

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3699964

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
BRUCE W. WESSELS	08/05/2013
JOSEPH S. FRIEDMAN	07/31/2013
GOKHAM MEMIK	08/27/2013
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	NORTHWESTERN UNIVERSITY
<b>Street Address:</b>	633 CLARK STREET
<b>City:</b>	EVANSTON
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	60208
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14997887
<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>	773-570-3330
<b>Email:</b>	docketing@kandrip.com
<b>Correspondent Name:</b>	KLINTWORTH & ROZENBLAT IP LLC AND NORTHW
<b>Address Line 1:</b>	850 W. JACKSON BLVD
<b>Address Line 2:</b>	SUITE 525
<b>Address Line 4:</b>	CHICAGO, ILLINOIS 60607
<b>ATTORNEY DOCKET NUMBER:</b>	NWN01-017-US-DIV
<b>NAME OF SUBMITTER:</b>	VINCENT J. GNOFFO
<b>SIGNATURE:</b>	/Vincent J. Gnoffo/
<b>DATE SIGNED:</b>	01/18/2016
<b>Total Attachments: 3</b>	
source=Signed_Assignment#page1.tif	
source=Signed_Assignment#page2.tif	
source=Signed_Assignment#page3.tif	

**ASSIGNMENT**

WHEREAS, WE, Bruce W. Wessels, Joseph S. Friedman, and Gokhan Memik (hereinafter collectively referred to as ("ASSIGNORS")) have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of U.S. Provisional Patent Application: EMITTER-COUPLED SPIN-TRANSISTOR LOGIC  
Serial No. 61/699,124 Filed: September 10, 2012

Title of U.S. Formal Patent Application: EMITTER-COUPLED SPIN-TRANSISTOR LOGIC  
Serial Number: 13/931,552 Filed: June 28, 2013

WHEREAS, Northwestern University, an Illinois not-for-profit corporation, having a place of business at 633 Clark Street, Evanston, Illinois 60208, hereinafter referred to as "ASSIGNEE," is desirous of acquiring the entire right, title and interest in said invention and application and in any Letters Patent which may be granted on the same;

NOW THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged, ASSIGNORS have sold, assigned and transferred, and by these presents do sell, assign and transfer unto said ASSIGNEE, and ASSIGNEE's successors and assigns, all right, title and interest in and to said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world, including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, or prolongations or extensions thereof, said interest to be held and enjoyed by said ASSIGNEE as fully and exclusively as it would have been held and enjoyed by said ASSIGNORS had this assignment and transfer not been made, to the full extent and term of any Letters Patent.

ASSIGNORS further agree that ASSIGNORS will, without charge to said ASSIGNEE, but at ASSIGNEE's expense, cooperate with ASSIGNEE in the prosecution of said application and/or applications; execute, verify, acknowledge, and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof; and perform such other acts as ASSIGNEE lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said ASSIGNEE, or ASSIGNEE's successors and assigns.

IN TESTIMONY WHEREOF, ASSIGNORS have hereunto signed ASSIGNORS' names to this Assignment on the date indicated below.

Bruce W. Wessels  
BRUCE W. WESSELS  
Aug 5-13  
DATE

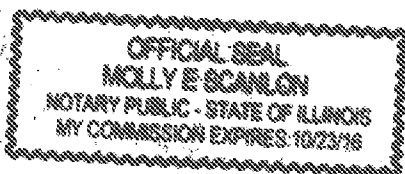
State of IL  
County of Cook ss.

On this 5 day of August, 2013, before me, a Notary Public in and for the County and State aforesaid, appeared, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he or she executed said instrument as his or her free and voluntary act and for the uses and purposes therein expressed.

Molly E Scanlon  
NOTARY PUBLIC

[NOTARY SEAL]

My Commission Expires: 10/23/16



Assignment for Execution

Title of U.S. Provisional Patent Application: EMITTER-COUPLED SPIN-TRANSISTOR LOGIC  
Serial No. 61/699,124 Filed: September 10, 2012

Title of U.S. Formal Patent Application: EMITTER-COUPLED SPIN-TRANSISTOR LOGIC  
Serial Number: 13/931,552 Filed: June 28, 2013

Joseph Friedman 7/31/13  
JOSEPH S. FRIEDMAN DATE

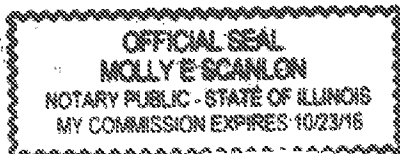
State of Illinois ss.  
County of Cook

On this 31 day of July, 2013, before me, a Notary Public in and for the County and State aforesaid, appeared, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he or she executed said instrument as his or her free and voluntary act and for the uses and purposes therein expressed.

Molly E Scanlon  
NOTARY PUBLIC

[NOTARY SEAL]

My Commission Expires: 10/23/16



**Assignment for Execution**

Title of U.S. Provisional Patent Application: EMITTER-COUPLED SPIN-TRANSISTOR LOGIC  
Serial No. 61/699,124 Filed: September 10, 2012

Title of U.S. Formal Patent Application: EMITTER-COUPLED SPIN-TRANSISTOR LOGIC  
Serial Number: 13/931,552 Filed: June 28, 2013

*[Signature]* 08/27/2013  
GOKHAM MEMIK DATE

State of Illinois ss.  
County of COOK

On this 27 day of August, 2013, before me, a Notary Public in and for the County and State aforesaid, appeared, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he or she executed said instrument as his or her free and voluntary act and for the uses and purposes therein expressed.

*[Signature]*  
NOTARY PUBLIC

[NOTARY SEAL]

My Commission Expires: 10/23/16

