10/27/2017 504615256

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4661971

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YI QI	10/25/2017
SANG WOO LIM	10/27/2017
KYUNG-BUM KOO	10/25/2017
ALINA VINSLAVA	10/26/2017
PEI ZHAO	10/25/2017
ZHENYU HU	10/25/2017
HSIEN-CHING LO	10/25/2017
JOSEPH F. SHEPARD JR.	10/25/2017
SHESH MANI PANDEY	10/25/2017

RECEIVING PARTY DATA

Name:	GLOBALFOUNDRIES INC.
Street Address:	PO BOX 309
Internal Address:	UGLAND HOUSE
City:	GRAND CAYMAN
State/Country:	CAYMAN ISLANDS
Postal Code:	KY1-1104

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15795833

CORRESPONDENCE DATA

Fax Number: (937)443-6635

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: 937-443-6600

Email: ipdocket@thompsonhine.com

THOMPSON HINE LLP Correspondent Name: 10050 INNOVATION DRIVE Address Line 1:

Address Line 2: SUITE 400

Address Line 4: DAYTON, OHIO 45342-4934

ATTORNEY DOCKET NUMBER: JMLT433-US-NP

NAME OF SUBMITTER:	WILLIAM R. ALLEN	
NAME OF SUBMITTEN:	WILLIAW D. ALLEN	
SIGNATURE:	/William R. Allen/	
DATE SIGNED:	10/27/2017	
Total Attachments: 9		
source=JMLT433-US-NP_Dec#page1.tit	†	
source=JMLT433-US-NP_Dec#page2.tif		
source=JMLT433-US-NP_Dec#page3.tif		
source=JMLT433-US-NP_Dec#page4.tif		
source=JMLT433-US-NP_Dec#page5.tif		
source=JMLT433-US-NP_Dec#page6.tif		
source=JMLT433-US-NP_Dec#page7.tif		
source=JMLT433-US-NP_Dec#page8.tif		
source=JMLT433-US-NP_Dec#page9.tif		

COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SINGLE-CURVATURE CAVITY FOR SEMICONDUCTOR EPITAXY	
	DECLARATION	
As the below	named inventor, I hereby declare that:	
This declaration is directed to:	on The attached application, or	
	United States application or PCT international application number filed on	
The above-ide	entified application was made or authorized to be made by me.	
I believe that	I am the original inventor or an original joint inventor of a claimed invention in the application.	
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by onment of not more than five (5) years, or both.	
I have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.		
	ASSIGNMENT	
For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.		
If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.		
LEGAL NAM	ME OF INVENTOR Vi Oi Date: 10 (25 2017	
Inventor:		
Signature:		
	lication data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. nal form for each additional inventor.	

COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SINGLE-CURVATURE CAVITY FOR SEMICONDUCTOR EPITAXY	
	. DECLARATION	
As the below	named inventor, I hereby declare that:	
This declarati	I/ \\	
is directed to.	United States application or PCT international application number filed on	
The above-id	entified application was made or authorized to be made by me.	
I believe that	I am the original inventor or an original joint inventor of a claimed invention in the application.	
•	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by onment of not more than five (5) years, or both.	
I have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.		
	ASSIGNMENT	
For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.		
If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.		
LEGAL NAI Inventor: Signature	Sang Woo Lim Date: Oct. 21th. 2817 Singrovo (See	
	lication data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.	

COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SINGLE-CURVATURE CAVITY FOR SEMICONDUCTOR EPITAXY	
	DECLARATION	
As the below	named inventor, I hereby declare that:	
This declarati	on The attached application, or	
	United States application or PCT international application number filed on	
The above-ide	entified application was made or authorized to be made by me.	
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by onment of not more than five (5) years, or both.	
I have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.		
	ASSIGNMENT	
For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.		
If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.		
LEGAL NAM	ME OF INVENTOR Kyung-Bum Koo Date: 10/25/20/7	
Signature:		
	lication data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. nal form for each additional inventor.	

COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SINGLE-CURVATURE CAVITY FOR SEMICONDUCTOR EPITAXY	
	DECLARATION	
As the below	named inventor, I hereby declare that:	
This declarati	ν v	
-	United States application or PCT international application number filed on	
The above-ide	entified application was made or authorized to be made by me.	
I believe that	I am the original inventor or an original joint inventor of a claimed invention in the application.	
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by onment of not more than five (5) years, or both.	
I have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.		
	ASSIGNMENT	
For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.		
If any portio shall neverth	n of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof neless remain in full force and effect.	
LEGAL NAM	ME OF INVENTOR	
Inventor:	Alina Vinslava Date: 10/26/17	
Signature:		
	JN C	
Note: An appl	lication data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.	

Use an additional form for each additional inventor.

COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SINGLE-CURVATURE CAVITY FOR SEMICONDUCTOR EPITAXY		
	DECLARATION		
As the below	As the below named inventor, I hereby declare that:		
This declarati	on The attached application, or		
	United States application or PCT international application number filed on		
The above-ide	entified application was made or authorized to be made by me.		
I believe that	I am the original inventor or an original joint inventor of a claimed invention in the application.		
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.			
I have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.			
	ASSIGNMENT		
For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.			
If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.			
LEGAL NAN	ME OF INVENTOR		
Inventor:	Pei Zhao Date: $\frac{ v \ge 5 \ge 01}{ v }$		
Signature:	for their		
	ication data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. nal form for each additional inventor.		

COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SINGLE-CURVATURE CAVITY FOR SEMICONDUCTOR EPITAXY	
	DECLARATION	
As the below	named inventor, I hereby declare that:	
This declarati	I/ VI	
	United States application or PCT international application number filed on	
	entified application was made or authorized to be made by me.	
I believe that	I am the original inventor or an original joint inventor of a claimed invention in the application.	
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by onment of not more than five (5) years, or both.	
I have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.		
	ASSIGNMENT	
For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.		
	on of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof neless remain in full force and effect.	
LEGAL NAI	ME OF INVENTOR Zhenyu Hu Date: $10/25/2017$	
Inventor: Signature		
	lication data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. onal form for each additional inventor.	

COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SINGLE-CURVATURE CAVITY FOR SEMICONDUCTOR EPITAXY	
	DECLARATION	
As the below	named inventor, I hereby declare that:	
This declarati	$ u \vee v$	
is anotted to.	United States application or PCT international application number filed on	
The above-identified application was made or authorized to be made by me.		
I believe that	I am the original inventor or an original joint inventor of a claimed invention in the application.	
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by onment of not more than five (5) years, or both.	
	ed and understand the contents of the application and am aware of the duty to disclose to the US Patent and ffice all information known to me to be material to patentability as defined in 37 CFR § 1.56.	
	ASSIGNMENT	
For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.		
If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.		
LEGAL NAM Inventor: Signature:	ME OF INVENTOR Hsien-Ching Lo Date: 10/1/2 (V)	
	lication data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. nal form for each additional inventor.	

COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SINGLE-CURVATURE CAVITY FOR SEMICONDUCTOR EPITAXY	
DECLARATION		
As the below named inventor, I hereby declare that:		
This declarati	V	
	United States application or PCT international application number filed on	
	entified application was made or authorized to be made by me.	
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.		
I have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.		
ASSIGNMENT		
For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.		
If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.		
LEGAL NAME OF INVENTOR		
Inventor: Signature:	Joseph F. Shepard, Ir. Date: 10/25/2017	
Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional form for each additional inventor.		

PATENT

REEL: 043970 FRAME: 0871

COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SINGLE-CURVATURE CAVITY FOR SEMICONDUCTOR EPITAXY	
DECLARATION		
As the below named inventor, I hereby declare that:		
This declarati	on The attached application, or United States application or PCT international application numberfiled on	
The above-ide	entified application was made or authorized to be made by me.	
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.		
I have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.		
ASSIGNMENT		
For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.		
If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.		
Inventor: Signature:	Shesh Mani Pandey Date:	
Note: An annli	ication data sheet (PTO/SR/14 or equivalent) including naming the entire inventive entiry must eccompany this form	

PATENT REEL: 043970 FRAME: 0872

RECORDED: 10/27/2017

Use an additional form for each additional inventor.