#### 508194084 10/25/2023

### PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE:      | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT     |

#### **CONVEYING PARTY DATA**

| Name         | Execution Date |
|--------------|----------------|
| WEIYAO GUO   | 10/25/2023     |
| LEXIN CHEN   | 10/25/2023     |
| YAN TAN      | 10/25/2023     |
| YUNLIANG TAN | 10/25/2023     |
| TONGBIN ZHAO | 10/25/2023     |

#### **RECEIVING PARTY DATA**

| Name:           | SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY |  |
|-----------------|---|--|
| Street Address: | NO. 579, QIANWANGANG ROAD, HUANGDAO DISTRICT  |  |
| City:           | QINGDAO                                       |  |
| State/Country:  | CHINA   |  |

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

| Property Type       | Number   |  |
|---------------------|----------|--|
| Application Number: | 18178385 |  |

#### **CORRESPONDENCE DATA**

Fax Number:

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:** 6175801293

**Email:** qianqianwu2016@gmail.com

Correspondent Name: QIANQIAN WU
Address Line 1: 64 BANK ST

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| ATTORNEY DOCKET NUMBER: | D-BAXW-05001-UUS |
|-------------------------|------------------|
| NAME OF SUBMITTER:      | QIANQIAN WU      |
| SIGNATURE:              | /Qianqian WU/    |
| DATE SIGNED:            | 10/25/2023       |

**Total Attachments: 5** 

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PATENT 508194084 REEL: 065348 FRAME: 0267

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PATENT REEL: 065348 FRAME: 0268

| Attorney<br>Docket<br>Number   | D-BAXW-05001-UUS  |  |  |  |  |
|--|---|--|--|--|--|
| Title of<br>Invention  | COLLABORATIVE EROSION-CONTROL METHOD OF RELEASING-SPLITTING -SUPPORTING BASED ON COAL MASS PRESSURE RELIEF AND ROOF PRE-SPLITTING   |  |  |  |  |
| WHEREAS<br>invention in  | , I believe that I am the original inventor or an original joint inventor (referred to as ASSIGNOR below) of a claimed the application identified by the title above.   |  |  |  |  |
| WHEREAS  | SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY   |  |  |  |  |
| having a po  | stal address of No. 579, Qianwangang Road, Huangdao District, Qingdao, Shandong 266590, China   |  |  |  |  |
| (referred to   | as ASSIGNEE below) desires to acquire the entire right, title, and interest in and to the same in the United States;  |  |  |  |  |
| ASSIGNOR said invent division, cor   | NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, ASSIGNOR, by these presents does sell, assign and transfer unto ASSIGNEE, the entire right, title, and interest in and to said invention and application throughout the United States of America, including any and all patents granted on any division, continuation, continuation-in-part, reexamination, and reissue of said application, whether granted in an initial or supplemental examination thereof.  |  |  |  |  |
| prosecution<br>additional d<br>further cons<br>communica<br>ASSIGNOR<br>be required<br>encompass   | SIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, and maintenance of said application or any other patent applications in the United States for said invention, including ocuments that may be required to affirm the rights of ASSIGNEE in and to said invention and application, all without sideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and te to ASSIGNEE at ASSIGNEE's request documents and information concerning the invention that are within it's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent ed within the terms of this instrument. ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's iters, administrators and other legal representatives. |  |  |  |  |
| ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all patents 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 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 Practitioners associated with the Customer Number 186,261 to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office and to record the same.   |   |  |  |  |  |
| LEGAL N  | AME OF ASSIGNOR   |  |  |  |  |
| Assignor:  | Weiyao GUO <sub>Date:</sub> 03/03/2023  |  |  |  |  |
| Signature:   | /Weiyao GUO/  |  |  |  |  |

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| Docket<br>Number   | D-BAXW-05001-UUS  |   |  |  |  |
|--|---|---|--|--|--|
| Title of<br>Invention  | COLLABORATIVE EROSION-CONTROL METHOD OF RELEASING-SPLITTING -SUPPORTING BASED ON COAL MASS PRESSURE RELIEF AND ROOF PRE-SPLITTING   |   |  |  |  |
|  | S, I believe that I am the original inventor or an original joint inventor (in the application identified by the title above.   | referred to as ASSIGNOR below) of a claimed   |  |  |  |
| WHEREAS  | S, SHANDONG UNIVERSITY OF SCIENCE AND TE  | ECHNOLOGY   |  |  |  |
| having a po  | nostal address of No. 579, Qianwangang Road, Huangdao District,   | Qingdao, Shandong 266590, China   |  |  |  |
| (referred to   | o as ASSIGNEE below) desires to acquire the entire right, title, and int  | erest in and to the same in the United States;  |  |  |  |
| ASSIGNOF said invent division, con   | OW, THEREFORE, for good and valuable consideration, the receipt and the presents does sell, assign and transfer unto ASSIGN intion and application throughout the United States of America, into the united States of America, into the united States of Said application, and reissue of said application thereof.   | EE, the entire right, title, and interest in and to cluding any and all patents granted on any  |  |  |  |
| prosecution<br>additional d<br>further cons<br>communica<br>ASSIGNOR<br>be required<br>encompass   | SSIGNOR hereby agrees to execute any documents that legally may be and maintenance of said application or any other patent applications documents that may be required to affirm the rights of ASSIGNEE in a disideration. ASSIGNOR also agrees, without further consideration and cate to ASSIGNEE at ASSIGNEE's request documents and information PR's possession or control, and to provide further assurances and testing of ASSIGNOR in respect of the prosecution, maintenance and defersed within the terms of this instrument. ASSIGNOR's obligations undecutors, administrators and other legal representatives. | is in the United States for said invention, including and to said invention and application, all without at ASSIGNEE's expense, to identify and a concerning the invention that are within mony on behalf of ASSIGNEE that lawfully may use of any patent application or patent |  |  |  |
| ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all patents 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 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. |   |   |  |  |  |
|  | SSIGNOR authorizes Practitioners associated with the Customer Number and Trademark and Trademark  |   |  |  |  |
| LEGAL N  | NAME OF ASSIGNOR  |   |  |  |  |
| Assignor:  | : Lexin CHEN Date   | e:  |  |  |  |
| Signature:   | e: /Lexin CHEN/   |   |  |  |  |

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| Attorney<br>Docket<br>Number   | D-BAXW-05001-UUS  |  |  |  |  |
|--|---|--|--|--|--|
| Title of<br>Invention  | COLLABORATIVE EROSION-CONTROL METHOD OF RELEASING-SPLITTING -SUPPORTING BASED ON COAL MASS PRESSURE RELIEF AND ROOF PRE-SPLITTING   |  |  |  |  |
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| WHEREAS  | SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY   |  |  |  |  |
| having a po  | stal address of No. 579, Qianwangang Road, Huangdao District, Qingdao, Shandong 266590, China   |  |  |  |  |
| (referred to   | as ASSIGNEE below) desires to acquire the entire right, title, and interest in and to the same in the United States;  |  |  |  |  |
| ASSIGNOR said invent division, cor   | N, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, t, by these presents does sell, assign and transfer unto ASSIGNEE, the entire right, title, and interest in and to ion and application throughout the United States of America, including any and all patents granted on any ntinuation, continuation-in-part, reexamination, and reissue of said application, whether granted in an initial or all examination thereof.   |  |  |  |  |
| prosecution<br>additional d<br>further cons<br>communica<br>ASSIGNOR<br>be required<br>encompass   | SIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, and maintenance of said application or any other patent applications in the United States for said invention, including ocuments that may be required to affirm the rights of ASSIGNEE in and to said invention and application, all without sideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and te to ASSIGNEE at ASSIGNEE's request documents and information concerning the invention that are within it's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent ed within the terms of this instrument. ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's stors, administrators and other legal representatives. |  |  |  |  |
| ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all patents 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 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. |   |  |  |  |  |
|  | SIGNOR authorizes Practitioners associated with the Customer Number 186,261 to insert or complete any information ment needed to effect its recordal in the U.S. Patent and Trademark Office and to record the same.  |  |  |  |  |
| LEGAL NA   | AME OF ASSIGNOR   |  |  |  |  |
| Assignor:  | Yan TAN Date:   |  |  |  |  |
| Signature:   | /Yan TAN/   |  |  |  |  |

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| Docket<br>Number   | D-BAXW-05001-UUS   |  |  |  |  |
|--|--|--|--|--|--|
| Title of<br>Invention  | COLLABORATIVE EROSION-CONTROL METHOD OF RELEASING-SPLITTING -SUPPORTING BASED ON COAL MASS PRESSURE RELIEF AND ROOF PRE-SPLITTING  |  |  |  |  |
|  | , I believe that I am the original inventor or an original joint inventor (referred to as ASSIGNOR below) of a claimed the application identified by the title above.  |  |  |  |  |
| WHEREAS  | SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY  |  |  |  |  |
| having a po  | stal address of No. 579, Qianwangang Road, Huangdao District, Qingdao, Shandong 266590, China  |  |  |  |  |
| (referred to   | as ASSIGNEE below) desires to acquire the entire right, title, and interest in and to the same in the United States;   |  |  |  |  |
| ASSIGNOR said invent division, cor   | W, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, t, by these presents does sell, assign and transfer unto ASSIGNEE, the entire right, title, and interest in and to cion and application throughout the United States of America, including any and all patents granted on any ntinuation, continuation-in-part, reexamination, and reissue of said application, whether granted in an initial or all examination thereof.   |  |  |  |  |
| prosecution<br>additional d<br>further cons<br>communica<br>ASSIGNOR<br>be required<br>encompass   | SIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, and maintenance of said application or any other patent applications in the United States for said invention, including ocuments that may be required to affirm the rights of ASSIGNEE in and to said invention and application, all without sideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and te to ASSIGNEE at ASSIGNEE's request documents and information concerning the invention that are within it's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent ed within the terms of this instrument. ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's attors, administrators and other legal representatives. |  |  |  |  |
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|  | SIGNOR authorizes Practitioners associated with the Customer Number 186,261 to insert or complete any information ment needed to effect its recordal in the U.S. Patent and Trademark Office and to record the same.   |  |  |  |  |
| LEGAL NA   | AME OF ASSIGNOR  |  |  |  |  |
| Assignor:  | Yunliang TAN Date: 03/03/2023  |  |  |  |  |
| Signature:   | /Yunliang TAN/   |  |  |  |  |

| Attorney<br>Docket<br>Number  | D-BAXW-05001-UUS   |  |   |   |
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| invention in  | the application ic   | lentified by the title above. SHANDONG UNIVERSITY  | original joint inventor (referred to a  |   |
| ASSIGNOF said invent division, cor supplement  ASS prosecution additional di further cons communica ASSIGNOF be required encompass heirs, execu | W, THEREFORE R, by these presection and applicate intinuation, continuation to the second and maintenance occuments that maideration. ASSIGITY possession or of ASSIGNOR in ed within the terrottors, administrate SIGNOR hereby as the second and the | , for good and valuable consi-<br>ents does sell, assign and to<br>tion throughout the United<br>uation-in-part, reexamination<br>ereof.  Agrees to execute any docume<br>e of said application or any of<br>ay be required to affirm the right<br>NOR also agrees, without furthed<br>at ASSIGNEE's request docu-<br>control, and to provide furthed<br>to respect of the prosecution, and<br>and other legal represent<br>authorizes and requests the Couttonizes. | deration, the receipt and adequace ransfer unto ASSIGNEE, the entertaint of States of America, including any and reissue of said application, we enter the tender of the tender of the tender that legally may be required the patent applications in the Unity of ASSIGNEE in and to said their consideration and at ASSIGNE in and the State of the tender of | thether granted in an initial or n connection with the filing, led States for said invention, including invention and application, all without IEE's expense, to identify and g the invention that are within shalf of ASSIGNEE that lawfully may |
| which such<br>and sale no<br>ASS  | patent may be gi<br>it been made.<br>SIGNOR authoriz   | ranted, as fully and entirely as<br>es Practitioners associated w  | the same would have been held   | essors, to the full end of the term for<br>by ASSIGNOR had this assignment<br>to insert or complete any information<br>to record the same.  |
|   | AME OF ASSIGN  |  |   |   |
|   | Tongbin ZHA  |  | Date: 03/03/  | 2023  |

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