

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT6983837

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
TOM E. BLOMBERG	06/20/2018
CHIYU ZHU	09/12/2018
MARKO TUOMINEN	09/12/2018
SUVI HAUKKA	09/07/2018
VARUN SHARMA	09/07/2018
RECEIVING PARTY DATA	
Name:	ASM IP HOLDING B.V.
Street Address:	VERSTERKERSTRAAT 8
City:	ALMERE
State/Country:	NETHERLANDS
Postal Code:	1322 AP
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16881868
CORRESPONDENCE DATA	
Fax Number:	(949)760-9502
<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>	
Phone:	949-760-0404
Email:	efiling@knobbe.com
Correspondent Name:	KNOBBE MARTENS OLSON & BEAR LLP
Address Line 1:	2040 MAIN STREET
Address Line 2:	14TH FLOOR
Address Line 4:	IRVINE, CALIFORNIA 92614
ATTORNEY DOCKET NUMBER:	ASMMC.132AUS1C2
NAME OF SUBMITTER:	ANDREW N. MERICKEL
SIGNATURE:	/Andrew N. Merickel/
DATE SIGNED:	10/22/2021
This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 6

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COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Docket No.: ASMMC.132AUS1

Page 1 of 3

Title: ATOMIC LAYER ETCHING PROCESSES

Inventors: Tom E. Blomberg, Chiyu Zhu, Marko Tuominen, Suvi Haukka, and Varun Sharma

Declaration

This Declaration is directed to the application identified above that:

Was filed **December 7, 2017** as U.S. or International Application No. **15/835,272** and incorporating any amendments made thereto prior to the signature date of this Declaration.

As a named inventor, I declare that:

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 hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

Assignment from Inventors

WHEREAS, **above-identified inventors** (individual(s) hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental designs, or discoveries, and hereby assign or are under an obligation to assign to the below identified Assignee the above-titled application (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States (identified above) has been prepared for filing with the United States Patent and Trademark Office (hereinafter the "Application").

AND WHEREAS, **ASM IP Holding B.V.**, with its principal place of business at Versterkerstraat 8, Almere, 1322 AP, The Netherlands (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work.

NOW, THEREFORE, for good and valuable consideration of which receipt is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all Patent Properties filed or issued upon the Application and the Work; where "Patent Properties" include, but are not limited to:

all provisional applications relating thereto (including but not limited to U.S. Provisional Application No(s). **62/438,055 filed December 22, 2016** and **62/449,936 filed January 24, 2017**, (respectively if plural applications));

all nonprovisional applications claiming priority to aforementioned provisional(s) and/or the present Application, including, all divisions, continuations, continuations-in-part, and reissues, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof; and

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Docket No.: ASMMC.132AUS1

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Title: ATOMIC LAYER ETCHING PROCESSES

Inventors: Tom E. Blomberg, Chiyu Zhu, Marko Tuominen, Suvi Haukka, and Varun Sharma

all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof.

ASSIGNOR hereby acknowledges the ASSIGNEE as the Applicant for all aforementioned Patent Properties, and authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other Patent Property relating to the Application and the Work or any improvements made thereto, sign/execute all lawful papers, authorize the filing of and execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

Legal Name of inventor: Tom E. Blomberg

Signature: _____

Date: _____

Witnessed by: _____

Witness Name (printed): _____

Legal Name of inventor: Chiyu Zhu

Signature: _____

Date: _____

Witnessed by: _____

Witness Name (printed): _____

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Docket No.: ASMMC.132AUS1

Page 3 of 3

Title: ATOMIC LAYER ETCHING PROCESSES

Inventors: Tom E. Blomberg, Chiyu Zhu, Marko Tuominen, Suvi Haukka, and Varun Sharma

Legal Name of inventor: Marko Tuominen

Signature: _____ Date: _____

Witnessed by: _____

Witness Name (printed): _____

Legal Name of inventor: Suvi Haukka

Signature: _____ Date: _____

Witnessed by: _____

Witness Name (printed): _____

Legal Name of inventor: Varun Sharma

Signature: _____ Date: _____

Witnessed by: _____

Witness Name (printed): _____

27204746

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Docket No.: ASMMC.132AUS1

Page 1 of 3

Title: ATOMIC LAYER ETCHING PROCESSES

Inventors: Tom E. Blomberg, Chiyu Zhu, Marko Tuominen, Suvi Haukka, and Varun Sharma

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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 hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

Assignment from Inventors

WHEREAS, **above-identified inventors** (individual(s) hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental designs, or discoveries, and hereby assign or are under an obligation to assign to the below identified Assignee the above-titled application (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States (identified above) has been prepared for filing with the United States Patent and Trademark Office (hereinafter the "Application").

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NOW, THEREFORE, for good and valuable consideration of which receipt is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all Patent Properties filed or issued upon the Application and the Work; where "Patent Properties" include, but are not limited to:

all provisional applications relating thereto (including but not limited to U.S. Provisional Application No(s). **62/438,055 filed December 22, 2016** and **62/449,936 filed January 24, 2017**, (respectively if plural applications));

all nonprovisional applications claiming priority to aforementioned provisional(s) and/or the present Application, including, all divisions, continuations, continuations-in-part, and reissues, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof; and

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Docket No.: ASMMC.132AUS2

Page 2 of 3

Title: THERMAL ATOMIC LAYER ETCHING PROCESSES

Inventors: Tom E. Blomberg, Chiyu Zhu, Marko Tuominen, Suvi Haukka, and Varun Sharma

all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof.

ASSIGNOR hereby acknowledges the ASSIGNEE as the Applicant for all aforementioned Patent Properties, and authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other Patent Property relating to the Application and the Work or any improvements made thereto, sign/execute all lawful papers, authorize the filing of and execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

Legal Name of inventor: Tom E. Blomberg

Signature: _____ Date: _____

Witnessed by: _____

Witness Name (printed): _____

Legal Name of inventor: Chiyu Zhu

Signature: Chiyu Zhu Date: Sep 12 2018

Witnessed by: [Signature] [Signature]

Witness Name (printed): HANNU HO STAGE

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

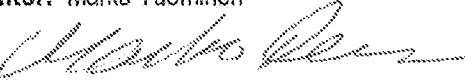
Docket No.: ASMMC.132AUS1

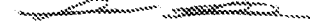
Page 3 of 3

Title: ATOMIC LAYER ETCHING PROCESSES

Inventors: Tom E. Blomberg, Chiyu Zhu, Marko Tuominen, Suvl Haukka, and Varun Sharma

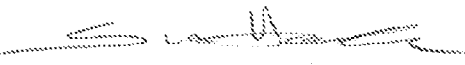
Legal Name of inventor: Marko Tuominen

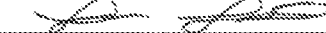
Signature:  Date: 12/9/2018

Witnessed by: 

Witness Name (printed): HANNU HUOTARI

Legal Name of inventor: Suvl Haukka

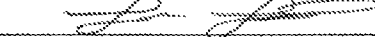
Signature:  Date: September 7th, 2018

Witnessed by: 

Witness Name (printed): HANNU HUOTARI

Legal Name of inventor: Varun Sharma

Signature: Varun Sharma Date: September 7th, 2018

Witnessed by: 

Witness Name (printed): HANNU HUOTARI

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