506285192 10/01/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6331940

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LUCAS PETERSEN BARBOSA LIMA	08/17/2020
RAMI KHAZAKA	08/18/2020
QI XIE	08/05/2020

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:	16998220

CORRESPONDENCE DATA

Fax Number: (602)470-2434

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: 6024705707

Email: michelle.sympson@asm.com

Correspondent Name: PATRICK LEE

Address Line 1: 3440 E. UNIVERSITY DRIVE Address Line 4: PHOENIX, ARIZONA 85034

ATTORNEY DOCKET NUMBER:	PAT-MC-0620-US-NP
NAME OF SUBMITTER:	MICHELLE SYMPSON
SIGNATURE:	/Michelle Sympson/
DATE SIGNED:	10/01/2020

Total Attachments: 4

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PATENT 506285192 REEL: 053954 FRAME: 0351

Application Serial No.: 16/998,220 Docket No.: PAT-MC-0620-US-NP

Filing Date: August 20, 2020

Title: METHODS FOR SELECTIVE DEPOSITION USING A SACRIFICIAL CAPPING

LAYER

ASSIGNMENT

WHEREAS, LUCAS PETERSEN BARBOSA LIMA, a citizen of Brazil and a resident of Heverlee, Belgium; RAMI KHAZAKA, a citizen of Lebanon and a resident of Leuven, Belgium; and QI XIE, a citizen of Belgium and a resident of Wilsele, Belgium,

(collectively, "WE" or "ASSIGNOR") have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to METHODS FOR SELECTIVE DEPOSITION USING A SACRIFICIAL CAPPING LAYER (collectively, the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefore; and

WHEREAS, ASM IP HOLDING B.V. (hereinafter "ASSIGNEE"), a corporation having a place of business at Versterkerstraat 8, Almere, 1322 AP, Netherlands, desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all patent applications therefore, and all patents that have granted or may be granted hereafter thereon, including, but not limited to, those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed and transferred, and by these presents do hereby sell, assign, convey and transfer, unto ASSIGNEE, its successors, its legal representatives and its assigns, the entire right, title, and interest throughout the world in and to said INVENTIONS, including all patent applications therefore that may have been filed or may be filed hereafter for said INVENTIONS (including but not limited Application No(s). 16/998,220, filed on August 20, 2020, as Docket No. PAT-MC-0620-US-NP (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known)) and all rights of priority under International Conventions, Treaties, and Agreements, all utility applications, national phase applications, utility model applications, divisional applications, renewal applications, continuation applications, validation applications and design applications thereof, and all issued patents which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon;

AND WE DO HEREBY authorize and request any Official of any country or countries whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to ASSIGNEE, its successors, its legal representatives, and its assigns, in accordance with the terms of this instrument;

PATENT REEL: 053954 FRAME: 0353

Application Serial No.:	Docket No.: PAT-MC-0620-US-NP		
Filing Date: Title: METHODS FOR SELECTIVE DEPOSITION USING A SACRIFICIAL CAPPING LAYER			
AND WE DO HEREBY sell, assign, transfer, and legal representatives, and its assigns all claims for relating to any violation(s) of any of the rights a prior to the date of assignment to said ASSIGNF limited to the right to sue for, seek, obtain, collector prospective royalties to which WE may be entit to any of said patents before or after issuance;	for damages and all remedies arising out of or assigned hereby that have or may have accrued EE, or may accrue hereafter, including, but not at, recover and retain damages and any ongoing		
AND WE HEREBY covenant and agree that WE its successors, its legal representatives, and its a INVENTIONS, and will testify in any legal papplications and certificates, make all rightful deassistance to said ASSIGNEE, its successors, its and enforce patent protection for said INVENTIO	assigns, any facts known to us respecting said roceeding, sign all lawful papers, execute all sclarations and/or oaths, and provide all lawful legal representatives, and its assigns, to obtain		
EXECUTED as of the date(s) below by ASSIGN(OR:		
LUCAS PETERSEN BARBOSA LIMA			
Signature	Date		
RAMI KHAZAKA	08-18-2020		
Signature	Date		
QLXIE			

Signature

Date

Application Serial No.:	Docket No.: PAT-MC-0620-US-NI
Filing Date: Title: METHODS FOR SELECTIVE DEPOS LAYER	ITION USING A SACRIFICIAL CAPPING
legal representatives, and its assigns all clair relating to any violation(s) of any of the righ prior to the date of assignment to said ASSII limited to the right to sue for, seek, obtain, or	, and convey to said ASSIGNEE, its successors, it is for damages and all remedies arising out of outs assigned hereby that have or may have accrued GNEE, or may accrue hereafter, including, but no ollect, recover and retain damages and any ongoing entitled, or form any settlement or agreement related
its successors, its legal representatives, and INVENTIONS, and will testify in any lega applications and certificates, make all rightful	VE will communicate promptly to said ASSIGNEE its assigns, any facts known to us respecting said proceeding, sign all lawful papers, execute all declarations and/or oaths, and provide all lawful its legal representatives, and its assigns, to obtain TIONS in all countries.
EXECUTED as of the date(s) below by ASSI	GNOR:
LUCAS PETERSEN BARBOSA LIMA	
Signature	Date
RAMI KHAZAKA	
Signature	Date
OF XIF	

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08.05, 2020

Signature