PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT7271239

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIA-CHENG CHAO	08/31/2017
CHUNG-CHENG WANG	09/09/2017
CHUN-KUANG CHEN	08/31/2017

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	8, LI-HSIN RD. 6
Internal Address:	HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300-78

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17572432

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	2017-1084/24061.3587US02
NAME OF SUBMITTER:	CATHERINE HUDSON
SIGNATURE:	/Catherine Hudson/
DATE SIGNED:	04/08/2022

Total Attachments: 2

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PATENT REEL: 059550 FRAME: 0963 507224387

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Docket No.: P20171084US00/24061.3587US01

Customer No.: 42717

ASSIGNMENT '

WHEREAS, we,

(1)	Chia-Cheng Chao	of	Hsinchu City, Taiwan, Republic of China
(2)	Chung-Cheng Wang	of	Hsinchu City, Taiwan, Republic of China
(3)	Chun-Kuang Chen	of	Hsinchu County, Taiwan, Republic of China

have invented certain improvements in

USING CUMULATIVE HEAT AMOUNT DATA TO QUALIFY HOT PLATE USED FOR POST-EXPOSURE BAKING

for which we have	executed an application for Letters Patent of the United States of Ameri	ca,
_X	of even date filed herewith; and	
	filed on and assigned application number; and	

WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd., ("TSMC"), 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78, Republic of China. is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal,

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substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

Inventor Name:

Chia-Cheng Chao

Residence Address:

8, Li-Hsin Rd. 6

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Hsinchu, Taiwan 300-78 (R.O.C.)

Dated: Aug 31, 201)

Chia - Chang Chao
Inventor Signature

Inventor Name:

Chung-Cheng Wang

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Dated: Sep. 0(, 70()

Churg- Chang Wang
Inventor Signature

Inventor Name:

Chun-Kuang Chen

Residence Address:

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Datad. Mu

Dug 31, 2017

Chun-Knay Chen

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