PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6739356

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| FENGYI XIE | 09/26/2020 |
| MARGARET TRENCH | 09/29/2020 |
| MAHMOUD RAYA | 09/30/2020 |

RECEIVING PARTY DATA

| Name: | MORGAN STANLEY SERVICES GROUP INC. |
|-----------------|------------------------------------|
| Street Address: | 1585 BROADWAY |
| City: | NEW YORK |
| State/Country: | NEW YORK |
| Postal Code: | 10036 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 17335126 |

CORRESPONDENCE DATA

Fax Number: (646)878-0801

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: 646-878-0800

Email: USPTO@PearlCohen.com

Correspondent Name: PEARL COHEN ZEDEK LATZER BARATZ LLP

Address Line 1: 7 TIMES SQUARE
Address Line 2: 19TH FLOOR

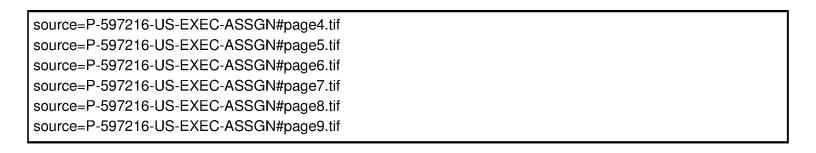
Address Line 4: NEW YORK, NEW YORK 10036

| ATTORNEY DOCKET NUMBER: | P-597216-US1 |
|-------------------------|--------------|
| NAME OF SUBMITTER: | AMANDA LIU |
| SIGNATURE: | /AL/ |
| DATE SIGNED: | 06/01/2021 |

Total Attachments: 9

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PATENT 506692538 REEL: 056406 FRAME: 0054



PATENT REEL: 056406 FRAME: 0055

ASSIGNMENT

In consideration of One Dollar (\$1.00), and other good and valuable consideration, the Receipt of which is hereby acknowledged, We the undersigned, Fengyi XIE residing at 27-03 42nd Road, Apt. 18C Long Island City, NY 11101, USA; Margaret S. TRENCH residing at 2060 Cook Road Charlton, NY 12019, USA and Mahmoud E. RAYA residing at 435 W. 31st Street, #25G New York, NY 10001, USA hereinafter, the "Assignor"

Hereby sell, assign and transfer to Morgan Stanley Services Group Inc., a U.S. company located at 1585 Broadway, New York, NY 10036, USA its successors, assigns and legal representatives (hereinafter, the "Assignee"), the entire right, title and interest for all countries, in and to any and all inventions which are disclosed and claimed, and as possessed by the undersigned, any and all inventions which are disclosed but not claimed in United States Patent Application No. (17/061,145) filed on (October 1, 2020) and being entitled:

SYSTEM AND METHOD FOR CARBON EMISSIONS EXPOSURE DETERMINATION

and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other applications for U.S. Letters Patent or other related property rights in any and all foreign countries which have been or shall be filed on any of said inventions disclosed in said application; and in and to all original and reissued patents or related foreign documents which have been or shall be issued on said inventions; and including the Assignor's right in and to all revenue, income, royalties, damages and payments now or hereafter due or payable with respect to any Letters Patent which may be granted, and in and to all causes of action (either in law or in equity), and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment. I hereby authorize and request the attorney of record of the firm Pearl Cohen Zedek Latzer Baratz LLP, 1500 Broadway, 12th Floor, New York, New York 10036, to insert in the parentheses above, the filing date and US Serial No. of said application when known;

Authorize and request the Commissioner of Patents of the United States to issue to said Assignee, the corporation above named, its successors, assigns and legal representatives, in accordance with this assignment, any and all United States Letters Patent on said inventions or any of them disclosed in said application;

Agree that said Assignee may apply for and receive foreign Letters Patent or rights of any other kind for said inventions, or any of them; and may claim, in applications for said foreign Letters Patent or other rights, the priority of the aforesaid United States patent application under the provisions of the International Convention of 1883 and later modifications thereof, under the Patent Cooperation Treaty,

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under the European Patent Convention or under any other available international agreement; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this assignment, the under-signed or the undersigned's executors or administrators will, for the United States and all foreign countries, execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications or other documents on any and all said inventions; execute all rightful oaths, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns and representatives, all facts known and documents available to the undersigned relating to said inventions and the history thereof; testify in all legal proceedings; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said inventions and for vesting title to said inventions and all applications for patents or related foreign rights and all patents on said inventions, in said Assignee, its successors, assigns and legal representatives; and

COVENANT with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

FULL NAME OF WITNESS:

FULL NAME OF INVENTOR:

DATE:

(day / month / year)

| Fengyi XIE | Na ZHONG |
|------------------------|----------------------------|
| SIGNATURE OF INVENTOR: | SIGNATURE OF WITNESS: |
| Fengyi Xie | Na Zhong |
| 26 / 09 / 2020 | ADDRESS OF WITNESS: |
| DATE: | 27-03 42nd Rd Apt 18C |
| (day / month / year) | Long Island City, NY 11101 |
| | |
| FULL NAME OF INVENTOR: | FULL NAME OF WITNESS: |
| Margaret S. TRENCH | |
| SIGNATURE OF INVENTOR: | SIGNATURE OF WITNESS: |
| | |
| | ADDRESS OF WITNESS: |

| FULL NAME OF INVENTOR: | FULL NAME OF WITNESS: |
|------------------------|-----------------------|
| Mahmoud E. RAYA | |
| SIGNATURE OF INVENTOR: | SIGNATURE OF WITNESS: |
| | |
| | ADDRESS OF WITNESS: |
| DATE: | |
| (day / month / year) | |

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and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other applications for U.S. Letters Patent or other related property rights in any and all foreign countries which have been or shall be filed on any of said inventions disclosed in said application; and in and to all original and reissued patents or related foreign documents which have been or shall be issued on said inventions; and including the Assignor's right in and to all revenue, income, royalties, damages and payments now or hereafter due or payable with respect to any Letters Patent which may be granted, and in and to all causes of action (either in law or in equity), and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment. I hereby authorize and request the attorney of record of the firm Pearl Cohen Zedek Latzer Baratz LLP, 1500 Broadway, 12th Floor, New York, New York 10036, to insert in the parentheses above, the filing date and US Serial No. of said application when known;

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Agree that said Assignee may apply for and receive foreign Letters Patent or rights of any other kind for said inventions, or any of them; and may claim, in applications for said foreign Letters Patent or other rights, the priority of the aforesaid United States patent application under the provisions of the International Convention of 1883 and later modifications thereof, under the Patent Cooperation Treaty.

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under the European Patent Convention or under any other available international agreement; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this assignment, the under-signed or the undersigned's executors or administrators will, for the United States and all foreign countries, execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications or other documents on any and all said inventions; execute all rightful oaths, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns and representatives, all facts known and documents available to the undersigned relating to said inventions and the history thereof; testify in all legal proceedings; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said inventions and for vesting title to said inventions and all applications for patents or related foreign rights and all patents on said inventions, in said Assignee, its successors, assigns and legal representatives; and

COVENANT with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

FULL NAME OF WITNESS

FULL NAME OF INVENTOR:

| Fengyi XIE | |
|------------------------|--|
| SIGNATURE OF INVENTOR: | SIGNATURE OF WITNESS: |
| | |
| | ADDRESS OF WITNESS: |
| DATF: | |
| (day / month / year) | |
| | |
| FULL NAME OF INVENTOR: | FULL NAME OF WITNESS. |
| Margaret S. TRENCH | VICTOR ROMANOV |
| SIGNATURE OF INVENTOR: | SIGNATURE OF WITNESS: |
| Hazard & Deer | 1/1/////////////////////////////////// |
| 30/20/2020 | ADDRESS OF WITNESS: |
| DATE: 09/09/2020 | 2060 COOK ROAD |
| (day / month / year) | CHARLTON, NY 12019 |

| FULL NAME OF INVENTOR: | FULL NAME OF WITNESS: |
|------------------------|-----------------------|
| Mahmoud E, RAYA | |
| SIGNATURE OF INVENTOR: | SIGNATURE OF WITNESS: |
| DATE: | ADDRESS OF WITNESS: |
| (day / month / year) | |

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under the European Patent Convention or under any other available international agreement; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this assignment, the under-signed or the undersigned's executors or administrators will, for the United States and all foreign countries, execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications or other documents on any and all said inventions; execute all rightful oaths, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns and representatives, all facts known and documents available to the undersigned relating to said inventions and the history thereof; testify in all legal proceedings; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said inventions and for vesting title to said inventions and all applications for patents or related foreign rights and all patents on said inventions, in said Assignee, its successors, assigns and legal representatives; and

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FULL NAME OF WITNESS:

FULL NAME OF INVENTOR:

| Fengyi XIE | |
|------------------------|-----------------------|
| SIGNATURE OF INVENTOR: | SIGNATURE OF WITNESS: |
| | |
| | ADDRESS OF WITNESS: |
| DATE: | |
| (day / month / year) | |
| | |
| FULL NAME OF INVENTOR: | FULL NAME OF WITNESS: |
| Margaret S. TRENCH | |
| SIGNATURE OF INVENTOR: | SIGNATURE OF WITNESS: |
| | |
| | ADDRESS OF WITNESS: |
| DATE: | |
| (day / month / year) | |

| FULL NAME OF INVENTOR: | FULL NAME OF WITNESS: |
|------------------------|---|
| Mahmoud E. RAYA | Dalia-Dea K |
| SIGNATURE OF INVENTOR: | SIGNATURE OF WITNESS: |
| | Oal XI |
| | ADDRESS OF WITNESS: |
| DATE: 30/69/2020 | 935 0 32 ²³ |
| (day / month / year) | Med Arky Wen Aske 1000 Med Arky Wen Aske 1000 |