

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
CHIH-YU HSU	02/28/2018
PENG SHEN	03/05/2018
TAKASHI TERAMOTO	03/05/2018
JIRO YOKOTA	02/28/2018
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Property Type	Number
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DATE SIGNED:	03/05/2018
Total Attachments: 1	
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Assignment of Invention

WHEREAS WE, Chih-yu HSU, Peng SHEN, Takashi TERAMOTO, Nathan STAFFORD and Jiro YOKOTA have invented certain new and useful improvements documented in a patent application entitled, SIN SELECTIVE ETCH TO SiO₂ WITH NON-PLASMA DRY PROCESS FOR 3D NAND DEVICE APPLICATIONS, for which a United States patent application was filed on December 29, 2017, having Application No. 15/858,342;

WHEREAS, L'Air Liquide, Société Anonyme pour l'Étude et l'Exploitation des Procédés Georges Claude, a French corporation (hereinafter referred to as "ASSIGNEE") having a place of business at 75 quai d'Orsay, Paris, FRANCE 75007 desires to acquire from Chih-yu HSU, Peng SHEN, Takashi TERAMOTO, and Jiro YOKOTA the entire right, title and interest WE have in and to said invention and in and to any Letters Patent that may be granted thereof in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, for valuable consideration, the receipt whereof is hereby acknowledged, WE, by these presents do sell, assign and transfer unto said ASSIGNEE, effective as of the first priority date, the full and exclusive right to the said invention in the United States and its territorial possessions, including the right to claim priority of the above-mentioned patent application(s), and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in and to any and all subsequent provisionals, non-provisionals, divisions, reissues, continuations, continuations-in-part, reexaminations, substitutions and renewals thereof.

WE hereby authorize and request the Patent Office Officials in the United States and its territorial possessions to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of the entire right, title and interest in and to the same, for the sole use and benefit of said ASSIGNEE, its successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.

Further, WE, agree that WE will communicate to said ASSIGNEE or its representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all non-provisional, divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions.

The undersigned hereby grants authorized representatives of the above identified ASSIGNEE the power to insert on this assignment any further identification, **INCLUDING ANY SUBSEQUENT DATE OF APPLICATION FILING AND THE APPLICATION SERIAL NUMBER**, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date: 2018.2.28

Chih-yu Hsu 徐裕宇
Chih-yu HSU (Inventor)

Date: 2018.3.5

Peng
Peng SHEN (Inventor)

Date: 2018.3.5

Takashi
Takashi TERAMOTO (Inventor)

Date: 2018.2.28

Jiro
Jiro YOKOTA (Inventor)