

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
| SASIKANTH MANIPATURNI | 10/19/2018 |
| UYGAR AVCI | 10/12/2018 |
| SEIYON KIM | 10/17/2005 |
| IAN YOUNG | 10/12/2018 |
| RECEIVING PARTY DATA | |
| Name: | Intel Corporation |
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| City: | Santa Clara |
| State/Country: | CALIFORNIA |
| Postal Code: | 95054 |
| PROPERTY NUMBERS Total: 1 | |
| Property Type | Number |
| Application Number: | 16024719 |
| CORRESPONDENCE DATA | |
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| <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> | |
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| NAME OF SUBMITTER: | JUSTIN K. BRASK |
| SIGNATURE: | /Justin K. Brask/ |
| DATE SIGNED: | 02/22/2019 |
| Total Attachments: 3 | |
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ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned:

Sasikanth MANIPATURNI, Uygur AVCI, Seiyon KIM, Ian YOUNG,

hereby sell, assign, and transfer to

Intel Corporation

a Corporation of **Delaware**, having a principal place of business at:
2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee")
and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which may have a declaration executed by the undersigned prior hereto or concurrently herewith and is entitled

ANTIFERROELECTRIC PEROVSKITE GATE OXIDE FOR TRANSISTOR APPLICATIONS

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

US or International Application Number 16/024,719 filed June 29, 2018,

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

| | |
|-----------------------------|------------------------------------|
| <u>10/19/18</u> | <u>Sasikanth</u> |
| Date | Name: Sasikanth MANIPATRUNI |
| <u>10/12/2018</u> | <u>Uygar</u> |
| Date | Name: Uygar AVCI |
| <u>10/12/18</u> | <u>Ian Young</u> |
| Date | Name: Ian YOUNG |
| <u> </u> | <u> </u> |
| Date | Name: |
| <u> </u> | <u> </u> |
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| Date | Name: |
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| Date | Name: |
| <u> </u> | <u> </u> |
| Date | Name: |

Assignment Document Return Address:
Schwabe, Williamson & Wyatt P.C.
1211 SW 5th Avenue, Suite 1900
Portland, OR 97204
Telephone: (503) 222-9981

EMPLOYMENT AGREEMENT

In exchange for being employed by Intel Corporation ("Intel") or any of its subsidiaries, affiliates or successors (collectively, the "Intel Group"), I agree that:

- General Conduct.** While working for any company in the Intel Group, I will perform my assigned duties and comply with all Intel Group policies, procedures, guidelines, rules, and instructions, including Intel's Corporate Business Principles. The company within the Intel Group that is my employer is referred to in this Agreement as "Employer."
- Prior Third Party Information.** I represent that I do not possess, have not brought, and will not bring to the Intel Group, nor use in the course of the performance of my duties at the Intel Group, any proprietary or confidential information of any former employer or third party without their written authorization.
- Confidential Information.** At all times, both during and after my employment with any company in the Intel Group, I will not use (except for the benefit and at the direction of the Intel Group) and will hold in confidence and not disclose (without written authorization from a company in the Intel Group, except to the extent I am authorized to do so in the course of my duties) any proprietary information or trade secret (technical or otherwise) of the Intel Group or any third party to which I gain access pursuant to my employment, until such information becomes generally and rightfully known outside the Intel Group without non-disclosure restriction, or for the maximum period of time for maintaining trade secrets as permitted by law in the jurisdiction in which I am employed if such period is shorter. I agree not to make unauthorized copies of such confidential information and to return to the Intel Group immediately upon my termination or upon request by my Employer or any other company in the Intel Group all tangible forms of such confidential information, including but not limited to drawings, computerized data or programs, specifications, documents, devices, models, employee lists, customer lists or phone books, or any other Intel Group confidential information. I will, at all times, treat third parties' confidential information, to which I have access during my employment by any company in the Intel Group, according to the terms of any agreement between any company in the Intel Group and the third parties regarding such third party confidential information. I agree that any breach, violation or evasion of this provision will result in immediate and irreparable injuries and harm to the Intel Group, and I agree that any company in the Intel Group seeking to enforce this Agreement shall have recourse to the remedies of injunction and specific performance, or either of such remedies, as well as all other legal or equitable remedies to which such company may be entitled.
- Intel Intellectual Property.** During my employment with any company in the Intel Group, I will, without additional compensation, promptly disclose and, to the full extent allowed by law and subject to creation of such property, I do hereby assign to Employer (or such other company in the Intel Group as may be designated by Employer), all rights to which I may be entitled with respect to patents, trade secrets, copyrights, mask works, trademarks, inventions, discoveries, designs, formulae, processes, methods, manufacturing techniques, improvements, ideas, copyrightable works, and other intellectual property: (a) which relate to the Intel Group's past, present, or demonstrated or reasonably foreseeable future business or research, whether or not developed during normal working hours; or (b) which are developed with the use or aid of any Intel Group equipment, supplies or facilities; or (c) which use or are based on or developed from any proprietary or confidential information of the Intel Group, or of a third party, access to which I obtain through the Intel Group or in the course of my duties at the Intel Group; or (d) which result from any work, service, or duty I perform for the Intel Group, and I agree to waive any pre-emptive or other rights that I may have in such property. At all times, both during and after my employment with any company in the Intel Group, I will do whatever is reasonably requested by my Employer, at Employer's expense, to assist Employer or its designee in obtaining and enforcing its rights throughout the world with respect to the assignments which I have made or am obligated to make to Employer or its designee under this Agreement. I am not obligated to assign to Employer or its designee any rights in inventions which I develop entirely on my own time without using the Intel Group's equipment, supplies, facilities, or trade secrets, except for inventions: (i) which relate at the time of conception or reduction to practice to the Intel Group's business, or actual or demonstrably anticipated research or development; or (ii) which result from any work performed by me for the Intel Group.
- Employee Intellectual Property.** The purpose of this section 5 is to enable my Employer and the Intel Group to determine their rights and risks. As to any intellectual property rights, whether vested or pending, which I own or control in whole or in part, either (a) prior to joining any company in the Intel Group or (b) at any time during my employment with any company in the Intel Group to the extent that such rights are not subject to section 4 above, I do not assign such rights to Employer but I do grant Employer (or its designee) a non-exclusive, non-transferable (except within the Intel Group), perpetual, irrevocable, royalty-free, world-wide license, with the right to sublicense, to make, have made, use, sell, offer to sell, import, reproduce, have reproduced, prepare derivative works of, distribute, and otherwise dispose of any product or document, except that I do not grant any license to any item of intellectual property which is identified by me in Appendix A at the time of execution of this Agreement and such Appendix A is submitted directly by me to Intel Legal and actually received by Intel Legal within five working days of my hiring. As to any intellectual property identified in Appendix A, and as to any intellectual property that I acquire or control during my employment with any Intel Group company and which is not assigned or licensed to Employer or its designee, I agree that (a) I will (i) notify Intel Legal in writing of any change in status, within five working days of such change, such as my acquisition of a new intellectual property right, or such as a patent application becoming an issued patent, (ii) notify Intel Legal in writing promptly upon learning or reasonably suspecting that any Intel Group product includes, or is proposed to include, such intellectual property, (iii) not cause any Intel Group product to infringe such intellectual property, and (iv) not use my employment with any Intel Group company to in any way disadvantage the Intel Group with regard to any such intellectual property; or (b) I grant Employer (or its designee) a license as described above. No such license grant shall limit other remedies otherwise available to the Intel Group. If I fail to make any required disclosure or breach any term of this paragraph 5, I agree that any applicable limitations periods shall be tolled and shall not run as to any claim, right, or cause of action Employer may have relating to such disclosure or breach that would have been discovered had the required disclosure been made, until such time as Employer obtains actual knowledge of the facts giving rise to its claim.
- Non-solicitation.** I agree that for 12 (twelve) months after my employment ends, regardless of the reason it ends, I will not solicit, directly or indirectly, any employee to leave his/her employment with any company in the Intel Group. By way of example, I will not identify any employees working for any Intel Group company to any third party as potential employment candidates; (b) shall not personally or through another person recruit or solicit employees working for any Intel Group company to work for any other employer; and/or (c) will not disclose or use information I learned by virtue of my employment concerning the identities, compensation or skills of any employee for the purpose of soliciting any employee to leave his/her employment with any company in the Intel Group. I agree that any breach, violation or evasion of this provision will result in immediate and irreparable injuries and harm to the Intel Group, and I agree that the Intel Group company seeking to enforce this Agreement shall have recourse to the remedies of injunction and specific performance, or either of such remedies, as well as all other legal or equitable remedies to which such company may be entitled.
- Computer Communications are Not Private.** I understand that although the companies within the Intel Group permit reasonable personal use of networked computer equipment, these resources and all information contained on them are the sole property of companies within the Intel Group. Computer use is not private or confidential, and someone other than the intended addressee may receive the message. I understand and consent to my Employer's and/or the Intel Group's interception and review of both incoming and outgoing email, internet and all computer information, including any password-protected employee communications.
- Miscellaneous.** I understand that if Intel is not my Employer, Intel is signing this Agreement as agent for the Intel Group company that is my Employer. I understand and agree that my employment with any company in the Intel Group is "at will." This means that both my Employer and I have the right to terminate my employment at any time, with or without advance notice and with or without cause provided, however, that if I become employed by an Intel Group company in a non-U.S. location, the termination law of that country will apply if inconsistent with this Agreement.

The terms and conditions stated herein are severable. If any paragraph, provision, or clause in this Agreement is found or held to be invalid, unenforceable or void in any jurisdiction in which this Agreement is being performed, such provision shall be enforced to the greatest extent permitted by law, and the remainder of this Agreement and such provision as applied to other persons, places or circumstances shall remain in full force and effect.

This Agreement (a) survives my employment with any company or companies in the Intel Group; (b) inures to the benefit of successors and assigns of my Employer (including successors within the Intel Group); and (c) is binding upon my heirs, assigns, and legal representatives. To the best of my information and belief, I am not a party to any other agreement which will interfere with my full compliance with this Agreement, except as specifically identified herein.

This Agreement may not be modified or amended except in a writing signed by the parties.

This Agreement is effective as of my first day of employment with any company in the Intel Group, remains in effect if I become employed by any other company in the Intel Group (which shall then become my Employer hereunder) and supercedes any prior Employee Agreement signed by me with any company in the Intel Group.

I have carefully read all of the provisions of this Agreement and I understand and will fully and faithfully comply with such provisions.

Intel Corporation -

Employee

D. Bruce Swelt
Vice President and General Counsel

Signature

Printed Name & WWID # (please print clearly)

Social Security Number

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PATENT

RECORDED: 02/22/2019

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