software (including data and related documentation), and technical information, (c) rights associated with works of authorship, including without limitation, copyrights, moral rights, copyright applications, and copyright registrations, copyrightable works, and rights in databases and data collections; (d) rights and goodwill associated with trademarks, service marks, trade names, logos, brand slogans, trade dress, internet domain names, internet and world wide web uniform resource locators and addresses, other indicia of origin, and the applications for registration and registrations of such items; (e) rights relating to the protection of trade secrets and confidential information, confidential business information (including research and development, know-how, formulas, compositions, manufacturing and production processes and techniques, technical data, designs, drawings, specifications, customer and supplier lists, pricing and cost information, and business and marketing plans and proposals); (f) rights analogous to those set forth in this definition of Intellectual Property Rights and all other proprietary rights relating to the Assigned Intangibles, including all components, improvements, and derivatives thereof, whether completed or not; (g) divisions, continuations, renewals, reissues, revisions or equivalents or counterparts thereof and extensions of the foregoing (as and to the extent applicable) now existing, or later filed, issued, or acquired; and (h) causes of action, rights, and remedies arising under any of such rights that accrued prior to, on, or after the date of this Assignment, including the right to sue for past infringement damages and economic rights of

authors and inventors.

Assignors reserve no rights in any Assigned Intangibles. Assignors hereby waive any and all paternity, integrity, moral and other similar rights that Assignors may have now, or in the future, in the works of authorship that are embodied in the Assigned Intangibles. The rights assigned under this Assignment include, without limitation, the right to claim priority based on the filing date of the Assigned Intangibles under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Conventions, and all other treaties of like purposes.

Assignors authorize the Register of Copyrights of the United States, the U.S. Patent and Trademark Office, and any Official of any country or countries foreign to the United States whose duty it is to receive or register copyrights, patents, trademarks or applications therefore, to record Company as the owner of the intellectual property embodied in the Assigned Intangibles and to issue all registrations for said Assigned Intangibles, to be in the name of Company, as assignee of the Assigned Intangibles, for the sole use of Company, its successors, legal representatives, and assigns, in accordance with the terms of this Assignment.

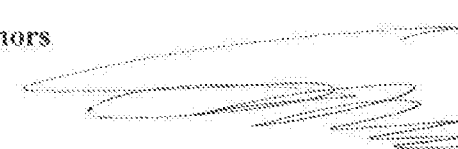
If Assignors have any rights in the Assigned Intangibles described in the definition of Intellectual Property Rights that cannot be assigned to Company in accordance with this Assignment, then Assignors grant to Company either (i) an exclusive (even as to Assignors), fully paid, royalty-free, perpetual, irrevocable, transferable, unlimited license with the right to sublicense and sue for infringement and other damages, throughout the universe, in all media, now existing or created in the future, for all versions and elements, and in all languages, to use, copy, distribute, create derivative works of, publicly perform, publicly display, digitally perform, practice the methods of, make, have made, import, export, offer for sale and sell such Assigned Intangibles for the entire duration of such rights(ii) such license rights that Company can convey or (iii) any assignable covenant not to sue. If Assignors have any such rights that cannot be assigned or licensed to Company in accordance with this Assignment, then Assignors waive the enforcement of such rights and both Parties agree that there is no obligation to assign such rights.

Assignors shall cooperate and take all steps, reasonably requested by Company to perfect, confirm, and protect Company's rights (including without limitation, Intellectual Property Rights), title, and interest in and to the Assigned Intangibles including without limitation, executing and delivering all documents, filing registration and assignment documents, and giving testimony.

[Signature Pages Follow]

IN WITNESS WHEREOF, Assignor duly executes and delivers this Assignment as of the date stated above.

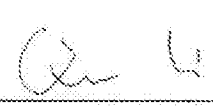
Assignors

By: 

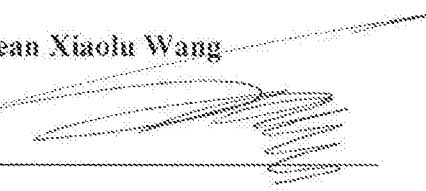
Name: SEAN XIAOLU WANG

Company Names: BWT Property Inc.,
B&W TEK Property, Inc., BWT Property,
Inc., B&W Tek, Inc., B&W TEK Inc. and
B&W TEK, LLC

Mr. Qun Li

By: 

Mr. Sean Xiaolu Wang

By: 

Mr. Xin Jack Zhou

By: 

ACKNOWLEDGED:

B&W TEK LLC

By: 

Name: JACK ZHOU

Title: CEO

Section 2.10(a)
Intellectual Property

PATENTS:

Patent Number	Title	Named Inventors	Application Number	Filing Date	Issuance Date
7,145,651	APPARATUS FOR FLUORESCENCE SUBTRACTED RAMAN SPECTROSCOPY	Qun Li, Sean Xiaolu Wang	11/227,432	9/19/2005	12/5/2006
7,218,655	SOLID STATE LASER INSENSITIVE TO TEMPERATURE CHANGES	Sean Xiaolu Wang, Qun Li, Rongsheng Tian	11/245,451	10/7/2005	5/15/2007
7,245,369	SPECTROSCOPIC APPARATUS USING SPECTRUM NARROWED AND STABILIZED LASER WITH BRAGG GRATING	Sean Xiaolu Wang, Xin Jack Zhou	10/985,981	11/12/2004	7/17/2007
7,245,371	LASER CURING APPARATUS WITH REAL-TIME MONITORING AND CONTROL	Sean Xiaolu Wang, Qun Li, Qingxiong Li	11/212,124	8/29/2005	7/17/2007
7,265,830	A NOVEL FOURIER TRANSFORM SPECTROMETER USING MULTI-ELEMENT MEMS	Sean Xiaolu Wang	11/064,956	2/25/2005	9/4/2007
7,366,214	DIODE-PUMPED SOLID-STATE LASER WITH SELF-MAINTAINED MULTI-DIMENSIONAL OPTIMIZATION	Dan Liu, Rongsheng Tian, Sean Xiaolu Wang	11/224,317	9/13/2005	4/29/2008
7,446,877	ALL-FIBER SPECTROSCOPIC OPTICAL SENSOR	Qun Li, Sean Xiaolu Wang	11/212,112	8/29/2005	11/4/2008
7,545,493	RAMAN SPECTROSCOPIC APPARATUS UTILIZING INTERNAL GRATING STABILIZED SEMICONDUCTOR LASER WITH HIGH SPECTRAL BRIGHTNESS	Sean Xiaolu Wang, Qun Li	11/608,237	12/7/2006	6/9/2009
8,135,249	FIBER SPECTROSCOPIC PROBE MOUNTABLE ON A MICROSCOPE	Qingxiong Li, Ryan E. Sullivan, Xin Jack Zhou, Sean Xiaolu Wang	12/611,138	11/3/2009	3/13/2012

8,159,665	APPARATUS AND METHODS FOR FLUORESCENCE SUBTRACTION IN RAMAN SPECTROSCOPY	Sean Xiaolu Wang, Qun Li	12/840,381	7/21/2010	4/17/2012
8,189,975	FIBER SPECTROSCOPIC PROBE MOUNTABLE ON A MICROSCOPE	Ryan E. Sullivan, Qingxiong Li, Xin Jack Zhou, Sean Xiaolu Wang	12/573,278	10/5/2009	5/29/2012
D677,185	HANDHELD RAMAN SPECTROMETER	Xin Jack Zhou, Daoguo Jiang, Jun Xu, Yuejin Xu, Sean Xiaolu Wang	29/408,648	12/15/2011	3/5/2013
8,699,020	HANDHELD RAMAN SPECTROMETER	Xin Jack Zhou, Daoguo Jiang, Sean Xiaolu Wang	13/711,668	12/12/2012	4/15/2014
8,749,793	APPARATUS AND METHODS FOR PERFORMING RAMAN SPECTROSCOPY IN SCATTERING MEDIUM	Sean Xiaolu Wang	13/359,758	1/27/2012	6/10/2014
D748,510	HANDHELD RAMAN SPECTROMETER	Xin Jack Zhou, Daoguo Jiang, Jun Xu, Yuejin Xu, Sean Xiaolu Wang	29/516,471	2/3/2015	2/2/2016
9,366,634	SUBSTRATE ENHANCED LASER-INDUCED BREAKDOWN SPECTROSCOPY (LIBS) APPARATUS	Sean Xiaolu Wang, Qun Li	14/918,839	10/21/2015	6/14/2016
9,766,182	LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS) APPARATUS WITH DUAL CCD SPECTROMETER	Xin Jack Zhou, Sean Xiaolu Wang, Qun Li	14/708,638	5/11/2015	9/19/2017
9,797,776	LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS) APPARATUS BASED ON HIGH REPETITION RATE PULSED LASER	Sean Xiaolu Wang, Qun Li	15/166,374	5/27/2016	10/24/2017
9,816,934	LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS) APPARATUS WITH	Qun Li, Sean Xiaolu Wang	15/412,357	1/23/2017	11/14/2017

	AUTOMATIC WAVELENGTH CALIBRATION				
9,909,923	LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS) APPARATUS BASED ON HIGH REPETITION RATE PULSED LASER	Sean Xiaolu Wang, Qun Li	14/845,980	9/4/2015	3/6/2018
9,952,159	LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS) APPARATUS FOR ANALYZING BIOLOGICAL SAMPLES	Sean Xiaolu Wang, Qun Li	15/235,170	8/12/2016	4/24/2018
9,958,395	LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS) APPARATUS FOR THE DETECTION OF MINERAL AND METAL CONTAMINATION IN LIQUID SAMPLES	Xin Jack Zhou, Sean Xiaolu Wang, Qun Li	15/424,931	2/6/2017	5/1/2018
EPO (Europe)					
Publication Number	Application Title	Named Inventors	Filing Date		
EP1726070	SPECTROSCOPIC APPARATUS USING SPECTRUM NARROWED AND STABILIZED LASER WITH BRAGG GRATING	Sean Xiaolu Wang, Xin Jack Zhou	11/12/2004		
FR 1663111	LIGHT DELIVERY AND COLLECTION DEVICE FOR MEASURING RAMAN SCATTERING OF A SAMPLE	Jun Zhao, Xin Jack Zhou, Sean Xiaolu Wang	12/22/2016		
DE 102016225808.7	LIGHT DELIVERY AND COLLECTION DEVICE FOR MEASURING RAMAN SCATTERING OF A SAMPLE	Jun Zhao, Xin Jack Zhou, Sean Xiaolu Wang	12/21/2016		
GB 1622069.1	LIGHT DELIVERY AND COLLECTION DEVICE FOR MEASURING RAMAN SCATTERING OF A SAMPLE	Jun Zhao, Xin Jack Zhou, Sean Xiaolu Wang	12/23/2016		
IPO					

(India)					
Publication Number	Application Title	Named Inventors	Filing Date		
201714039377	LIGHT DELIVERY AND COLLECTION DEVICE FOR MEASURING RAMAN SCATTERING OF A SAMPLE	Jun Zhao, Xin Jack Zhou, Sean Xiaolu Wang	11/3/2017		
JPO (Japan)					
Publication Number	Application Title	Named Inventors	Filing Date		
2017-22860	試料のラマン散乱を測定するための光伝送及び収集装置並びに方法	Jun Zhao, Xin Jack Zhou, Sean Xiaolu Wang	2/10/2017		
SIPO (China)					
Patent Number	Patent Title	Named Inventors	Filing Date	Issuance Date	Expiration Date
ZL 200920074459.0	光学透明狭缝及带有光学透明狭缝的分光仪 (spectrometer)	江道国	9/3/2009	5/26/2010	9/3/2019
ZL 201230244180.X	手持式拉曼光谱仪 (Handheld Raman)	周新, 江道国, 许军, 徐跃进, 王晓路	6/13/2012	1/23/2013	6/13/2022
ZL 201220293942.X	手持式拉曼光谱仪 (Handheld Raman)	周新, 江道国, 王晓路	6/21/2012	1/9/2013	6/21/2022
ZL 201520484523.8	手持式激光诱导击穿光谱分析仪 (Handheld LIBS)	王晓路, 刘丹, 许军, 张倩, 徐跃进	7/7/2015	11/18/2015	7/7/2025

ZL 20153023 9010.6	手持式激光诱导击穿光谱分析仪 (Handheld LIBS)	许军, 徐跃进	7/7/2015	12/23/2015	7/7/2025
ZL 20152048 5790.7	激光同轴光纤耦合器 (fiber coupling apparatus for spec)	许军, 张倩, 徐跃进	7/7/2015	12/9/2015	7/7/2025
ZL 20162134 3446.5	用于测量拉曼散射的光学探头 (See Through Raman)	赵军, 周新, 王晓路	12/8/2016	9/1/2017	12/8/2026
Utility Applicati ons					
Applicatio n Number	Application Title	Named Inventors	Filing Date		
14/834,4 91	VARIABLE REDUCTION METHOD FOR SPECTRAL SEARCHING	Jun Zhao, Xin Jack Zhou	8/25/2015		
15/349,5 10	LIGHT DELIVERY AND COLLECTION DEVICE FOR MEASURING RAMAN SCATTERING OF A SAMPLE	Jun Zhao, Xin Jack Zhou	11/11/2016		
15/378,1 56	LIGHT DELIVERY AND COLLECTION DEVICE FOR MEASURING RAMAN SCATTERING OF A SAMPLE	Jun Zhao, Xin Jack Zhou, Sean Xiaolu Wang	12/14/2016		
15/461,6 13	LIGHT DELIVERY AND COLLECTION DEVICE FOR PERFORMING SPECTROSCOPIC ANALYSIS OF A SUBJECT	Jun Zhao, Xin Jack Zhou, Sean Xiaolu Wang	3/17/2017		
15/653,6 36	APPARATUS AND METHOD FOR BIDIRECTIONAL RAMAN SPECTROSCOPY	Jun Zhao, Xin Jack Zhou, Sean Xiaolu Wang	7/19/2017		
15/721,9 93	REVERSE INTENSITY CORRECTION FOR RAMAN SPECTRAL LIBRARY SEARCH	Jun Zhao, Xin Jack Zhou	10/2/2017		

TRADEMARKS

USA- (US)					
Registration Number	Mark	Filing Date	Serial Number	Registration Date	Current Status
3,278,817	I-RAMAN	10/20/2006	77,025,859	8/14/2007	Active
3,278,815	I-SPEC	10/20/2006	77,025,828	8/14/2007	Active
3,622,220	MiniRam	9/2/2008	77,560,131	5/19/2009	Active
3,602,217	CLEANLAZE	9/2/2008	77,560,200	4/7/2009	Active
4,031,593	Cypher	2/21/2011	85,247,241	9/27/2011	Active
4,034,454	i-trometer	2/21/2011	85,247,263	10/4/2011	Active
4,031,594	SpectraRad	2/21/2011	85,247,279	9/27/2011	Active
4,031,595	Glacier	2/21/2011	85,247,292	9/27/2011	Active
4,144,261	NanoRam	6/29/2011	85,358,987	5/15/2012	Active
4,149,372	BWID	9/9/2011	85,418,356	5/29/2012	Active
4,149,373	BWIQ	9/9/2011	85,418,358	5/29/2012	Active
4,223,339	TrustPartner	12/28/2011	85,504,620	10/9/2012	Active
4,223,359	iSpec	1/9/2012	85,511,713	10/9/2012	Active
4,223,394	Exemplar	2/17/2012	85,545,819	10/9/2012	Active
4,860,008	PicoRam	4/5/2012	85,589,670	11/24/2015	Active
4,251,656	Your Spectroscopy Partner	4/23/2012	85,605,004	11/27/2012	Active
4,410,950	BWRam	2/26/2013	85,860,583	10/1/2013	Active
4,519,264	TacticID	6/26/2013	85,970,114	4/22/2014	Active
4,871,671	NanoLIBS	9/17/2014	86,397,060	12/15/2015	Active
5,350,890	i-LIBS	10/16/2014	86,425,249	12/5/2017	Active

4,907,279	BWSP	1/5/2015	86,495,165	3/1/2016	Active
4,794,381	BWQT	1/5/2015	86,495,178	8/18/2015	Active
4,826,892	BWSpec	2/25/2015	86,545,237	10/6/2015	Active
5,203,238	i-QCRx	5/17/2016	87,039,907	5/16/2017	Active
NA	TacNano	1/4/2017	87,288,572	NA	Allowed
NA	TacPico	1/4/2017	87,288,580	NA	Allowed
NA	TacID	1/4/2017	87,288,564	NA	Pending
5,454,868	TacticOne Response	3/30/2107	87,392,250	4/24/2018	Active
5,432,146	B&W TEK LLC	8/16/2017	87,571,679	3/27/2018	Active
NA	STRaman	7/14/2017	87,528,826	NA	Allowed
NA	PocketRam	11/27/2017	87,697,403	NA	Allowed
NA	MobileRam	11/27/2017	87,697,414	NA	Allowed
NA	QTRam	2/28/2018	87,813,905	NA	Pending
NA	QT-Sampler	2/28/2018	87,813,916	NA	Pending
NA	BW Tek	3/9/2018	87,827,520	NA	Pending
NA	BW Tek LLC	3/9/2018	87,827,561	NA	Pending
NA	Your Mobile Spectroscopy Partner	4/9/2018	87,869,078	NA	Pending
NA	BWAnalyst	4/11/2018	87,872,453	NA	Pending
NA	STRam	4/11/2018	87,872,474	NA	Pending
Trademarks in China					
Registration Number	Mark	Filing Date	Serial Number	Registration Date	Current Status
10,064,742	BWIQ	10/14/2011		12/14/2012	Active

11,989,518	必达泰克光电 BWTEK INC	1/4/2013		6/21/2014	Active
11,989,533	信赖伙伴 TRUST PARTNER	1/4/2013		6/21/2014	Active
14,384,919	TACTIC ID	4/15/2014		6/21/2015	Active
17,620,058	NANORAMAN	8/7/2015		9/28/2016	Active
17,620,143	I-RAMAN	8/7/2015		9/28/2016	Active

DOMAIN NAMES:

bwtek.cn
bwtek.com.cn
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bwtek.eu
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bwtek.tv
bwteklc.com
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mineralram.com
mini-raman.com
miniraman.com
mlibz.com
mobilelibs.com
mobileraman.com
mobilespectroscopy.com
mobilespectroscopy.net
mobilespectroscopy.org
mobilespectroscopy.tv
nanolibz.com
nanolibz.net
nanolibz.com
nanoram.com
nanoram.info
nanoram.org
nanoram.us
nanoramcollege.com
nanoramuniversity.com
picolibz.com
picolibz.net
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picoram.com
portable-raman.com
portableraman.com
raman-applications.com
raman-news.com
raman.tv
ramanapplications.com
ramancenter.com
ramancollege.com
ramancollege.org
ramaninstitute.com
ramaninstitute.org
ramannet.com
ramanslate.com
ramanslate.net
ramansolutioncenter.com
ramanu.org
ramanuniv.com
ramanuniv.org
ramanuniversity.com
ramanuniversity.org
ramanworld.com
slateraman.com
slateraman.net
tabletraman.com
tabletraman.net
tacticid.asia
tacticid.cn
tacticid.co.uk
tacticid.com
tacticid.com.cn
tacticid.eu
tacticid.in
tacticid.net
tacticid.org
tacticid.ru
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SPECTROMETERS and OEM:

Models/Series: BRC1xx; BRC7xx; BRC8xx; BRC642E (i-Trometer); BTC1xx; BTC6xx; BTC26x (Sol); BTC500E; BRC813P-SIC (OEM)

Production:

Product specific Firmware, Hardware Codes and USB Driver Codes; Software (BWSpec, BWID, BWIQ, SDKs); SOPs; User Manuals; Reference Documents; Production Forms; Labels; BOMs; Opto-Mechanical and Electrical Assembly Drawings and Part Drawings

Sales/Marketing:

Logos, Application Notes, Technical Data Sheets, Presentations, Spectrometer Price List, Reference Documents (Sales Fliers, Safety Sheets, Compliance Documents, etc), Videos (Product, Application, testimonial, Educational, Tech Support)

Regulatory

CE test certificate

Website:

<http://bwitek.com/technology/modular-spectrometers/>

PORTABLE RAMAN SYSTEMS:

Models/Series: BTR11x (MiniRam); BWS415 (i-Raman); BWS415-785H-GR (GemRam); BWS445 (innoRam); BWS465 (i-Raman Plus); BWS466 (i-Raman S); BWS475 i-Raman Pro; BWS475-HT (i-Raman Prime); BWS475-785H-CU (QTRam); BWS475-BSC (OEM); BWS475-ST (STRam); BWS485 (i-Raman EX);; OEM BWS497-785 (Safefood ID)

Production:

Product specific Firmware, Hardware Codes and USB Driver Codes; Software (BWSpec, BWID, BWIQ, BWQT; BWSP; GemID; various SDKs); SOPs; User Manuals; Reference Documents; Production Forms; Labels; BOMs; Opto-Mechanical and Electrical Assembly Drawings and Part Drawings; Customer Flash Drive

Sales/Marketing:

Logos, Application Notes, Technical Data Sheets, Presentations, Portable Raman Price List, Reference Documents (Sales Fliers, Safety Sheets, Compliance Documents, etc), Videos (Product, Application, testimonial, Educational, Tech Support)

Regulatory

CE test certificate, CDRH filing record

Application Services and Tech Support:

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BWSP_BWQT Installers; Installation Qualification; Operational Qualification; Spectral Libraries; Release Notes; Training Materials and Certificates

Website:

<http://bwitek.com/raman-technology/portable/>

HANDHELD RAMAN SYSTEMS:

Models/Series: BWS456 (NanoRam2); BWS457 (NanoRam TP); BWS458 (NanoRam Mini); BWS495 (TacPico); BWS496 (Tactic ID); BWS496-CSI (TacticID-CSI); BWS496-L (TacticID-LV); BWS496PS-785GP-T (TacticID Plus OEM); BWS496-TW (TacticID-TW); TacticID-GP-1064; InnoOEM - TacNano

Production:

Product specific Software (NanoRam NOS and NID, TacticID TOS and TID); SOPs; User Manuals; Reference Document; Production Forms; Labels; BOMs; Opto-Mechanical and Electrical Assembly Drawings and Part Drawings; Customer Flash Drive

Sales/Marketing:

Logos, Application Notes, Technical Data Sheets, Presentations, NanoRam and TacticID Price Lists, Reference Documents (Sales Fliers, Safety Sheets, Compliance Documents, etc), Videos (Product, Application, testimonial, Educational, Tech Support)

Regulatory

CE test certificate, CDRH filing record, Drop test report, IP68 test report

Application Services and Tech Support:

NanoRam and TacticID specific Design Qualification; Installation Qualification; Operational Qualification; Performance Qualification; Spectral Libraries; Upgrade Instructions; Release Notes; Training Materials and Certificates

Website:

<http://bwitek.com/technology/handheld-raman/>

SYSTEMS - VIS/NIR and LIBS :

Models/Series: BWS0xx (i-Spec); BWS600 (i-QCRx); BWS903 (i-Spec Plus); BWS910-BRU1; NanoLIBS; QH-Metal001P (OEM LIBS); SpectraRad

Production:

Product specific Firmware, Hardware Codes and USB Driver Codes; Software (BWSpec; i-QCRx™ Analysis; LOS and LID); SOPs; User Manuals; Reference Document; Production Forms; Labels; BOMs; Opto-Mechanical and Electrical Assembly Drawings and Part Drawings; Customer Flash Drive

Sales/Marketing:

Logos, Application Notes, Technical Data Sheets, Presentations, Systems Price List, Reference Documents (Sales Fliers, Safety Sheets, Compliance Documents, etc), Videos (Product, Application, testimonial, Educational, Tech Support)

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Regulatory

CE test certificate, CDRH filing record

Application Services and Tech Support:

NanoLIBS IQ and OQ (LOS-LID)

Websites:

<http://bwttek.com/technology/spectrometer-systems/>

<http://bwttek.com/products/nanolibs-q/>

LASER SYSTEMS

Models/Series: Models/Series: BRM (CleanLaze); BWF-1 & BWF-2 for non-medical (excluding BWF-5); BWR, BWN-532-OEM

Production:

User Manuals; SOP's; Production Forms; Labels; Opto-Mechanical and Electrical Assembly Drawings and Part Drawings; "Flex" operating software and SDK-L

Sales/Marketing:

Technical Data Sheets, Laser Price List, Compliance Documents

Regulatory

CE test certificate, CDRH filing record

Application Services and Tech Support:

CleanLaze® Software Development Kit

Website:

<http://bwttek.com/technology/lasers/>

ACCESSORIES:

Models/Series: Handheld Raman Accessories; Fiber Optic Portable Raman Accessories; Spectrometer Accessories including Fibers & Probes, Sample Holders, Integrating Spheres and Light Sources

Production:

User Manuals; SOP's; Production Forms; Labels; Opto-Mechanical and Electrical Assembly Drawings and Part Drawings

Sales/Marketing:

Logos, Technical Data Sheets, Accessories Pricing (embedded into related System Price Lists)

Regulatory

CE test certificate

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Application Services and Tech Support:

Application notes, related System User Manual;

Website:

<http://bwtek.com/technology/accessories/>

DATABASES FOR ASSIGNMENT:**Company Created:**

1. **Service Database (Microsoft Access):** Customer Return Material Authorization (RMA) issue, internal and external tracking, internal and external reporting and reason code analysis.
2. **Spectrometer Configuration Database (Microsoft Excel):** For Spectrometer Modules and Systems (including Raman). Used throughout production cycle and quality inspection to assign C-Codes, serial numbers, track product build status, specific product configurations, production test results, and record of work by employees (as a production traveler).
3. **Spectral Libraries** utilized in B&W Tek Raman and LIBS Portable and Handheld instrumentation and software.
4. **NCR record:** Report and track for non-conforming incoming materials for dispositions.
5. **FQC (Final Quality Control) Database for Handhelds (Microsoft Excel):** For Handheld Raman Systems (NanoRam and TacticID). Used throughout production cycle and quality inspection to assign Serial numbers, track product build status, specific product configurations, production test results, and record of work by employees (as a production traveler).
6. **Handheld FQC Form (Microsoft Excel):** Detailed test results and product configurations, the form contains precise formulas for product modeling as compared to factory specifications in final test prior to issuing and shipping to a Sales Order
7. **PTO Form and Log (Microsoft Excel, web-based):** For Human Resources, to track the issuance and approval by managers of Paid Time Off [as requested by their respective employees.
8. **Various General Admin related forms and procedures:** For accounting, HR, travel approval, reimbursement, and etc.
9. **Various Engineering Admin related forms and procedures:** For project management, test reporting, release noting, review meetings, and etc.
10. **Various Manufacturing Admin related forms and procedures:** For test records, change initiations, engineering to production transfer notes, and etc.

Other Key Management Systems and Databases:

1. **pcMRP for Windows (Software Arts Inc.) Server is resident, not web-based:** ERP system for Quoting, Customer Sales Order and supplier Purchase Order generation and processing, data fields and records, Inventory Management (tracking, receipts and disbursements), BOMs, internal Work Orders, Purchase Requests, Customer and Supplier address books and contact information.
2. **Salesforce: CRM (Customer Relationship Management) Software (web-based):** Customer and Distributor Account tracking including account details, contact info, Distributor Agreement details, Leads, Opportunities, Profile, Reports, Dashboards and Products. Utilized and managed by the global sales and marketing teams.
3. **Act-On Software (web-based):** For Marketing Department to manage accounts, leads, campaigns, results, communication, etc.
4. **Quickbooks:** Accounting software A/P and A/R, Invoicing, etc.
5. **Microsoft Outlook:** Primary tool for communication (emails, meetings, tasks, etc). B&W Tek LLC uses Microsoft applications almost exclusively.
6. **GoTo Meeting and GoTo Webinar:** GoTo Meeting is the tool used for internal and external web-based meeting. GoTo Webinar is the tool for Web-Based training of Distributors and Customers (monthly)

TRADE SECRETS/KNOW-HOW

Part Lists:

Comprehensive Parts Lists can be exported from PC/mRP for SH East and BWDE

Vendor Lists:

Vendor listing and associated procurement details can be exported from PC/mRP for SH East and BWDE

Source codes:

(Most source codes come with comments, release notes, programmers' explanations etc.)

- BWSpec for Windows in C++;
- BWSpec Mobile for Windows in C# and QT;
- BW Analyst for Windows in C# and QT;
- BWID for Windows in Borland C++;
- iSpec4 for Windows in C#;
- i-Reader data acquisition software in C#;
- BW SDK for Windows in C++, VB, Labview and etc;
- NOS for NanoRam models in Embedded Linux and QT;
- TOS for TacticID models in Embedded Linux and QT;
- LOS for NanoLIBS models in Embedded Linux and QT;

- NID data management software for NanoRam models on Windows PC in C# and/or QT;
- TID data management software for TacticID models on Windows PC in C# and/or QT;
- LID data management software for NanoLIBS models on Windows PC in C# and/or QT;
- TacPico and TacNano Embedded software Apps in Android;
- TOS Remote Apps in Android;
- BWQT distribution packages by private labeling partner;
- BWSP distribution packages by private labeling partner;
- BWIQ distribution package by exclusive partner;
- BSP packages for all TacticID, NanoRam and NanoLIBS devices;
- CPLD, FPGA, and MCU firmware codes for all spectrometers, TacticID, NanoRam, NanoLIBS and other devices;

Algorithms:

Peak finding; data smoothing; baseline subtractions; auto integration time; curve fitting; reverse Raman intensity corrections; See-Through material ID calculations; linearity corrections; p value modeling calculations for NanoRam; method transfer modeling calculations; mixture analysis via reverse search non-negative least square curve fitting; TacPac SERS library search and match algorithms; detector array pixel shift compensation algorithm; Raman verification method; in-field recalibration based on NIST traceable Raman shift standards; performance verification algorithm for handheld Raman device annual recertification; and etc.

Trade secrets and know-hows:

- High throughput spectrograph designs for i-Raman series and TacticID EX products;
- Detector array thematically sealed deeper cooling packaging process and procedures;
- CCD array Etaloning reduction techniques;
- Various alignment and optimization know-hows;
- Low Raman shift cut-on probe manufacturing know-hows;
- High throughput fiber Raman probe coupling mechanism know-hows;
- High throughput vial holder sampling device design and manufacturing;
- Industrial hardened Raman probe design and manufacturing;
- See-Through probe performance optimization know-hows;
- Immersion probe alignment know-hows;
- Optical parts performance verification setups and know-hows;
- 2D detector array bad pixel detection and mapping know-hows for SNR improvements;
- Stray light reduction know-hows;
- Fiber terminations and polishing know-hows;
- Low void fiber probe manufacturing know-hows;
- Know-hows in building broadband spectrometer systems by use of multiple coverage modules;
- NIR data processing and calibration know-hows;
- Dark field and other specialty probe design and manufacturing know-hows;
- Fluorescence and UV spectrometry know-hows;
- UV Raman design and development know-hows and secrets;

- Process imaging and Raman monitoring system design and development know-hows;
- Method validation and other compliancy related know-hows;
- Various microcontrollers, analog and digital electronics design and manufacturing know-hows;
- Optical ray tracing, design, optimization, and manufacturing know-hows;
- Industrial designs and ruggedized handheld device packaging know-hows.