503423810 08/05/2015

PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| JOEL F. CAMPBELL | 07/30/2015 |
| BING LIN | 07/27/2015 |
| AMIN R. NEHRIR | 08/03/2015 |

RECEIVING PARTY DATA

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| State/Country: | DISTRICT OF COLUMBIA | | | |
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PROPERTY NUMBERS Total: 1

| Property Type | Number | |
|---------------------|----------|--|
| Application Number: | 14817843 | |

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| ATTORNEY DOCKET NUMBER: | LAR 18539-1 | | |
|-------------------------|-------------------|--|--|
| NAME OF SUBMITTER: | ELAINE C. MCMAHON | | |
| SIGNATURE: | /elaine mcmahon/ | | |
| DATE SIGNED: | 08/05/2015 | | |

Total Attachments: 1 source=20P2662#page1.tif

> **PATENT** REEL: 036256 FRAME: 0839 503423810



Assignment to the Government (by Government Employee)

| Title of Invention: | BINARY PHASE SHIFT KEYING (BPSK) ON ORTHOGONAL CARRIERS FOR MULTI-CHANNEL IM-CW CO2 ABSORPTION OR LIDAR/RADAR/SONAR MAPPING APPLICATIONS | | | | | | |
|---|--|--|--|---|--|--|--|
| Inventor(s): | JOEL F. CAMPBELL, BING LIN, AMIN R. NEHRIR | | | | | | |
| NASA Case No.: | LAR 18539-1 | Application No.*: | 14/817,843 | Filing Date*: | 8/4/2015 | | |
| WHEREAS, the par Government (herea Administration; | ties to this Assignme fter Government), as | nt and Agreement are represented by the A | the undersigned inv dministrator of the N | entor(s) and the U ational Aeronautics | nited States s and Space | | |
| WHEREAS, the mai | king of this Assignme | nt and Agreement is | in accordance with 3 | 7 CFR Part 501; a | nd | | |
| | lersigned inventor(s) e above-entitled inver | has (have) executed, ition. | on the date(s) indica | ated below, an app | lication for United | | |
| Assign to the America, its territoria | Government my (oules and possessions, | employment by the G r) full and exclusive ri and my (our) entire ri application(s) and any | ght in and to said inv ght, title and interest | ention within the U in and to said appl | Inited States of ication, and any | | |
| accordance with 37 amended. If the Gov country, in accordar nonexclusive, irrevo | CFR 501.9(d), include vernment chooses not not with 37 CFR 501, cable, royalty-free lice | my (our) full and excling rights of priority ut to file an application 9(d), and such rights ense in the invention will appear, where pr | nder the Internationa in any foreign count will be subject to the with power to grant I | il Convention of Pa ry, I (we) may requineservation to the reservation to the icenses for all gove | rris (1883), as lest rights in that Government of a ernmental | | |
| information to, and (| expense of the Gove c) to cooperate in an by this Assignment a | ernment, (a) to execut y manner with the Go nd Agreement. | e any document for, vernment in order to | (b) to deliver any r allow the Governn | equested nent to protect any | | |
| *4. Authorize an | d request the attorne | ys of record in the ap | plication to insert the | application number | er and filing date | | |
| above when require | O. | | 7/20/100 | 15 7/2 | A 19 - 18 | | |
| (Signature of Inventor |) distribution of the second o | / | <u> </u> | d) (Date Applic | vation Executed) | | |
| JOEL F. CAMPBE | LE | | Lane, Poquoson, VA | | | | |
| (inventor's Typed Nar | ne) | | ess - Including Country, | | | | |
| Carreto amount | - A | 7/ | 27/2011 | 77/5 | 1/20/1 | | |
| (Signature of Inventor | | (Da | te Assignment Execute | d) (Date Applic | ration Executed) | | |
| BING LIN | *** | 209 Richter | Lane, Yorktown VA | 23693 | | | |
| (Inventor's Typed Nan | 1e) | | ess - Including Country, | | | | |
| · C | · | , esc | 0 - 62 - 7 - 2 | a and San | S Z 201 | | |
| (Signature of Inventor) |) | <u>€/</u> <i>6</i> Da | § - 03 - 2回/5 te Assignment Execute | d) (Date Applic | ਤੁ - ਟਿਲ ਟਰ ation Executed) | | |
| AMIN R. NEHRIR | | | Circle, Yorktown, VA | | and it and details | | |
| (Inventor's Typed Nan | 76) | | ess - Including Country) | ********* | | | |

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RECORDED: 08/05/2015

PATENT REEL: 036256 FRAME: 0840