

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5672625

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the 20TH INVENTOR'S NAME TO CHUNGKYU LEE FROM CHANGKYU LEE previously recorded on Reel 049062 Frame 0515. Assignor(s) hereby confirms the 20TH INVENTOR'S NAME SHOULD BE CORRECTED AS CHUNGKYU LEE.
CONVEYING PARTY DATA	
Name	Execution Date
UEN DO LEE	04/29/2019
BYEONG RYEOL BANG	04/29/2019
YOUNG DOO KIM	04/29/2019
SOO HWA JEONG	04/29/2019
CHANG WON YANG	04/29/2019
JAE GOO LEE	04/29/2019
TAE YOUNG MUN	04/29/2019
MYUNG WON SEO	04/29/2019
JI HONG MOON	04/29/2019
HYUN SEOL PARK	04/29/2019
JOON MOK SHIM	04/29/2019
YOUNG CHEOL PARK	04/29/2019
DO WON SHUN	04/29/2019
JONG HO MOON	04/29/2019
DAL HEE BAE	04/29/2019
SUNG HO JO	04/29/2019
YUN TAE HWANG	04/29/2019
SANG IN KEEL	04/29/2019
JIN HAN YUN	04/29/2019
CHUNGKYU LEE	04/29/2019
PIL WOO HEO	04/29/2019
RECEIVING PARTY DATA	
Name:	KOREA INSTITUTE OF INDUSTRIAL TECHNOLOGY
Street Address:	89, YANGDAEGIRO-GIL, IPJANG-MYEON, SEOBUK-GU
City:	CHEONAN-SI, CHUNGCHONGNAM-DO
State/Country:	KOREA, REPUBLIC OF
Postal Code:	31056
Name:	KOREA INSTITUTE OF ENERGY RESEARCH

PATENT

Street Address:	152, GAJEONG-RO YUSEONG-GU
City:	DAEJEON
State/Country:	KOREA, REPUBLIC OF
Postal Code:	34129
Name:	KOREA INSTITUTE OF MACHINERY & MATERIALS
Street Address:	156, GAJEONGBUK-RO, YUSEONG-GU
City:	DAEJEON
State/Country:	KOREA, REPUBLIC OF
Postal Code:	34013

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16401465

CORRESPONDENCE DATA

Fax Number: (202)408-0924

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: 202-371-8976

Email: firm@rabinberdo.com

Correspondent Name: RABIN & BERDO, P.C.

Address Line 1: 1101 14TH ST., N.W., SUITE 500

Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	HNP-116
NAME OF SUBMITTER:	ROBERT H. BERDO, JR.
SIGNATURE:	/Robert H. Berdo, Jr./
DATE SIGNED:	08/16/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 10

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ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Uen Do LEE, Byeong Ryeol BANG, Young Doo KIM, Soo Hwa JEONG, Chang Won YANG, Jae Goo LEE, Tae Young MUN, Myung Won SEO, Ji Hong MOON, Hyun Seol PARK, Joon Mok SHIM, Young Cheol PARK, Do Won SHUN, Jong Ho MOON, Dal Hee BAE, Sung Ho JO, Yun Tae HWANG, Sang In KEEL, Jin Han YUN, ChungKyu LEE and Pil Woo HEO of Republic of Korea; hereinafter referred to collectively as the assignor and inventor, has invented a certain improvement relating to

FLUID SAND FALLING TYPE CIRCULATING FLUIDIZED BED BOILER WITH A PLURALITY OF RISERS AND METHOD OF OPERATING THE SAME

☒ said application being attached hereto;

☐ said application having been filed in the United States Patent and Trademark Office on

_____, as Application Serial No. _____, and was amended on _____.

(if applicable);

☐ the specification of which was filed under the Patent Cooperation Treaty on _____.

Serial No. _____ United States of America being designated.

AND WHEREAS KOREA INSTITUTE OF INDUSTRIAL TECHNOLOGY of Cheonan-si, Chungcheongnam-do, Republic of Korea, KOREA INSTITUTE OF ENERGY RESEARCH of Daejeon, Republic of Korea, and KOREA INSTITUTE OF MACHINERY & MATERIALS of Daejeon, Republic of Korea; hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

As an above-named inventor, I hereby declare that the above-identified application was made or authorized to be made by me, and 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 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Address all correspondence and telephone calls to Rabin & Berdo, P.C., 1101 14th Street, N.W., Suite 500, Washington, D.C. 20005, Telephone: (202) 371-8976; Fax: (202) 408-0924, Customer No. 23995.

Continued – Page 2

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (SOLE OR FIRST INVENTOR):

Signature: 

Legal Name: Uen Do LEE

Date: 2019. 4. 29

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (SECOND INVENTOR):

Signature: 방열외

Legal Name: Byeong Ryeol BANG

Date: 2019. 4. 29

WITNESS:


Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (THIRD INVENTOR):

Signature: 

Legal Name: Young Doo KIM

Date: 2019. 04. 29

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (FOURTH INVENTOR):

Signature: 

Legal Name: Soo Hwa JEONG

Date: 2019. 04. 29

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (FIFTH INVENTOR):

Signature: 양창원

Legal Name: Chang Won YANG

Date: 2019. 4. 29

Continued - Page 3

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (SIXTH INVENTOR):

Signature: 07227

Legal Name: Jae Goo LEE

Date: 2019. 04. 29

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (SEVENTH INVENTOR):

Signature: [Signature]

Legal Name: Tae Young MUN

Date: 2019. 04. 29

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (EIGHTH INVENTOR):

Signature: [Signature]

Legal Name: Myung Won SEO

Date: 2019. 04. 29

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (NINETH INVENTOR):

Signature: [Signature]

Legal Name: Ji Hong MOON

Date: 2019. 04. 29

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (TENTH INVENTOR):

Signature: [Signature]

Legal Name: Hyun Seol PARK

Date: 2019. 04. 29

Continued - Page 4

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WITNESS:

Signature: 이용혁
Name: LEE, Yong Hyuk
Address: 13, Hyoryeong-ro 60-gil, Seocho-gu
SEOUL, KOREA

ASSIGNOR (ELEVENTH INVENTOR):

Signature: [Signature]
Legal Name: Joon Mok SHIM
Date: 2018. 04. 29

WITNESS:

Signature: 이용혁
Name: LEE, Yong Hyuk
Address: 13, Hyoryeong-ro 60-gil, Seocho-gu
SEOUL, KOREA

ASSIGNOR (TWELFTH INVENTOR):

Signature: Young Cheol Park
Legal Name: Young Cheol PARK
Date: 2019. 04. 29

WITNESS:

Signature: 이용혁
Name: LEE, Yong Hyuk
Address: 13, Hyoryeong-ro 60-gil, Seocho-gu
SEOUL, KOREA

ASSIGNOR (THIRTEENTH INVENTOR):

Signature: [Signature]
Legal Name: Do Won SHUN
Date: 2019. 04. 29

WITNESS:

Signature: 이용혁
Name: LEE, Yong Hyuk
Address: 13, Hyoryeong-ro 60-gil, Seocho-gu
SEOUL, KOREA

ASSIGNOR (FOURTEENTH INVENTOR):

Signature: [Signature]
Legal Name: Jong Ho MOON
Date: 2019. 04. 29

WITNESS:

Signature: 이용혁
Name: LEE, Yong Hyuk
Address: 13, Hyoryeong-ro 60-gil, Seocho-gu
SEOUL, KOREA

ASSIGNOR (FIFTEENTH INVENTOR):

Signature: [Signature]
Legal Name: Dal Hee BAE
Date: 2019. 04. 29

Continued - Page 5

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

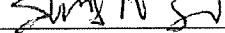
WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu
SEOUL, KOREA

ASSIGNOR (SIXTEENTH INVENTOR):

Signature: 

Legal Name: Sung Ho JO

Date: 2019. 04. 29

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu
SEOUL, KOREA

ASSIGNOR (SEVENTEENTH INVENTOR):

Signature: 

Legal Name: Yun Tae HWANG

Date: 2019. 04. 29

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu
SEOUL, KOREA

ASSIGNOR (EIGHTEENTH INVENTOR):

Signature: 

Legal Name: Sang In KEEL

Date: 2019. 4. 29

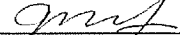
WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu
SEOUL, KOREA

ASSIGNOR (NINETEENTH INVENTOR):

Signature: 

Legal Name: Jin Han YUN

Date: 2019. 4. 29

WITNESS:

Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu
SEOUL, KOREA

ASSIGNOR (TWENTIETH INVENTOR):

Signature: 

Legal Name: ChungKyu LEE

Date: 2019. 4. 29

Continued – Page 6

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WITNESS:


Signature: 이용혁

Name: LEE, Yong Hyuk

Address: 13, Hyoryeong-ro 60-gil, Seocho-gu

SEOUL, KOREA

ASSIGNOR (TWENTY FIRST INVENTOR):

Signature: 

Legal Name: PIl Woo HEO

Date: 2019. 4. 29

RABIN & BERDO, P.C., Washington, D.C.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

MAY 3, 2019

PTAS

RABIN & BERDO, P.C.
1101 14TH ST., N.W., SUITE 500
WASHINGTON, DC 20005

505457353

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 05/02/2019

REEL/FRAME: 049062/0515
NUMBER OF PAGES: 8

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: HNP-116

ASSIGNOR:

LEE, UEN DO

DOC DATE: 04/29/2019

ASSIGNOR:

BANG, BYEONG RYEOL

DOC DATE: 04/29/2019

ASSIGNOR:

KIM, YOUNG DOO

DOC DATE: 04/29/2019

ASSIGNOR:

JEONG, SOO HWA

DOC DATE: 04/29/2019

ASSIGNOR:

YANG, CHANG WON

DOC DATE: 04/29/2019

ASSIGNOR:

LEE, JAE GOO

DOC DATE: 04/29/2019

ASSIGNOR:

MUN, TAE YOUNG

DOC DATE: 04/29/2019

ASSIGNOR: SEO, MYUNG WON	DOC DATE: 04/29/2019
ASSIGNOR: MOON, JI HONG	DOC DATE: 04/29/2019
ASSIGNOR: PARK, HYUN SEOL	DOC DATE: 04/29/2019
ASSIGNOR: SHIM, JOON MOK	DOC DATE: 04/29/2019
ASSIGNOR: PARK, YOUNG CHEOL	DOC DATE: 04/29/2019
ASSIGNOR: SHUN, DO WON	DOC DATE: 04/29/2019
ASSIGNOR: MOON, JONG HO	DOC DATE: 04/29/2019
ASSIGNOR: BAE, DAL HEE	DOC DATE: 04/29/2019
ASSIGNOR: JO, SUNG HO	DOC DATE: 04/29/2019
ASSIGNOR: HWANG, YUN TAE	DOC DATE: 04/29/2019
ASSIGNOR: KEEL, SANG IN	DOC DATE: 04/29/2019
ASSIGNOR: YUN, JIN HAN	DOC DATE: 04/29/2019
ASSIGNOR: LEE, CHANGKYU	DOC DATE: 04/29/2019
ASSIGNOR: HEO, PIL WOO	DOC DATE: 04/29/2019
ASSIGNEE: KOREA INSTITUTE OF INDUSTRIAL THCHNOLOGY 89, YANGDAEGIRO-GIL, IPJANG-MYEON, SEOBUK-GU CHEONAN-SI, CHUNGCHEONGNAM-DO, KOREA, REPUBLIC OF 31056	
ASSIGNEE: KOREA INSTITUTE OF ENERGY RESEARCH 152, GAJEONG-RO YUSEONG-GU DAEJEON, KOREA, REPUBLIC OF 34129	
ASSIGNEE: KOREA INSTITUTE OF MACHINERY & MATERIALS 156, GAJEONGBUK-RO, YUSEONG-GU DAEJEON, KOREA, REPUBLIC OF 34103	

APPLICATION NUMBER: 16401465

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: FLUID SAND FALLING TYPE CIRCULATING FLUIDIZED BED BOILER WITH A
PLURALITY OF RISERS AND METHOD OF OPERATING THE SAME

ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5504156

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
UEN DO LEE	04/29/2019
BYEONG RYEOL BANG	04/29/2019
YOUNG DOO KIM	04/29/2019
SOO HWA JEONG	04/29/2019
CHANG WON YANG	04/29/2019
JAE GOO LEE	04/29/2019
TAE YOUNG MUN	04/29/2019
MYUNG WON SEO	04/29/2019
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DO WON SHUN	04/29/2019
JONG HO MOON	04/29/2019
DAL HEE BAE	04/29/2019
SUNG HO JO	04/29/2019
YUN TAE HWANG	04/29/2019
SANG IN KEEL	04/29/2019
JIN HAN YUN	04/29/2019
CHANGKYU LEE	04/29/2019
PIL WOO HEO	04/29/2019

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Postal Code:	31056
Name:	KOREA INSTITUTE OF ENERGY RESEARCH
Street Address:	152, GAJEONG-RO YUSEONG-GU
City:	DAEJEON

PATENT

RECORDED: 08/16/2019

REEL: 050078 FRAME: 0929