

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3924020

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ROLITH, INC.	05/14/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	METAMATERIAL TECHNOLOGIES USA, INC.
<b>Street Address:</b>	5880 WEST LAS POSITAS BOULIVARD, SUITE 51
<b>City:</b>	PLEASANTON
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94588
<b>PROPERTY NUMBERS Total: 15</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	8518633
Patent Number:	8182982
Patent Number:	8192920
Patent Number:	8334217
Patent Number:	8318386
Patent Number:	8425789
Patent Number:	9069244
Patent Number:	9116430
Patent Number:	9244356
Application Number:	13416716
Application Number:	13546436
Application Number:	13756348
Application Number:	13756370
Application Number:	14521375
PCT Number:	US2014039602
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(510)668-0239
<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>	
<b>Phone:</b>	510-668-0965

**Email:** jessica@jdipatent.com  
**Correspondent Name:** JOSHUA D. ISENBERG  
**Address Line 1:** 809 CORPORATE WAY  
**Address Line 4:** FREMONT, CALIFORNIA 94539

**ATTORNEY DOCKET NUMBER:** RO-000

**NAME OF SUBMITTER:** JOSHUA D. ISENBERG

**SIGNATURE:** /Joshua D. Isenberg, Reg. No. 41088/

**DATE SIGNED:** 06/17/2016

**Total Attachments: 7**

source=Assign-patents-BK#page1.tif  
source=Assign-patents-BK#page2.tif  
source=Assign-patents-BK#page3.tif  
source=Assign-patents-BK#page4.tif  
source=Assign-patents-BK#page5.tif  
source=Assign-patents-BK#page6.tif  
source=Assign-patents-BK#page7.tif

**ASSIGNMENT OF PATENTS**

**BETWEEN :**

**ROLITH, INC.**, a corporation incorporated under the laws of the State of Delaware

(the "Assignor")

- and -

**METAMATERIAL TECHNOLOGIES USA, INC.**, a corporation incorporated under the laws of the State of Delaware

(the "Assignee")

**CONTEXT:**

- A. The Assignor is the owner of all patents and patent applications that are set out in Schedule A to this Assignment (the "Patents").
- B. The Assignee is a wholly-owned subsidiary of Metamaterial Technologies Inc., a Canadian corporation ("MTI Canada").
- C. The Assignor has agreed to transfer the entire ownership of the Patents to the Assignee pursuant to an asset purchase agreement between the Assignor and MTI Canada dated \_\_\_\_\_, 2016.

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

**1. Assignment**

The Assignor hereby confirms the sale, assignment, and transfer, or to the extent necessary, hereby sells, assigns and transfers to Assignee, its successors and assigns, the Assignor's entire right, title and interest in and to the inventions as set forth in the Patents, in Canada, the United States of America, and all foreign countries, including:

- 1.1 all continuations, continuations-in-part, divisions, renewals, extensions and reissues of any of the Patents;
- 1.2 all letters patent which may be granted with respect to patent applications that form part of the Patents;
- 1.3 the right to claim all benefits and priority rights with respect to the Patents under any applicable convention; and
- 1.4 the right to sue for all past and future infringements of, and to collect all past and future damages and royalties accruing from, any of the Patents.

**2. Further Assurances**

The Assignor agrees to execute, upon request, any further papers that may be necessary or desirable to enable the Assignee or its successors and assignees (as applicable), to file and prosecute any patent application forming part of the Patents, and to vest in the Assignee the exclusive title to the Patents.

**3. Commissioner of Patents**

The Assignor authorizes and requests that all Patent Offices, as applicable, record this Assignment to the Assignee as assignee of the Assignor's entire interest, and covenants that it has full right to convey the entire interest assigned in this Assignment, and that it has not executed, and will not execute, any agreements in contravention of this Assignment.

**4. Enurement**

This assignment will enure for the benefit of the Assignee and its successors and assignees and will be binding upon each of the Assignor and their respective heirs, executors, administrators, successors, assigns and legal representatives.

**5. Appointment as Attorney**

The Assignor irrevocably appoints the Assignee as the Assignor's attorney-in-fact, with full authority in the place of the Assignor and in the name of the Assignor, by the Assignee or otherwise, to take any action and to execute any instrument which the Assignee may deem necessary or advisable to accomplish the purposes of this Assignment, and to make any filings as appropriate, to effect the full and complete assignment as contemplated under this Assignment. This appointment, coupled with an interest, is irrevocable by the Assignor and will not be revoked by the insolvency or bankruptcy of the Assignor or by the dissolution, liquidation or other termination of the existence of the Assignor or for any other reason.

**6. Correction of Errors**

The undersigned authorizes the firm of Gowling WLG (Canada) LLP to correct errors in this Assignment or to insert any further identification or other information necessary or desirable to make this Assignment suitable for recordal in the Canadian Patent Office.

This Assignment has been executed below by the undersigned:

Date: \_\_\_\_\_, 2016

**ROLITH, INC.**

Per: \_\_\_\_\_

Name: Boris Kobrin, Ph.D.

Title: President & CEO

*I have authority to bind the corporation.*

State of ●

County of ●

}

I, ●, a notary public in and for, and residing in the said County in the State aforesaid, DO HEREBY CERTIFY, that Boris Kobrin, Ph.D., the President & CEO of ROLITH, INC. is personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person, and acknowledged that he signed, sealed and delivered said instrument as the free and voluntary act of Boris Kobrin, Ph.D., the President & CEO of ROLITH, INC. for the uses and purposes therein set forth.

GIVEN under my hand and notarial seal, this ● day of ●, 2016.

\_\_\_\_\_  
Notary Public

## SCHEDULE A

Country	Title	Status	Inventor(s)	Application Number/ Filing Date	Patent No./ Issue Date
Australia	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Abandoned	KOBRIN, Boris; VOLF, Boris; LANDAU, Igor	2008348353 18-11-2008	-
China	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Pending	KOBRIN, Boris; VOLF, Boris; LANDAU, Igor	200880124519.3 09-07-2010	-
Europe	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Pending	KOBRIN, Boris; VOLF, Boris; LANDAU, Igor	08871196.5 06-08-2010	-
India	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Pending	KOBRIN, Boris; VOLF, Boris; LANDAU, Igor	1256/MUMNP/2010 14-06-2010	-
Japan	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Issued	KOBRIN, Boris; VOLF, Boris; LANDAU, Igor	2010-543093 29-07-2010	5102879 12-19-2012
Korea	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Pending	KOBRIN, Boris; VOLF, Boris; LANDAU, Igor	10-2010-7018711 23-08-2010	-
Mexico	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Abandoned	KOBRIN, Boris; VOLF, Boris; LANDAU, Igor	MX/a/2010/007954 21-07-2010	-
Russia	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Issued	KOBRIN, Boris; VOLF, Boris; LANDAU, Igor	2010134893 20-8-2010	RU0002214359
Taiwan	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Issued	KOBRIN, Boris; VOLF, Boris; LANDAU, Igor	97144514 18-11-2008	15-18-27
United States	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Issued	KOBRIN, Boris; VOLF, Boris; LANDAU, Igor	12/384,219 01-04-2009	8518633 08-27-2013
United States	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Published	KOBRIN, Boris	13/416,716 09-03-2012	-
United States	LARGE AREA NANOPATTERNING METHOD AND APPARATUS	Abandoned	KOBRIN, Boris; MCMACKIN, Jan	13/553,602 07-19-2012	-
United States	PATTERNING OF HARD-TO-DRY-ETCH SUBSTRATES	Abandoned	KOBRIN, Boris	13/564,637 08-01-2012	-
United States	HIGH ASPECT RATIO PATTERNING USING NEAR-FIELD OPTICAL LITHOGRAPHY WITH TOP SURFACE IMAGING	Abandoned	RENALDO, Alfred; KOBRIN, Boris	13/749,376 01-24-2013	-
United States	METHOD AND DEVICE FOR PATTERNING A DISK	Issued	KOBRIN, Boris	12/384,167 01-04-2009	8182982 05-22-2012
United States	METHOD AND APPARATUS FOR PATTERNING A DISK	Abandoned	KOBRIN, Boris	13/472,345 15-05-2012	-

EDC\_LAW\_14535258

United States	LITHOGRAPHY METHOD	Issued	KOBRIN, Boris	12/386,899 24-04-2009	8192920 06-05-2012
United States	MATERIAL DEPOSITION OVER TEMPLATE	Issued	KOBRIN, Boris	12/455,938 08-06-2009	8334217 12-18-2012
United States	FABRICATION OF NANOSTRUCTURED DEVICES	Issued	KOBRIN, Boris	12/462,625 06-08-2009	8318386 11-27-2012
United States	METHOD AND APPARATUS FOR ANISOTROPIC ETCHING	Issued	KOBRIN, Boris	12/587,078 01-16-2009	8425789 04-23-2013
Australia	NANOPATTERNING METHOD AND APPARATUS	Closed	KOBRIN, Boris	2011205582 09-08-2012	
China	NANOPATTERNING METHOD AND APPARATUS	Published	KOBRIN, Boris	201180005881 12-07-2012	-
Europe	NANOPATTERNING METHOD AND APPARATUS	Published	KOBRIN, Boris	11733170.2 13-08-2012	-
India	NANOPATTERNING METHOD AND APPARATUS	Closed	KOBRIN, Boris	1897/MUMNP/2012 02-08-2012	
Japan	NANOPATTERNING METHOD AND APPARATUS	Published	KOBRIN, Boris	2012-548955 11-07-2012	-
Korea	NANOPATTERNING METHOD AND APPARATUS	Issued	KOBRIN, Boris	10-2012-7021047 10-08-2012	1430849
Mexico	NANOPATTERNING METHOD AND APPARATUS	Closed	KOBRIN, Boris	MX/a/2012/008072 11-07-2012	
Russia	NANOPATTERNING METHOD AND APPARATUS	Published	KOBRIN, Boris	2012134344 10-08-2012	-
United States	NANOPATTERNING METHOD AND APPARATUS	Allowed	KOBRIN, Boris	13/546,436 11-07-2012	-
Australia	MASK FOR NEAR-FIELD LITHOGRAPHY AND FABRICATION THE SAME	Closed	KOBRIN, Boris	2011293834 06-02-2013	
China	MASK FOR NEAR-FIELD LITHOGRAPHY AND FABRICATION THE SAME	Published	KOBRIN, Boris	2011800407296 22-12-2013	-
Europe	MASK FOR NEAR-FIELD LITHOGRAPHY AND FABRICATION THE SAME	Published	KOBRIN, Boris	11820330.6 23-03-2013	-
Japan	MASK FOR NEAR-FIELD LITHOGRAPHY AND FABRICATION THE SAME	Pending	KOBRIN, Boris	2013-525922 20-02-2013	-
Japan	MASK FOR NEAR-FIELD LITHOGRAPHY AND FABRICATION THE SAME	Pending	KOBRIN, Boris	2014-208273 09-10-2014	-
Korea	MASK FOR NEAR-FIELD LITHOGRAPHY AND FABRICATION THE SAME	Issued	KOBRIN, Boris	10-2013-7005408 28-02-2013	101520196
Russia	MASK FOR NEAR-FIELD LITHOGRAPHY AND FABRICATION THE SAME	Issued	KOBRIN, Boris	2013112860 23-03-2013	2013112860 05-07-2015

Taiwan	MASK FOR NEAR-FIELD LITHOGRAPHY AND FABRICATION THE SAME	Pending	KOBRIN, Boris	100129948 22-08-2011	-
United States	MASK FOR NEAR-FIELD LITHOGRAPHY AND FABRICATION THE SAME	Issued	KOBRIN, Boris	13/767,639 14-02-2013	9069244 06-30-2015
United States	PLASMONIC LITHOGRAPHY USING PHASE MASK	Issued	KOBRIN, Boris; BARNARD, Edward	14/229,762 28-03-2014	9116430 08-25-2015
United States	CYLINDRICAL MASTER MOLD AND METHOD OF FABRICATION	Published	KOBRIN, Boris MCMACKIN, Ian	13/756,348 31-01-2013	-
United States	CYLINDRICAL MASTER MOLD ASSEMBLY FOR CASTING CYLINDRICAL MASKS	Published	KOBRIN, Boris MCMACKIN, Ian	13/756,370 31-01-2013	-
Taiwan	CYLINDRICAL MASTER MOLD ASSEMBLY FOR CASTING CYLINDRICAL MASKS	Pending	KOBRIN, Boris MCMACKIN, Ian	102115733 02-05-2013	-
China	CYLINDRICAL POLYMER MASK AND METHOD OF FABRICATION	Published	KOBRIN, Boris; SEITZ, Oliver; RICHARDSON, Bruce; MCMACKIN, Ian; ARYAL, Mukti; GRIGSBY, Bryant	2013800354620 01-01-2015	-
Japan	CYLINDRICAL POLYMER MASK AND METHOD OF FABRICATION	Pending	KOBRIN, Boris; SEITZ, Oliver; RICHARDSON, Bruce; MCMACKIN, Ian; ARYAL, Mukti; GRIGSBY, Bryant	2015-510367 31-10-2014	-
Korea	CYLINDRICAL POLYMER MASK AND METHOD OF FABRICATION	Pending	KOBRIN, Boris; SEITZ, Oliver; RICHARDSON, Bruce; MCMACKIN, Ian; ARYAL, Mukti; GRIGSBY, Bryant	10-2014-7030846 03-11-2014	-
United States	CYLINDRICAL POLYMER MASK AND METHOD OF FABRICATION	Pending	KOBRIN, Boris; SEITZ, Oliver; RICHARDSON, Bruce; MCMACKIN, Ian; ARYAL, Mukti; GRIGSBY, Bryant	14/521,375 22-10-2014	-
United States	TRANSPARENT METAL MESH AND METHOD OF MANUFACTURE	Issued	KOBRIN, Boris MCMACKIN, Ian	14/244,803 03-04-2014	9244356 01-26-2016
PCT	ANTI-COUNTERFEITING FEATURES AND METHODS OF FABRICATION AND DETECTION	Published	KOBRIN, Boris	PCT/US2014/039602	-



# CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )

County of Alameda )

On 05/14/2016 before me, Vrushali M. Ukidave - Notary Public  
(Please insert name and title of the Officer)

personally appeared Boris V. Kobrin  
 who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

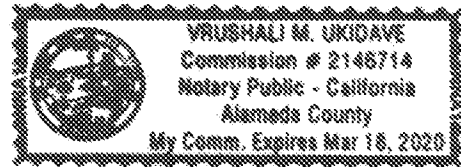
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

*Vrushali M. Ukidave*

Notary Public Signature

(Notary Public Seal)



### ADDITIONAL OPTIONAL INFORMATION

#### DESCRIPTION OF THE ATTACHED DOCUMENT

Assignment of Patents

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages 6 Document Date 5/14/2016

#### CAPACITY CLAIMED BY THE SIGNER

- Individual (s)  
 Corporate Officer

(Title)

- Partner(s)  
 Attorney-in-Fact  
 Trustee(s)  
 Other \_\_\_\_\_

### INSTRUCTIONS FOR COMPLETING THIS FORM

*This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.*

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~ - is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - ❖ Additional information is not required but could help to ensure this acknowledgment is not unused or attached to a different document.
  - ❖ Indicate title or type of attached document, number of pages and date.
  - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the sign **PATENT** with a staple