# 506412794 12/18/2020

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6459551

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
ARIE JEFFREY DEN BOEF	12/13/2016
KAUSTUVE BHATTACHARYYA	09/23/2016
TIMOTHY DUGAN DAVIS	08/10/2016
PETER DAVID ENGBLOM	07/27/2016

## **RECEIVING PARTY DATA**

Name:	ASML NETHERLANDS B.V.	
Street Address: P.O. BOX 324		
City:	VELDHOVEN	
State/Country:	NETHERLANDS	
Postal Code:	5500 AH	

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	17124758

## **CORRESPONDENCE DATA**

**Fax Number:** (703)770-7901

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:** 703-770-7900

**Email:** cathy.fitzgerald@pillsburylaw.com

Correspondent Name: PILLSBURY WINTHROP SHAW PITTMAN, LLP

Address Line 1: PO BOX 10500

Address Line 4: MCLEAN, VIRGINIA 22102

ATTORNEY DOCKET NUMBER:	081468-0516500
NAME OF SUBMITTER:	CATHY M. FITZGERALD
SIGNATURE:	/Cathy M. FitzGerald/
DATE SIGNED:	12/18/2020

### **Total Attachments: 6**

source=081468-0516500-Executed Assignment-1#page1.tif source=081468-0516500-Executed Assignment-1#page2.tif source=081468-0516500-Executed Assignment-1#page3.tif

PATENT 506412794 REEL: 054698 FRAME: 0001

source=081468-0516500-Executed Assignment-1#page4.tif source=081468-0516500-Executed Assignment-1#page5.tif source=081468-0516500-Executed Assignment-1#page6.tif

PATENT REEL: 054698 FRAME: 0002

	For Administrative Purposes		
Assignee's internal reference:			and the second s
	Counterpart or related patent application of, or	Country, filing date & application number:	Initials of administrator and date:
į	for, the assigned subject matter below:		
ı			

#### **ASSIGNMENT**

In consideration of good and valuable consideration received by the ASSIGNOR(s), namely:

NAME(S) OF (1) Arie, Jeffrey DEN BOEF	(2)	Kaustuve BHATTACHARYYA
ASSIGNOR(S) (3)	(4)	
(5)	(6)	

the receipt and sufficiency of which are acknowledged by the ASSIGNOR(s), the ASSIGNOR(s) hereby sell(s), assign(s) and transfer(s) unto:

	ASML Netherlands B.V.
NAME OF	P.O. Box 324
ASSIGNEE and	5500 AH Veldhoven
ADDRESS	The Netherlands

and its or their successors, assigns and legal representatives (together and individually hereinafter "ASSIGNEE") and, to the extent already assigned or transferred to ASSIGNEE by operation of law or by a general obligation between the ASSIGNOR(s) and ASSIGNEE, the ASSIGNOR(s) hereby confirm(s) and formalize(s) the assignment and transfer to ASSIGNEE of the entire and exclusive right, title and interest for all countries, regions, territories, and other jurisdictions throughout the world, in, to and under the invention(s), improvements thereof, and all patent applications, provisional and non-provisional, (including without limitation all patent applications claiming priority and/or benefit, including without limitation all divisional, continuation, continuation-in-part, substitute, renewal and reissue applications), patents (including without limitation extensions, reissues and renewals thereof), and other intellectual property protection (including without limitation all utility models, designs and inventor certificates, and applications, extensions, renewals and reissues for the same) therefor, together with, though not in any way of limitation, all rights of priority under the International Convention for the Protection of Industrial Property and all other laws and international agreements, the right to apply for patents in ASSIGNEE's name(s), and all rights to bring suit, collect damages and settle suits for past, present or future infringements thereof, known as

TITLE OF THE INVENTION	RECIPE SELECTION BASED ON INTER-RECIPE CONSISTENCY			
	for which a patent application was executed and/or filed for:			
PCT June 10, 2016 PCT PCT/EP2016/063313			PCT/EP2016/063313	
	Country	Date	Country abbreviation	Application number

AND the ASSIGNOR(s) hereby authorize(s) and request(s) any government agency, office or official whose duty includes issuing patents or other evidence or forms of intellectual property protection on or for the aforesaid invention(s) and application(s) (including, without limitation, all applications filed in or for China, Europe, Japan, Korea, the Netherlands, United Kingdom, Germany, France, Italy, Taiwan, Singapore and the United States), to issue the same to ASSIGNEE, as the assignee(s) of all rights, title, interests thereto and/or as the applicant(s) therefor;

AND the ASSIGNOR(s) agree(s) that the attorney of record in the aforesaid application(s) shall hereinafter act on behalf of ASSIGNEE:

AND the ASSIGNOR(s) acknowledge(s) that the aforesaid invention(s) was/were made in the framework of a specific relationship to ASSIGNEE and that in this relationship the ASSIGNOR(s) is/are bound to use specific knowledge to create inventions similar to the aforesaid invention(s);

AND the ASSIGNOR(s) acknowledge(s) that the ASSIGNOR(s)'s salary or other remuneration includes fair and reasonable compensation for the assignment hereunder of the subject matter herein assigned;

AND the ASSIGNOR(s) agree(s), without further remuneration, to communicate to ASSIGNEE any facts known to the ASSIGNOR(s) respecting the aforesaid invention(s), and all related patent applications, patents, and other intellectual property protection mentioned above, and to testify in any legal proceeding, sign any lawful papers, execute any applications, make any rightful oaths or declarations, and generally provide all assistance, cooperation and information reasonably necessary for ASSIGNEE to perfect title in, prepare, complete, prosecute, obtain, maintain, preserve, enforce and/or defend the aforesaid invention(s) and all related patent applications, patents and other intellectual property protection mentioned above, and grant(s) ASSIGNEE a perpetual and irrevocable power of attorney to execute and sign in the name(s) and on behalf of the ASSIGNOR(s) any documents of any nature in pursuit of the aforesaid;

AND the ASSIGNOR(s) agree(s) not to contest or aid in contesting the validity, enforceability or ownership of the aforesaid invention(s) and all related patent applications, patents, and other intellectual property protection mentioned above;

PATENAD0038WO

REEL: 054698 FRAME: 0003

AND the ASSIGNOR(s) represent(s) and warrant(s) to have the full right to convey the subject matter herein assigned, to have obtained the consent, if applicable, of all joint owners and all inventors to the subject matter assigned herein, to have not made and will not make any agreement or license in conflict herewith, and to have not encumbered and will not encumber by any grant, license or right the subject matter herein assigned;

AND the ASSIGNOR(s) has/have not disclosed and will not disclose the aforesald invention(s) to any third party, except with the prior written consent of ASSIGNEE, prior to the date of earliest publication of the aforesald application(s);

AND the ASSIGNOR(s) hereby authorize(s) any attorneys or other representatives of ASSIGNEE to insert hereon any further identification necessary or desirable for recordation of this document, including without limitation any applicable patent or patent application number:

AND, to the extent there is a conflict between the agreement herein and any previous agreement between ASSIGNEE and any or all of the ASSIGNOR(s), the ASSIGNOR(s) agree(s) that the agreement herein controls and supersedes any such conflicting previous agreement;

AND, where permitted by law, the ASSIGNOR(s) agree(s) that the agreement herein supersedes, modifies and/or supplements the law to the extent the agreement herein provides ASSIGNEE greater rights and protections than available under the law;

AND the ASSIGNOR(s) and ASSIGNEE irrevocably waive their rights to rescind the agreement herein, including, without limitation, on the basis of article 6: 258, 265, or 270 of the Dutch Civil Code;

AND the ASSIGNOR(s) agree(s) that the agreement herein shall be exclusively construed under and governed by the laws of the Netherlands with the exclusion of conflicts of law rules;

AND the ASSIGNOR(s) agree(s) that any dispute arising from or in relation to the agreement herein shall be submitted to the exclusive jurisdiction and venue of the competent court in 's-Hertogenbosch, the Netherlands, unless ASSIGNEE in its sole discretion prefer(s) to submit such dispute to an arbitration, whereby the arbitral tribunal shall be composed of one arbitrator, the place of arbitration shall be within the Netherlands, and the arbitral procedure shall be conducted in the English language;

AND the ASSIGNOR(s) and ASSIGNEE agree that if any provision of the agreement herein is deemed to be unenforceable, void, illegal or invalid, it shall be modified so as to make it valid and enforceable, and as so modified the agreement herein shall remain in full force and effect.

DATE SIGNED

ASSIGNOR(S)

Name:	Arie, Lefrey DEN BOEF	Cate
		Date
2):		
Name:	Kaustuve BHATTACHARYYA	Date
3):		Mills County of Mills and Andrews Andrews County of the Co
Name;		Da(e
4):		advisti ma, muusetti tiid. Elissemidaan ja vahetti tiidid kii millilliiniissa, aavaja yylä ka serekkavat tii
Name:		Dale
5):	от от тут с потем то поможения от потем об общения об тут об для удостобенный из общений об общений об общений	CONTINUED SECURITIES OF the side for EDA AS MAKE as he severe remainment in manifest and removable
Name:	терина на принципалния принципа	Date
	Accioner	SATE MALE D
	ASSIGNEE	DATE SIGNED
Signor	ASML Netherlands B.V. Antonius J.M. van Hoef Vice President and Chief IP Counsel	<u>12 2AN 17-</u> Date

NL

2015P00038WO

AND the ASSIGNOR(s) represent(s) and warrant(s) to have the full right to convey the subject matter herein assigned, to have obtained the consent, if applicable, of all joint owners and all inventors to the subject matter assigned herein, to have not made and will not make any agreement or ficense in conflict herewith, and to have not encumbered and will not encumber by any grant, license or right the subject matter herein assigned;

AND the ASSIGNOR(s) has/have not disclosed and will not disclose the aforesaid invention(s) to any third party, except with the prior written consent of ASSIGNEE, prior to the date of earliest publication of the aforesaid application(s):

AND the ASSIGNOR(s) hereby authorize(s) any attorneys or other representatives of ASSIGNEE to insert hereon any further identification necessary or desirable for recordation of this document, including without limitation any applicable patent or patent application number;

AND, to the extent there is a conflict between the agreement herein and any previous agreement between ASSIGNEE and any or all of the ASSIGNOR(s), the ASSIGNOR(s) agree(s) that the agreement herein controls and supersedes any such conflicting previous agreement;

AND, where permitted by law, the ASSIGNOR(s) agree(s) that the agreement herein supersedes, modifies and/or supplements the law to the extent the agreement herein provides ASSIGNEE greater rights and protections than available under the law;

AND the ASSIGNOR(s) and ASSIGNEE irrevocably waive their rights to rescind the agreement herein, including, without limitation, on the basis of article 6: 258, 265, or 270 of the Dutch Civil Code;

AND the ASSIGNOR(s) agree(s) that the agreement herein shall be exclusively construed under and governed by the laws of the Netherlands with the exclusion of conflicts of law rules;

AND the ASSIGNOR(s) agree(s) that any dispute arising from or in relation to the agreement herein shall be submitted to the exclusive jurisdiction and venue of the competent court in 's-Hertogenbosch, the Netherlands, unless ASSIGNEE in its sole discretion prefer(s) to submit such dispute to an arbitration, whereby the arbitral tribunal shall be composed of one arbitrator, the place of arbitration shall be within the Netherlands, and the arbitral procedure shall be conducted in the English language;

AND the ASSIGNOR(s) and ASSIGNEE agree that if any provision of the agreement herein is deemed to be unenforceable, void, illegal or invalid, it shall be modified so as to make it valid and enforceable, and as so modified the agreement herein shall remain in full force and effect.

	ASSIGNOR(S)	DATE SIGNED
1):		
Name:	Arie, Jeffrey DEN BOEF	Date
2):	Kaushue Bhark	9/23/16
Name:	Kaustuve BHATTACHARYYA	Date
3):		
Name:	на заканошнациненно при податиту потоком изборото о податиту и потоком податиту на податиту	Date
4):		
Name:	мер-быштай отно и болго к мочен в в питель в в в в в может	Date
5):	ностори, в потори на на выпост достиго и по ностори в постори в под в постори в под в постори в под в под в по	
Name:	н эт того в в доступно в в постоя в в дост и по по в в в достипно в в дост в в в дост в д	Date
	ASSISTE	DATE OLOMED
yattu alkanan dhitti da keshi katala dhina da keshi alkan da keshi alkan da keshi alkan da keshi alkan da kesh	ASSIGNEE	DATE SIGNED
Company:	ASML Netherlands B.V.	Date
Signor Name:	Antonius J.M. van Hoef Vice President and Chief IP Counsel	

For Administrative Purposes			
Assignee's internal reference:			
Counterpart or related patent application of, or	Country, filing date & application number:	initials of administrator and date:	
for, the assigned subject matter below:			

#### **ASSIGNMENT**

In consideration of good and valuable consideration received by the ASSIGNOR(s), namely:

NAME OF	(1) Timothy, Dugan DAVIS	(2)	Peter, David ENGBLOM
ASSIGNOR(S)	(3)	(4)	
	(5)	(6)	

the receipt and sufficiency of which are acknowledged by the ASSIGNOR(s), the ASSIGNOR(s) hereby sell(s), assign(s) and transfer(s) unto:

	ASML Netherlands B,V.
NAME OF	P.O. Box 324
ASSIGNEE and	5500 AH Veldhoven
ADDRESS	The Netherlands

and its or their successors, assigns and legal representatives (together and individually hereinafter "ASSIGNEE") and to the extent already assigned or transferred to ASSIGNEE by operation of law or by a general obligation between the ASSIGNOR(s) and ASSIGNEE, the ASSIGNOR(s) hereby confirm(s) and formalize(s) the assignment and transfer to ASSIGNEE of, the entire and exclusive right, title and interest for all countries, regions, territories, and other jurisdictions throughout the world, in, to and under the invention(s), improvements thereof, and all patent applications, provisional and non-provisional, (including without limitation all patent applications claiming priority and/or benefit, including without limitation all divisional, continuation, continuation-in-part, substitute, renewal and reissue applications), patents (including without limitation extensions, reissues and renewals thereof), and other intellectual property protection (including without limitation all utility models, designs and inventor certificates, and applications, extensions, renewals and reissues for the same) therefore, together with, though not in any way of limitation, all rights of priority under the International Convention for the Protection of Industrial Property and all other laws and international agreements, the right to apply for patents in ASSIGNEE's name(s), and all rights to bring suit, collect damages and settle suits for past, present or future infringements thereof, known as

TITLE OF THE INVENTION	RECIPE SELECTION BASED ON INTER-RECIPE CONSISTENCY				
	☐ Which is filed herewith, or				
	☑ For which a patent application was executed and/or filed for:				
	PCT	June 10, 2016	PCT	PCT/EP2016/063313	
	Country	Date	Country abbreviation	Application number	

AND the ASSIGNOR(s) hereby authorize(s) and request(s) any government agency, office or official whose duty includes issuing patents or other evidence or forms of intellectual property protection on or for the aforesaid invention(s) and application(s) (including, without limitation, all applications filed in or for China, Europe, Japan, Korea, the Netherlands, United Kingdom, Germany, France, Italy, Taiwan, Singapore and the United States), to issue the same to ASSIGNEE, as the assignee(s) of all rights, title, interests thereto and/or as the applicant(s) therefore;

AND the ASSIGNOR(s) agree(s) that the attorney of record in the aforesaid application(s) shall hereinafter act on behalf of ASSIGNEE:

AND the ASSIGNOR(s) acknowledge(s) that the aforesaid invention(s) was/were made in the framework of a specific relationship to ASSIGNEE and that in this relationship the ASSIGNOR(s) is/are bound to use specific knowledge to create inventions similar to the aforesaid invention(s):

AND the ASSIGNOR(s) acknowledge(s) that the ASSIGNOR(s)'s salary or other remuneration includes fair and reasonable compensation for the assignment hereunder of the subject matter herein assigned;

AND the ASSIGNOR(s) agree(s), without further remuneration, to communicate to ASSIGNEE any facts known to the ASSIGNOR(s) respecting the aforesaid invention(s), and all related patent applications, patents, and other intellectual property protection mentioned above, and to testify in any legal proceeding, sign any lawful papers, execute any applications, make any rightful caths or declarations, and generally provide all assistance, cooperation and information reasonably necessary for ASSIGNEE to perfect title in, prepare, complete, prosecute, obtain, maintain, preserve, enforce and/or defend the aforesaid invention(s) and all related patent applications, patents and other intellectual property protection mentioned above, and grant(s) ASSIGNEE a perpetual and irrevocable power of attorney to execute and sign in the name(s) and on behalf of the ASSIGNOR(s) any documents of any nature in pursuit of the aforesaid;

AND the ASSIGNOR(s) agree(s) not to contest or aid in contesting the validity, enforceability or ownership of the aforesaid invention(s) and all related patent applications, patents, and other intellectual property protection mentioned above;

PATENT

AND the ASSIGNOR(s) represent(s) and warrant(s) to have the full right to convey the subject matter herein assigned, to have obtained the consent, if applicable, of all joint owners and all inventors to the subject matter assigned herein, to have not made and will not make any agreement or license in conflict herewith, and to have not encumbered and will not encumber by any grant, license or right the subject matter herein assigned:

AND the ASSIGNOR(s) has/have not disclosed and will not disclose the aforesaid invention(s) to any third party, except with the prior written consent of ASSIGNEE, prior to the date of earliest publication of the aforesaid application(s);

AND the ASSIGNOR(s) hereby authorize(s) any attorneys or other representatives of ASSIGNEE to insert hereon any further identification necessary or desirable for recordation of this document, including without limitation any applicable patent or patent application number;

AND, to the extent there is a conflict between the agreement herein and any previous agreement between ASSIGNEE and any or all of the ASSIGNOR(s), the ASSIGNOR(s) agree(s) that the agreement herein controls and supersedes any such conflicting previous agreement;

AND, where permitted by law, the ASSIGNOR(s) agree(s) that the agreement herein supersedes, modifies and/or supplements the law to the extent the agreement herein provides ASSIGNEE greater rights and protections than available under the law:

AND the ASSIGNOR(s) and ASSIGNEE irrevocably waive their rights to rescind the agreement herein, including, without limitation, on the basis of article 6: 258, 265, or 270 of the Dutch Civil Code;

AND the ASSIGNOR(s) agree(s) that the agreement herein shall be exclusively construed under and governed by United States federal law and the laws of Delaware with the exclusion of conflicts of law rules:

AND the ASSIGNOR(s) agree(s) that any dispute arising from or in relation to the agreement herein shall be submitted to the exclusive jurisdiction and venue of a court of competent jurisdiction in the states of Connecticut, Arizona or California in the United States of America, unless ASSIGNEE in its sole discretion prefer(s) to submit such dispute to an arbitration, whereby the arbitral tribunal shall be composed of one arbitrator, the place of arbitration shall be states of Connecticut, Arizona or California, and the arbitral procedure shall be conducted in the English language;

AND the ASSIGNOR(s) and ASSIGNEE agree that if any provision of the agreement herein is deemed to be unenforceable, void, illegal or invalid, it shall be modified so as to make it valid and enforceable, and as so modified the agreement herein shall remain in full force and effect.

	ASSIGNOR(S)	DATE SIGNED
1):		8/10/16
Name:	Timothy, Dygan DAVIS	/ Date/
2):		
Name;		Date
3):		
Nøme;	CONTRACTOR CONTRACTOR AND AN ACCOUNT OF THE PROPERTY OF THE PR	Dale
4):		
Name:	\$2000000 American recommendation and an accuracy was deposited in the present in the actual contract on the original accuracy recommendation and accuracy accuracy accuracy accuracy and accuracy accurac	Date
5):		
Name:		Date
i internitra materia esta di seria del deservo de esta del conservo de esta del conservo de esta del conservo	ASSIGNEE	DATE SIGNED
	MAL	
Company:	ASML Netherlands B.V.	
Signor	Antonius J.M. van Hoef	****

US

Vice President and Chief IP Counsel

Name:

2015P00038WO

AND the ASSIGNOR(s) represent(s) and warrant(s) to have the full right to convey the subject matter herein assigned, to have obtained the consent, if applicable, of all joint owners and all inventors to the subject matter assigned herein, to have not made and will not make any agreement or license in conflict herewith, and to have not encumbered and will not encumber by any grant, license or right the subject matter herein assigned;

AND the ASSIGNOR(s) has/have not disclosed and will not disclose the aforesaid invention(s) to any third party, except with the prior written consent of ASSIGNEE, prior to the date of earliest publication of the aforesaid application(s);

AND the ASSIGNOR(s) hereby authorize(s) any attorneys or other representatives of ASSIGNEE to insert hereon any further identification necessary or desirable for recordation of this document, including without limitation any applicable patent or patent application number;

AND, to the extent there is a conflict between the agreement herein and any previous agreement between ASSIGNEE and any or all of the ASSIGNOR(s), the ASSIGNOR(s) agree(s) that the agreement herein controls and supersedes any such conflicting previous agreement;

AND, where permitted by law, the ASSIGNOR(s) agree(s) that the agreement herein supersedes, modifies and/or supplements the law to the extent the agreement herein provides ASSIGNEE greater rights and protections than available under the law;

AND the ASSIGNOR(s) and ASSIGNEE irrevocably waive their rights to rescind the agreement herein, including, without limitation, on the basis of article 6: 258, 265, or 270 of the Dutch Civil Code;

AND the ASSIGNOR(s) agree(s) that the agreement herein shall be exclusively construed under and governed by United States federal law and the laws of Delaware with the exclusion of conflicts of law rules;

AND the ASSIGNOR(s) agree(s) that any dispute arising from or in relation to the agreement herein shall be submitted to the exclusive jurisdiction and venue of a court of competent jurisdiction in the states of Connecticut, Arizona or California in the United States of America, unless ASSIGNEE in its sole discretion prefer(s) to submit such dispute to an arbitration, whereby the arbitral tribunal shall be composed of one arbitrator, the place of arbitration shall be states of Connecticut, Arizona or California, and the arbitral procedure shall be conducted in the English language;

AND the ASSIGNOR(s) and ASSIGNEE agree that if any provision of the agreement herein is deemed to be unenforceable, void, illegal or invalid, it shall be modified so as to make it valid and enforceable, and as so modified the agreement herein shall remain in full force and effect.

	ASSIGNOR(S)	DATE SIGNED
1);		
Name:		Date
2):	DASC/1	07/27/2016
Name:	Peter, David ENGBLON	Date
3):		
Name:		Date
4):		eren and an analysis of the second analysis of the second and an analysis of the second analysis of the second and an analysis
Name;		Date
5):		
Name:	Procure and an address of the first of the second of the s	Date
	ASSIGNEE	DATE SIGNED
	TO A STATE OF THE TOTAL TO A STATE OF THE TOTAL OF T	the P > 1 Each New Frank Flatter be?
Company:	ASML Netherlands B.V.	Date
Signor Name:	Antonius J.M. van Hoef Vice President and Chief IP Counsel	