### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6110644

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MORIZ JELINEK	01/13/2020
KANG NAN KHOR	05/15/2020
ARMIN SCHIEBER	12/27/2019
MICHAEL STADTMUELLER	05/15/2020
WEI-LIN SUN	01/20/2020

#### **RECEIVING PARTY DATA**

Name:	INFINEON TECHNOLOGIES AG
Street Address:	AM CAMPEON 1-15
City:	NEUBIBERG
State/Country:	GERMANY
Postal Code:	85579

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16723147

#### **CORRESPONDENCE DATA**

**Fax Number:** (919)948-3357

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:** 9199483390

**Email:** official@mbhiplaw.com

Correspondent Name: MURPHY, BILAK & HOMILLER/INFINEON TECHNO

Address Line 1: 1255 CRESCENT GREEN

Address Line 2: SUITE 200

Address Line 4: CARY, NORTH CAROLINA 27518

ATTORNEY DOCKET NUMBER:	1012-2619 / 2018P51771 US
NAME OF SUBMITTER:	MARK R. BILAK, REG. NO. 47,423
SIGNATURE:	/Mark R. Bilak, Reg. No. 47,423/
DATE SIGNED:	05/18/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT 506063929 REEL: 052686 FRAME: 0263

# Total Attachments: 8 source=1012-2619 Declaration and Assignment#page1.tif source=1012-2619 Declaration and Assignment#page2.tif source=1012-2619 Declaration and Assignment#page3.tif source=1012-2619 Declaration and Assignment#page4.tif source=1012-2619 Declaration and Assignment#page5.tif source=1012-2619 Declaration and Assignment#page6.tif source=1012-2619 Declaration and Assignment#page7.tif source=1012-2619 Declaration and Assignment#page8.tif

PATENT REEL: 052686 FRAME: 0264

# DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

United States Patent Rights, or United States Plus all Foreign Patent Rights

## Method of Manufacturing a Trench Oxide in a Trench for a Gate Structure in a Semiconductor Substrate

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:

This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

United States Application Number or PCT International Appln. No. 16/723,147

filed on Dec 20, 2019.

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.

I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.

WHEREAS, the undersigned has invented certain at least one claim in the application identified.

WHEREAS, Infineon Technologies AG

of Am Campeon 1-15, 85579 Neubiberg, Germany

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

in any foreign countries.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has (have) sold, assigned and transferred, and by these considerations does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions of all of the above for the full term or terms for which the same may be granted.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof or any other proceedings before the United States Patent and Trademark Office and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

Page 1 of 2

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the Assignee's legal representatives the power to insert, before or after this document has been executed by the undersigned, any information to identify the instant patent application which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges 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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

Full Name of Inventor:	Moriz Jelinek
<u>13.01.2020</u> Date	Inventor Signature
Full Name of Inventor:	Kang Nan Khor
Date	Inventor Signature
Full Name of Inventor:	Armin Schieber
Date	Inventor Signature
Full Name of Inventor	Michael Stadtmueller
Date	Inventor Signature
Full Name of Inventor:	Wei-Lin Sun
Date	Inventor Signature

## DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

United States Patent Rights, or United States Plus all Foreign Patent Rights

## Method of Manufacturing a Trench Oxide in a Trench for a Gate Structure in a Semiconductor Substrate

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:

This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

United States Application Number or PCT International Appln. No. 16/723,147

filed on Dec 20, 2019.

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.

I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.

WHEREAS, the undersigned has invented certain at least one claim in the application identified.

WHEREAS, Infineon Technologies AG

of Am Campeon 1-15, 85579 Neubiberg, Germany

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

in any foreign countries.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has (have) sold, assigned and transferred, and by these considerations does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions of all of the above for the full term or terms for which the same may be granted.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof or any other proceedings before the United States Patent and Trademark Office and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the Assignee's legal representatives the power to insert, before or after this document has been executed by the undersigned, any information to identify the instant patent application which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges 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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

Full Name of Inventor:	Moriz Jelinek
Date	Inventor Signature
Full Name of Inventor:	Kans Nau, Khor
15 May 2020	Tol go
Date	ThVehter-Sighature
Full Name of Inventor:	Armin Schieber
Date	Inventor Signature
Full Name of Inventor:	_Michael Stadtmueller
15 May 2020	Michael Stadtmueller
Date	mventor/Signature
Full Name of Inventor:	Wei-Lin Sun
Date	Inventor Signature

# DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

United States Patent Rights, or United States Plus all Foreign Patent Rights

## Method of Manufacturing a Trench Oxide in a Trench for a Gate Structure in a Semiconductor Substrate

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:

This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

United States Application Number or PCT International Appln. No. 16/723,147

filed on Dec 20, 2019.

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.

I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.

WHEREAS, the undersigned has invented certain at least one claim in the application identified.

WHEREAS, Infineon Technologies AG

of Am Campeon 1-15, 85579 Neubiberg, Germany

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

in any foreign countries.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has (have) sold, assigned and transferred, and by these considerations does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions of all of the above for the full term or terms for which the same may be granted.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof or any other proceedings before the United States Patent and Trademark Office and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

Page 1 of 2

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the Assignee's legal representatives the power to insert, before or after this document has been executed by the undersigned, any information to identify the instant patent application which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges 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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

Full Name of Inventor:	Moriz Jelinek
Date	Inventor Signature
Full Name of Inventor:	Kang Nan Khor
Date	Inventor Signature
Full Name of Inventor: 27/12/19	Armin Schieber
Date	_/inventor Signature
Full Name of Inventor:	Michael Stadtmueller
Date:	Inventor Signature
Full Name of Inventor:	Wei-Lin Sun
Date	Inventor Signature

Page 2 of 2

# DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

United States Patent Rights, or United States Plus all Foreign Patent Rights

## Method of Manufacturing a Trench Oxide in a Trench for a Gate Structure in a Semiconductor Substrate

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:

This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

United States Application Number or PCT International Appln. No. 16/723,147

filed on Dec 20, 2019.

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.

I have reviewed and understand the contents of the above-identified application, including the claims,

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.

WHEREAS, the undersigned has invented certain at least one claim in the application identified.

WHEREAS, Infineon Technologies AG

of Am Campeon 1-15, 85579 Neubiberg, Germany

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

in any foreign countries.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has (have) sold, assigned and transferred, and by these considerations does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions of all of the above for the full term or terms for which the same may be granted.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof or any other proceedings before the United States Patent and Trademark Office and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the Assignee's legal representatives the power to insert, before or after this document has been executed by the undersigned, any information to identify the instant patent application which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges 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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

Full Name of Inventor:	Moriz Jelinek
Date	Inventor Signature
Full Name of Inventor:	Kang Nan Khor
Date	Inventor Signature
Full Name of Inventor:	Armin Schieber
Date	Inventor Signature
Full Name of Inventor:	Michael Stadtmueller
Date	Inventor Signature
Full Name of Inventor:	Wel-Lin Sun
30. Jan. 2020	Sim
Date	Inventor Signature

Page 2 of 2