

## PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

EPAS ID: PAT6370768

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SONGBIN GONG	05/14/2019
RUOCHEN LU	06/10/2019
JOHN ANDREW KROL	06/11/2019
LIUQING GAO	05/23/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS
<b>Street Address:</b>	352 HENRY ADMINISTRATION BUILDING
<b>Internal Address:</b>	506 SOUTH WRIGHT STREET
<b>City:</b>	URBANA
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	61801
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	17081377
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	(973) 597-2500
<b>Email:</b>	smacdonald@lowenstein.com
<b>Correspondent Name:</b>	LOWENSTEIN SANDER LLP
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<b>Address Line 4:</b>	ROSELAND, NEW JERSEY 07068
<b>ATTORNEY DOCKET NUMBER:</b>	30831.76 (L0051C)
<b>NAME OF SUBMITTER:</b>	NATHAN O. GREENE, REG 56,956
<b>SIGNATURE:</b>	/Nathan O. Greene/
<b>DATE SIGNED:</b>	10/27/2020
<b>Total Attachments: 5</b>	
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**ASSIGNMENT**

WHEREAS, Songbin Gong, Ruochen Lu, John Andrew Krol, and Liuqing Gao, hereinafter called the "Assignors," have made the invention described in the United States patent application entitled **FREQUENCY INDEPENDENCE FOR SYNTHESIS WITHIN PROGRAMMABLE NON-RECIPROCAL NETWORK CIRCUIT**, which was filed as U.S. Application No. 16/396,024, on April 26, 2019, which claims priority to United States Provisional Application No. 62/663,523, entitled **FREQUENCY INDEPENDENT FRAMEWORK FOR SYNTHESIS OF PROGRAMMABLE NON-RECIPROCAL NETWORK**, filed April 27, 2018;

WHEREAS, The Board of Trustees of the University of Illinois, a body corporate and politic having a place of business at 352 Henry Administration Building, 506 South Wright Street, Urbana, Illinois 61801, hereinafter called the "Assignee," desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patents which may be obtained for said invention, as set forth below;

NOW, THEREFORE, in consideration of valuable and legally sufficient consideration, the receipt of which by the Assignors from the Assignee is hereby acknowledged, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignors hereby covenant and agree, for both the Assignors and the Assignors' legal representatives, that the Assignors will assist the Assignee in the prosecution of the patent application identified above; in the making and prosecution of any other patent applications that the Assignee may elect to make covering the invention identified above; in vesting in the Assignee like exclusive title in and to all such other patent applications and patents; and in the prosecution of any interference which may arise involving said invention, or any such patent application or patent; and that the Assignors will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Assignment.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.

Dated: 05/14/2019  
Songbin Gong

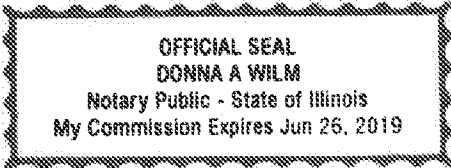
STATE OF Illinois )  
  ) ss.  
COUNTY OF Champaign )

I, Donna A. Wilms, a Notary Public in and for the County and State aforesaid, do hereby certify that Songbin Gong, 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 the said instrument as his free and voluntary act for the uses and purposes therein set forth.

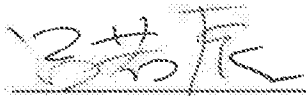
IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this 14 day of May, 2019.

Donna A. Wilms  
Notary Public

My Commission Expires:  
June 26, 2019




Dated: June 10th, 2019

  
\_\_\_\_\_  
Ruochen Lu

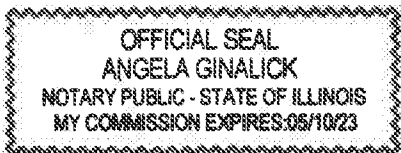
STATE OF Illinois )  
  ) ss.  
COUNTY OF Champaign )

I, Angela Ginalick a Notary Public in and for the County and State aforesaid, do hereby certify that Ruochen Lu, 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 the said instrument as his free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this 10th day of June, 2019.

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

My Commission Expires:  
5/10/23



Dated: 11-JUN-2019

John Andrew Krol  
John Andrew Krol

STATE OF WI )  
COUNTY OF Waukesha ) ss.

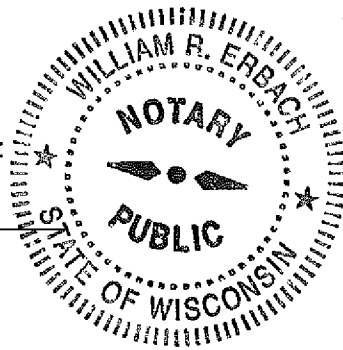
I, William R. Erbach a Notary Public in and for the County and State aforesaid, do hereby certify that John Andrew Krol, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this 11 day of June, 2019.

William R. Erbach  
Notary Public

My Commission Expires:

02/16/2022



Dated: 05/23/2019

Liuding Gao  
Liuding Gao

STATE OF Illinois )  
 ) ss.  
COUNTY OF Champaign )

I, Donna A. Wilm a Notary Public in and for the County and State aforesaid, do hereby certify that Liuding Gao, 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 the said instrument as his free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this 23 day of May, 2019.

Donna A. Wilm  
Notary Public

My Commission Expires:

June 26, 2019

