505992092 03/30/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:NEW ASSIGNMENTNATURE OF CONVEYANCE:ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KLAUS STEPHAN LACKNER	10/15/2018

RECEIVING PARTY DATA

Name:	ARIZONA BOARD OF REGENTS ON BEHALF OF ARIZONA STATE UNIVERSITY
Street Address:	SKYSONG, 1475 N. SCOTTSDALE ROAD
Internal Address:	SUITE 200
City:	SCOTTSDALE
State/Country:	ARIZONA
Postal Code:	85257

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16642012

CORRESPONDENCE DATA

Fax Number: (480)830-2717

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: 480-830-2700

Email: aho@boothudall.com

Correspondent Name: RODNEY J. FULLER, ESQ,. BOOTH UDALL FULLER PLC

Address Line 1: 1255 W. RIO SALADO PARKWAY

Address Line 2: SUITE 215

Address Line 4: TEMPE, ARIZONA 85281

ATTORNEY DOCKET NUMBER:	11157.030US
NAME OF SUBMITTER:	RODNEY J. FULLER
SIGNATURE:	/Rodney J. Fuller/
DATE SIGNED:	03/30/2020

Total Attachments: 2

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PATENT 505992092 REEL: 052265 FRAME: 0942

ASSIGNMENT

This Assignment is made and executed by **Klaus Stephan Lackner** (hereinafter "Assignor"), to and in favor of ARIZONA BOARD OF REGENTS ON BEHALF OF ARIZONA STATE UNIVERSITY, having a business address of SkySong, 1475 N. Scottsdale Road, Suite 200, Scottsdale, Arizona 85257 (hereinafter "Assignee").

Whereas the Assignor desires to assign his entire right, title and interest in and to the invention(s) described in the Patent Cooperation Treaty (PCT) Application No. PCT/US2018/048550 filed on August 29, 2018 and titled "CARBON DIOXIDE UPGRADE AND ENERGY STORAGE SYSTEM AND METHOD" (hereinafter the "Patent Application"); and

Whereas Assignee has provided such valuable consideration to the Assignor;

Accordingly, Assignor warrants, covenants and agrees as follows:

- 1. Assignor hereby sells, assigns and conveys to Assignee such Assignor's entire right, title and interest in and to the invention(s) described in the Patent Application, including the Patent Application itself and all substitute, non-provisional, continuation, continuation-in-part and divisional applications based in whole or in part on the Patent Application, and including all patents resulting therefrom and all reissues and extensions thereof, and including any and all rights of priority resulting from the filing of any such applications within the United States.
- 2. Assignor hereby sells, assigns and conveys to Assignee such Assignor's entire right, title and interest in all counterparts to the Patent Application that have been or may be filed outside the United States or under the Patent Cooperation Treaty, whether pursued as a patent, an inventor's certificate, a utility model or the like, including all rights of priority based on the Patent Application, further including all continuation, continuation-in-part and divisional applications based in whole or in part on the non-U.S. counterparts, and still further including all patents, inventor's certificates, utility models, reissues and extensions resulting from any of the non-U.S. counterparts.
- 3. Assignor hereby grants to Assignee the sole and exclusive right to prosecute the Patent Application and all related applications as described in Paragraphs 1 and 2 above, as well as any opposition proceedings, reissue applications, reexaminations, and nullity or invalidity proceedings. Assignor authorizes all governmental bodies having the power to issue patents, inventor's certificates or utility models to issue a patent, inventor's certificate or utility model based on the Patent Application or any related applications as described in Paragraphs 1 and 2 above in the name of Assignee.
- 4. Assignor agrees upon request and without further consideration, but at Assignee's expense: (a) to assist Assignee in prosecuting the Patent Application and all related applications as described in Paragraphs 1 and 2 above, as well as opposition proceedings, reissue applications, reexaminations, and nullity or invalidity proceedings; (b) to provide Assignee with information concerning the Patent Application and the related applications described in

PATENT REEL: 052265 FRAME: 0943 ASSIGNMENT Docket No. 11157.030PCT

Title: "Carbon Dioxide Upgrade and Energy Storage System and Method" International Application No. PCT/US2018/048550

Paragraphs 1 and 2 above to enable Assignee to obtain, secure and protect all of the rights, title and interest sold, assigned, conveyed and granted under this Assignment (the "Assigned Assets"); (c) to sign papers, take oaths and testify in legal proceedings to enable Assignee to obtain, secure and protect the Assigned Assets; and (d) to perform all acts reasonably necessary to enable Assignee to obtain, secure and protect the Assigned Assets, including assistance in any proceedings pertaining to the Patent Application and the related applications described in Paragraphs 1 and 2 above or to their enforcement.

- 5. Assignor warrants and covenants that such Assignor has the full right to sell, assign and convey the Assigned Assets, that all of the Assigned Assets are free and clear of all mortgages, liens, security interests, charges, claims, royalty obligations and encumbrances of any nature whatsoever and that the Assignor has not executed and will not execute any agreement in conflict with this Assignment.
- 6. Assignee may assign the Assigned Assets in whole or in part. All references herein to Assignee include any successors or assigns of Assignee.
- 7. Assignor acknowledges that Assignee has paid valuable consideration for the Assigned Assets.

October 15, 2018

Date

RECORDED: 03/30/2020

Klaus Stephan LACKNER

Wans S. Ladr

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