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| <b>PATENT ASSIGNMENT COVER SHEET</b> |
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5853941

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| <b>SUBMISSION TYPE:</b>      | NEW ASSIGNMENT |
| <b>NATURE OF CONVEYANCE:</b> | ASSIGNMENT     |

**CONVEYING PARTY DATA**

| Name         | Execution Date |
|--------------|----------------|
| PING NING    | 12/03/2019     |
| LIANGTAO YIN | 12/03/2019     |
| QIULIN ZHANG | 12/03/2019     |
| LIJUAN JIA   | 12/03/2019     |
| ZAIFEI YIN   | 12/03/2019     |
| BO LI        | 12/03/2019     |
| SHAOMING LI  | 12/03/2019     |
| BIN LI       | 12/03/2019     |

**RECEIVING PARTY DATA**

|                        |   |
|------------------------|---|
| <b>Name:</b>           | KUNMING UNIVERSITY OF SCIENCE AND TECHNOLOGY                                |
| <b>Street Address:</b> | NO. 253, XUEFU ROAD, WUHUA DISTRICT   |
| <b>City:</b>           | KUNMING, YUNNAN   |
| <b>State/Country:</b>  | CHINA   |
| <b>Postal Code:</b>    | 650093  |
| <b>Name:</b>           | PINGXIANG HUAXING ENVIRONMENTAL PROTECTION ENGINEERING TECHNOLOGY CO., LTD. |
| <b>Street Address:</b> | PINGXIANG CERAMIC INDUSTRY BASE, XIANGDONG DISTRICT                         |
| <b>City:</b>           | PINGXIANG, JIANGXI  |
| <b>State/Country:</b>  | CHINA   |

**PROPERTY NUMBERS Total: 1**

| Property Type              | Number   |
|----------------------------|----------|
| <b>Application Number:</b> | 16705361 |

**CORRESPONDENCE DATA**

**Fax Number:** (704)444-1111

*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:** 7044441000

**Email:** usptomail@alston.com

**Correspondent Name:** ALSTON & BIRD LLP

**Address Line 1:** BANK OF AMERICA PLAZA, 101 SOUTH TRYON STREET

**PATENT**

**Address Line 2:** SUITE 4000  
**Address Line 4:** CHARLOTTE, NORTH CAROLINA 28280-4000

**ATTORNEY DOCKET NUMBER:** 069332/541272

**NAME OF SUBMITTER:** CHRISTOPHER J. GEGG

**SIGNATURE:** /Christopher J. Gegg/

**DATE SIGNED:** 12/06/2019

This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 10**

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DECLARATION AND ASSIGNMENT  
FOR PATENT AND DESIGN APPLICATIONS

|                       |   |
|-----------------------|---|
| Title of<br>Invention | SYSTEM AND METHOD FOR DESULFURIZATION AND<br>DENITRIFICATION INTEGRATED TREATMENT AND<br>RECYCLING OF FLUE GAS BY USING RED MUD |
|-----------------------|---|

I. DECLARATION

As the below named inventor, I, hereinafter referred to as the undersigned, hereby declare that:

This declaration is directed to:

- the attached application, or
- United States Application No. filed on;
- Application claims priority to CN Application No. 201811487658. 4, filed December 6, 2018, all applications listed above being hereinafter referred to as the "application(s)";

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 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

## II. ASSIGNMENT

Whereas, I have invented certain new and useful improvements in the application identified above; and

Whereas,

**Kunming University of Science and Technology**  
No. 253, Xuefu Road, Wuhua District  
Kunming, Yunnan 650093  
China

and

**Pingxiang Huaxing Environmental Protection Engineering Technology Co., Ltd.**  
Pingxiang Ceramic Industry Base, Xiangdong District  
Pingxiang City, Jiangxi Province  
China

hereinafter referred to as Assignee, is desirous of acquiring the entire right, title, and interest in and to said invention as described in the application identified above, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned has sold and assigned, and by these presents hereby sells and assigns, unto said assignee its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries, in and to the invention identified above, including said application for United States Letters Patent, all divisional, renewal, substitute, continuation, nonprovisionals, continuation-in-part, and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues, reexaminations, and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers,

declarations, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may embody said inventions, and to testify in any proceedings relating to said inventions, patent applications, and/or Letters Patent.

This Assignment is deemed to be effective at least as early as the earliest priority date.

NING Ping (Signature) Date: December 3, 2019  
NING, Ping

XU Siyuan Date: December 3, 2019  
First Witness Date

XU Siyuan  
Printed or Typed Name of First Witness

MA Yanping Date: December 3, 2019  
Second Witness Date

MA Yanping  
Printed or Typed Name of Second Witness

This Assignment is deemed to be effective at least as early as the earliest priority date.

YIN Liangtao (Signature) Date: December 3, 2019  
YIN, Liangtao

XU Siyuan  
First Witness

December 3, 2019  
Date

XU Siyuan  
Printed or Typed Name of First Witness

MA Yanning  
Second Witness

December 3, 2019  
Date

MA Yanning  
Printed or Typed Name of Second Witness

This Assignment is deemed to be effective at least as early as the earliest priority date.

ZHANG Qiulin (Signature) Date: December 3, 2019  
ZHANG, Qiulin

XU Siyuan  
First Witness

December 3, 2019  
Date

XU, Siyuan  
Printed or Typed Name of First Witness

MA, Yanping  
Second Witness

December 3, 2019  
Date

MA, Yanping  
Printed or Typed Name of Second Witness

This Assignment is deemed to be effective at least as early as the earliest priority date.

TIA, Lijuan (Signature) Date: December 3, 2019  
JIA, Lijuan

XU Siyuan First Witness Date: December 3, 2019

XU Siyuan  
Printed or Typed Name of First Witness

MA Yanping Second Witness Date: December 3, 2019

MA Yanping  
Printed or Typed Name of Second Witness



This Assignment is deemed to be effective at least as early as the earliest priority date.

YIN, Zaifei (Signature) Date: December 3, 2019  
YIN, Zaifei

XU Siyuan First Witness Date: December 3, 2019  
Date

XU Siyuan  
Printed or Typed Name of First Witness

MA, Yanping Second Witness Date: December 3, 2019  
Date

MA, Yanping  
Printed or Typed Name of Second Witness

This Assignment is deemed to be effective at least as early as the earliest priority date.

LI Bo (Signature) Date: December 3, 2019  
**LI, Bo**

XU Siyuan First Witness Date: December 3, 2019

XU Siyuan  
Printed or Typed Name of First Witness

MA Yangping Second Witness Date: December 3, 2019

MA Yangping  
Printed or Typed Name of Second Witness

This Assignment is deemed to be effective at least as early as the earliest priority date.

LI, Shaoming (Signature) Date: December 3, 2019  
**LI, Shaoming**

XU, Siyuan  
First Witness

December 3, 2019  
Date

XU, Siyuan  
Printed or Typed Name of First Witness

MA, Yanping  
Second Witness

December 3, 2019  
Date

MA, Yanping  
Printed or Typed Name of Second Witness

This Assignment is deemed to be effective at least as early as the earliest priority date.

Li Bin (Signature) Date: December 3, 2019  
LI, Bin

XU Siyuan First Witness Date: December 3, 2019  
Date  
XU Siyuan  
Printed or Typed Name of First Witness

MA Yanping Second Witness Date: December 3, 2019  
Date  
MA Yanping  
Printed or Typed Name of Second Witness