505411165 04/04/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5457955

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	ASSIGNMENT		

CONVEYING PARTY DATA

Name	Execution Date
MYUNG KOOK MOON	01/29/2019
JOO HYUN LEE	01/29/2019
KI SEO LIM	01/29/2019
BYOUNGIL JEON	01/29/2019
NAM-HO LEE	01/29/2019
JONG YUL KIM	01/29/2019

RECEIVING PARTY DATA

Name:	KOREA ATOMIC ENERGY RESEARCH INSTITUTE
Street Address:	111, DAEDEOK-DAERO, 989BEON-GIL, YUSEONG-GU
City:	DAEJEON
State/Country:	KOREA, REPUBLIC OF
Postal Code:	34057

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16339470

CORRESPONDENCE DATA

Fax Number: (703)991-7071

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: 703-740-8322

Email: patent@maierandmaier.com **Correspondent Name:** MAIER & MAIER, PLLC

Address Line 1: 345 SOUTH PATRICK STREET Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	02180041US		
NAME OF SUBMITTER:	CHRISTOPHER J. MAIER		
SIGNATURE:	/Christopher J. Maier/		
DATE SIGNED:	04/04/2019		
This document serves as an Oath/Declaration (37 CFR 1.63).			

PATENT REEL: 048793 FRAME: 0247

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Total Attachments: 6 source=Combined_Declaration_Assignment#page1.tif source=Combined_Declaration_Assignment#page2.tif source=Combined_Declaration_Assignment#page3.tif source=Combined_Declaration_Assignment#page4.tif source=Combined_Declaration_Assignment#page5.tif source=Combined_Declaration_Assignment#page6.tif

DECLARATION

 $\begin{array}{c} \textbf{Title of Invention:} \, \underline{\textbf{METHOD FOR DETECTING RADIONUCLIDE, PROCESS FOR DETECTING RADIONUCLIDE USING} \\ \underline{\textbf{THE SAME. AND RADIATION DETECTOR FOR THE SAME}} \end{array}$

	med inventor, I hereby declare that: on is directed to:
	The attached application, or
$\overline{\mathbb{X}}$	United States application or PCT international application number 16/339,470 , filed on April 4, 2019
inventor of a clincluding the cl	ntified application was made or authorized to be made by me. I believe I am the original inventor or an original joint laimed invention in the application. I have reviewed and understood the contents of the above-identified application, laims, and any claim amendments made in the application. I acknowledge the duty to disclose all information which is entability as defined in 37 CFR 1.56.
	owledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or for not more than five (5) years, or both.
	<u>ASSIGNMENT</u>
<u>Korea</u> , hereina RADIONUCLI THE SAME (he April 4, 2019	Myung Kook MOON, whose post office address is #613-1001 78, Baeul 2-ro, Yuseong-gu, Daejeon 34023, South fter referred to as Assignor, am the owner of useful improvements in METHOD FOR DETECTING DE, PROCESS FOR DETECTING RADIONUCLIDE USING THE SAME, AND RADIATION DETECTOR FOR creinafter referred to as the INVENTION) for which the above application for United States Letters Patent was filed on: Serial No.: 16/339,470; or established by PCT International Patent Application No.:filed: United States of America;
Yuscong-gu, D	KOREA ATOMIC ENERGY RESEARCH INSTITUTE, whose post office address is 111. Daedeok-daero, 989beon-gil, acjcon 34057, South Korea, hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest me in the United States;
do sell, assign	REFORE, for good and valuable consideration, receipt of which is hereby acknowledged. I, ASSIGNOR, by these presents and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout es of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue ion.
maintenance of that may be req without further and informatio testimony on b any patent app	GNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and said application or any other patent application(s) in the United States for said Invention, including additional documents quired to affirm the rights of ASSIGNEE in and to said Invention, all without further consideration. ASSIGNOR also agrees, consideration and at ASSIGNEE's expense, to identify and communicate to ASSIGNEE at ASSIGNEE's request documents in concerning the Invention that are within ASSIGNOR's possession or control, and to provide further assurances and ehalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of lication or patent encompassed within the terms of this instrument. ASSIGNOR'S obligations under this instrument shall GNOR'S heirs, executors, administrators and other legal representatives.
Patent referred and behoof; an	IGNOR hereby authorizes and requests the Director of the U.S. Patent and Trademark office to issue any and all Letters to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use d for the use and behoof of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not
	R authorizes any member of the firm of Maier & Maier, PLLC to insert or complete any information in this document at its recordal in the U.S. Patent and Trademark Office.
Legal Name of	Inventor: Myung Kook MOON
x Y	4 1017 x Ten 29. 2019

Date

Inventor's Signature

 $\frac{\text{METHOD FOR DETECTING RADIONUCLIDE, PROCESS FOR DETECTING RADIONUCLIDE USING }{\text{THE SAME, AND RADIATION DETECTOR FOR THE SAME}}$

<u>DECLARATION</u>
As a below named inventor, I hereby declare that:
This declaration is directed to: The attached application, or
United States application or PCT international application number 16/339,470 , filed on April 4, 2019
The above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understood the contents of the above-identified application, including the claims, and any claim amendments made in the application. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.
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.
ASSIGNMENT
WHEREAS, I, Joo Hyun LEE, whose post office address is #106-1203 65, Cheongsa-ro, Seo-gu, Daejeon 35216, South Korea, hereinafter referred to as ASSIGNOR, am the owner of useful improvements in METHOD FOR DETECTING RADIONUCLIDE, PROCESS FOR DETECTING RADIONUCLIDE USING THE SAME, AND RADIATION DETECTOR FOR THE SAME (hereinafter referred to as the INVENTION) for which the above application for United States Letters Patent was filed on: April 4, 2019 Serial No.: 16/339,470; or established by PCT International Patent Application No.:filed: designating the United States of America;
WHEREAS, KOREA ATOMIC ENERGY RESEARCH INSTITUTE, whose post office address is 111. Daedeok-daero, 989beon-gil, Yuscong-gu. Dacicon 34057, South Korea, hereinaster referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States;
NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application.
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said Invention, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said Invention, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and communicate to ASSIGNEE at ASSIGNEE's request documents and information concerning the Invention that are within ASSIGNOR's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's heirs, executors, administrators and other legal representatives.
ALSO. ASSIGNOR hereby authorizes and requests the Director of the U.S. Patent and Trademark office to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE's sole use and behoof; and for the use and behoof of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.
ASSIGNOR authorizes any member of the firm of Maier & Maier, PLLC to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.
Legal Name of Inventor: Joo Hyun LEE
$\frac{x}{x}$ 0 $\frac{1}{2}$ $\frac{1}{3}$ $\frac{x}{x}$ $\frac{1}{2}$ $\frac{29}{x}$ $\frac{2019}{x}$ Date
mychol 8 olghaluic Date

Title of Invention: METHOD FOR DETECTING RADIONUCLIDE, PROCESS FOR DETECTING RADIONUCLIDE USING THE SAME, AND RADIATION DETECTOR FOR THE SAME

DECLARATION
As a below named inventor, I hereby declare that: This declaration is directed to:
The attached application, or
United States application or PCT international application number 16/339,470 , filed on April 4, 2019
The above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understood the contents of the above-identified application, including the claims, and any claim amendments made in the application. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56. 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.
ASSIGNMENT
WHEREAS, I, <u>Ki Seo LIM</u> , whose post office address is #501 4-14, Yeonhui-ro 4-gil, Seodaemun-gu, Seoul 03784, South Korea, hereinafter referred to as ASSIGNOR, am the owner of useful improvements in <u>METHOD FOR DETECTING RADIONUCLIDE</u> , <u>PROCESS FOR DETECTING RADIONUCLIDE USING THE SAME. AND RADIATION DETECTOR FOR THE SAME</u> (hereinafter referred to as the INVENTION) for which the above application for United States Letters Patent was filed on: <u>April 4, 2019</u> Serial No.: <u>16/339,470</u> , or established by PCT International Patent Application No.: filed: designating the United States of America;
WHEREAS, KOREA ATOMIC ENERGY RESEARCH INSTITUTE, whose post office address is 111. Daedeok-daero, 989beon-gil, Yuseong-gu, Daejeon 34057, South Korea, hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States;
NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application.
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said Invention, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said Invention, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and communicate to ASSIGNEE at ASSIGNEE's request documents and information concerning the Invention that are within ASSIGNOR's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's heirs, executors, administrators and other legal representatives.
ALSO, ASSIGNOR hereby authorizes and requests the Director of the U.S. Patent and Trademark office to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use and behoof; and for the use and behoof of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.
ASSIGNOR authorizes any member of the firm of Maier & Maier, PLLC to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.
Legal Name of Inventor: Ki Seo LIM
x 51 71 M x Jan 29, 2019

Date

Inventor's Signature

DECLARATION AND ASSIGNMENT

Tide of Invention: METHOD FOR DETECTING RADIONUCLIDE, PROCESS FOR DETECTING RADIONUCLIDE USING THE SAME, AND RADIATION DETECTOR FOR THE SAME.

		<u>DECLARATION</u>
	w named investor, I hereby decis	re that:
	gration is directed to. The attached application, or	VI.
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inventor o including	f a claimed invention in the app	or authorized to be made by me. I believe I am the original inventor or an original joint lication. I have reviewed and understood the contents of the above-identified application, ments made in the application. I acknowledge the duty to disclose all information which is \$K 1.56.
	acknowledge that any willful frent of not more than five (5) year	alse statement made in this declaration is punishable under 18 USC 1001 by fine or us, or both.
		ASSIGNMENT
hereinafter <u>PROCESS</u> (hereinafte Serial No.:	referred to as ANSIGNOR, am the FOR DETECTING RADIONUT referred to as the INVENTION) to	office address is #106-304-300. Munji-ro. Yuseong-eu. Dacjeon 14050. South Korea. owner of useful improvements in METHOD FOR DETECTING RADIONECLIDE. CLIDE USING THE SAME. AND RADIATION DETECTOR FOR THE SAME which the above application for United States Letters Patent was filed on April 4, 2019, or established by PCT International Patent Application No
Yuscone-s		FRESEARCH INSTITUTE, whose post office address is 111. Daedeck-daero, 989beom-gd, nereinafter referred to as ASSONIE, is desirous of acquiring the entire right, little and interest.
do sell, as:	ign and transfer unto said ASSIC! States of America, including any	tible consideration, receipt of which is hereby acknowledged, I, Asstinos, by these presents SEE, the entire right, title, and interest in and to said INVENTION and application throughout and all Letters Patent granted on any division, continuation, continuation-in-part and reissue
maintenan- that may b without fu- and inform- testimony any patent	re of said application or any other e required to affirm the rights of A riber consideration and at ASSICN tation concerning the INVENTION on behalf of ASSICNUE that lawfu application or patent encompass	te any documents that legally may be required in connection with the filing, prosecution and patent application(s) in the United States for said INVENTION, including additional documents USSIGNEF in and to said INVENTION, all without further consideration. Assignor also agrees, see a repense, to identify and communicate to Assigner at Assigner's request documents that are within Assignors possession or control, and to provide further assurances and fly may be required of Assignor in respect of the prosecution, maintenance and defense of ed within the terms of this instrument. Assignor obligations under this instrument shall nistrators and other legal representatives.
Patent refe and behoo	rred to above to ASSIGNEE, as the f, and for the use and behoof of , and may be granted, as fully and	requests the Director of the U.S. Patent and Trademark office to issue any and all Letters: ASSIGNEE of the entire right, this and interest in and to the same, for ASSIGNEE's sole use ASSIGNEE's legal representatives and successors, to the full end of the term for which such entirely as the same would have been held by ASSIGNEE had this assignment and sale not
	NOR authorizes any member of i effect its recordal in the U.S. Pate	the firm of Maier & Maier, PLLC to insert or complete any information in this document in and Trademark Office.
Legal Nan	ne of Inventor: <u>Byonneti JEON</u>	
*	11 H OL	V Janori 29 2-019
Inventor's	Signature	x January 39, 2019 Date

Title of Invention: METHOD FOR DETECTING RADIONUCLIDE, PROCESS FOR DETECTING RADIONUCLIDE USING THE SAME, AND RADIATION DETECTOR FOR THE SAME

<u>DECLARATION</u>
As a below named inventor, I hereby declare that: This declaration is directed to:
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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.
ASSIGNMENT
WHEREAS, I. Nam-Ho LEE, whose post office address is #103-1504 11. Baekdong 2-gil, Deokjin-gu, Jeonju-si, Jeollabuk-do 54906, South Korea, hereinafter referred to as ASSIGNOR, am the owner of useful improvements in METHOD FOR DETECTING RADIONUCLIDE, PROCESS FOR DETECTING RADIONUCLIDE USING THE SAME, AND RADIATION DETECTOR FOR THE SAME (hereinafter referred to as the INVENTION) for which the above application for United States Letters Patent was filed on: April 4, 2019 Serial No.: 16/339,470 ; or established by PCT International Patent Application No.:filed: designating the United States of America;
WHEREAS, KOREA ATOMIC ENERGY RESEARCH INSTITUTE, whose post office address is 111. Daedeok-daero, 989beon-gil, Yuseong-gu, Daejeon 34057, South Korea, hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States;
NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application.
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ASSIGNOR authorizes any member of the firm of Maier & Maier, PLLC to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.
Legal Name of Inventor: Nam-Ho LEE
$\frac{x}{\text{Inventor's Signature}}$ $\frac{x}{\text{Jan } 29}$, $\frac{x}{\text{Jon } 29}$, $\frac{x}{\text{Jos } 29}$

Title of Invention: METHOD FOR DETECTING RADIONUCLIDE, PROCESS FOR DETECTING RADIONUCLIDE USING THE SAME, AND RADIATION DETECTOR FOR THE SAME

	<u>D</u>	ECLARATION				
	w named inventor, Thereby deciare that: nation is directed to:					
<u></u>	The anached application, or		17/220 470		A	2010
X	United States application or PCT internati	ional application number [16/339,470	, itied t	m April 4,	2019
inventor of including t	identified application was made or authorized a claimed invention in the application. I have be claims, and any claim amendments made in opatemability as defined in 37 CFR 1.55.	reviewed and understook	d the content	s of the at	xove-identific	d application,
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hereinaster <u>PROCESS</u> (hereinaster Serial No.:	B. I. Jong Yul KiM, whose post office address is referred to as ASSIGNOR, am the owner of useful FOR DETECTING RADIONICTIDE USING referred to as the INVENTION) for which the above 16/339,470 or established the United States of America.	I improvements in <u>METH</u> <u>THE SAME_AND RA</u> we application for United S	<u>OD FOR DE</u> DIATION D lides Letters F	TECTING ETECTOR Valent was	RADIONUS FOR THE filed on Apr	LIDE. SAME il 4, 2019
Yuseone-2	AS, <u>KOREA ATOMIC ENERGY RESEARCH I</u> <u>a. Daejeon 34057, South Korea</u> hereimafter refer te same in the United States;					
do sell, ass	THEREFORE, for good and valuable considerate ign and transfer unto said AssioNFF, the entire of States of America, including any and all Letters P lication.	ight, title, and interest in a	nd to said IN	ZENTION &	id application	throughout
maintenance that may be without fur and informatestimony c any patent	Assignow hereby agrees to evecute any document to of said application or any other patent application required to affirm the rights of Assigner, in and their consideration and at Assigner's expense, to attorn concerning the Invention that are within on hehalf of Assigner that lawfully may be required polication or patent encompassed within the telescond of Sciences, administrators and or	m(s) in the United States for to said Is Vention, all with a identify and communica Assumon's possession of ited of Assumon in respe- trus of this incrument. A	or said beVENT sout further of the to Assitibili or control, and it of the prose	ton, includ onsideratio E at Assic I to provid cution, ma	ling additions a. Assaurce (NEE'S reques le further assummenance an	d documents sliso agrees documents urances and d defense of
Patent refe and behoof	ASSIGNOR hereby authorizes and requests the Di ried to above to ASSIGNEE, as the ASSIGNEE of the frand for the use and hehoof of ASSIGNEE's logal cut may be granted, as fully and entirely as the t	ne entire right, title and im I representatives and succ	erest in and t essors, to the	o the same full end of	, for Assigni the term for	E's sole use which such
	NOR authorizes any member of the firm of Maid effect its recordal in the U.S. Patent and Trademsi		rt or complet	e any info	rassion in th	is document
Legal Nam	ic of Inventor: <u>Long Yui KIM</u>					
X	min global frager	X	Jan	24	2019	
Inventor's	Signature	Date				*

PATENT REEL: 048793 FRAME: 0254

RECORDED: 04/04/2019