PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5123386

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------|----------------|
| HIU YUNG WONG | 08/13/2018 |
| VICTOR MOROZ | 08/13/2018 |
| QIANG LU | 08/31/2018 |

RECEIVING PARTY DATA

| Name: | SYNOPSYS, INC. | |
|-----------------|------------------------|--|
| Street Address: | 690 E. MIDDLEFIELD RD. | |
| City: | MOUNTAIN VIEW | |
| State/Country: | CALIFORNIA | |
| Postal Code: | 94043 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16109629 |

CORRESPONDENCE DATA

Fax Number: (650)712-0263

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: 650-712-0340 **Email:** motts@hmbay.com

Correspondent Name: SYNOPSYS, INC. C/O HAYNES BEFFEL & WOLFE

Address Line 1: P.O. BOX 366

Address Line 4: HALF MOON BAY, CALIFORNIA 94019

| ATTORNEY DOCKET NUMBER: | SYNP 3073-2 |
|-------------------------|---------------|
| NAME OF SUBMITTER: | MATHEW OTTS |
| SIGNATURE: | /Mathew Otts/ |
| DATE SIGNED: | 09/04/2018 |

Total Attachments: 4

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> PATENT REEL: 046779 FRAME: 0804

505076629

JOINT TO CORPORATE ASSIGNMENT

WHEREAS, the undersigned,

- (1) Hiu Yung WONG, Cupertino, CA 95014
- (2) Victor MOROZ, Saratoga, CA 95070
- (3) Qiang LU, Foster City, CA 94404

hereinafter termed "Inventors", have invented certain new and useful improvements in

ON-CHIP HEATING AND SELF-ANNEALING IN FINFETS WITH ANTI-PUNCH-THROUGH IMPLANTS

and

[X] as described in a provisional application for a United States patent disclosing and identifying the above invention on $\underline{20 \text{ October } 2017}$ as Application No. $\underline{62/548,996}$;

[X] as described in a non-provisional application for a United States patent disclosing and identifying the above invention on August 22, 2018 [mo] as Application No. 16/109,629 [mo]

[] as described in a non-provisional application herewith, and

(hereinafter termed "applications"); and

WHEREAS, Synopsys, Inc., a corporation of Delaware, having a place of business at having a place of business at 690 E. Middlefield Rd., Mountain View, CA 94043 (hereinafter termed "Assignee"), is desirous of acquiring the entire right, title and interest in and to said applications and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventors to have been received in full from said Assignee:

- 1. Said Inventors do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said applications and said invention; (b) in and to all rights to apply for foreign patents (including patent, utility model and industrial design) on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise, including the right to claim priority from the applications; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extension of any of said patents.
- 2. Said Inventors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation

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proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

- 3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, the Inventors' respective heirs, legal representatives and assigns.
- 4. Said Inventors hereby warrant and represent that said Inventors have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.
- 5. Said Inventors hereby authorize Assignee, or anyone designated by the Assignee, to insert on each page of this instrument (where indicated) the filing date and application number of said application(s) when known.

IN WITNESS WHEREOF, said Inventors have executed and delivered this instrument to said Assignee as of the date written below.

| Liu Yung WONG | / | Date: 13 August 2018 | |
|---|---|----------------------|--|
| (1) Hiu Yung WC 2FA35F5286AA4D1 | | | |
| / DocuSigned by: // Victor MOR(6878AB8E81C94AA | | Date: 13 August 2018 | |
| /(3) Qiang LU | | Date: | |

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IN WITNESS WHEREOF, said Inventors have executed and delivered this instrument to said Assignee as of the date written below.

| / | <u>/</u> | Date: |
|------------------------------|----------|-------------------------|
| (1) Hiu Yung WONG | | |
| | | |
| | | |
| (2) Vistor MODO7 | | Date: |
| (2) Victor MOROZ | | |
| DocuSigned by: | | |
| Docusigned by: | , | 31 August 2018 Date: |
| (3) Qiang LU F19D380B2D0E49F | | Date. |

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