PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2805795

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------|----------------|
| KIOR, INC. | 04/03/2014 |

RECEIVING PARTY DATA

| Name: | KFT TRUST, C/O KHOSLA VENTURES |
|-----------------|--------------------------------|
| Street Address: | 2128 SAND HILL ROAD |
| City: | MENLO PARK |
| State/Country: | CALIFORNIA |
| Postal Code: | 94025 |

PROPERTY NUMBERS Total: 30

| Property Type | Number |
|----------------|---------|
| Patent Number: | 8207385 |
| Patent Number: | 8524960 |
| Patent Number: | 8022260 |
| Patent Number: | 8460541 |
| Patent Number: | 7901568 |
| Patent Number: | 8323458 |
| Patent Number: | 8501043 |
| Patent Number: | 8465557 |
| Patent Number: | 8288599 |
| Patent Number: | 8168840 |
| Patent Number: | 8003835 |
| Patent Number: | 8344194 |
| Patent Number: | 8137632 |
| Patent Number: | 8500910 |
| Patent Number: | 8524959 |
| Patent Number: | 8465627 |
| Patent Number: | 8552233 |
| Patent Number: | 8558043 |
| Patent Number: | 8288600 |
| Patent Number: | 8523496 |
| Patent Number: | 8557193 |
| 502759199 | F |

PATENT

REEL: 032630 FRAME: 0441

| Property Type | Number |
|----------------|---------|
| Patent Number: | 8057641 |
| Patent Number: | 8083900 |
| Patent Number: | 8323456 |
| Patent Number: | 8063258 |
| Patent Number: | 8425766 |
| Patent Number: | 8236173 |
| Patent Number: | 8377152 |
| Patent Number: | 8506658 |
| Patent Number: | 8454712 |

CORRESPONDENCE DATA

Fax Number: (650)938-5200

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US Mail.

Phone: 650-335-7133

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Correspondent Name: JOHN T. MCNELIS

Address Line 1: FENWICK & WEST LLP

Address Line 2: 801 CALIFORNIA STREET

Address Line 4: MOUNTAIN VIEW, CALIFORNIA 94041

| ATTORNEY DOCKET NUMBER: | 27617-00029 |
|-------------------------|------------------------------|
| NAME OF SUBMITTER: | JOHN T. MCNELIS, REG. 37,186 |
| SIGNATURE: | /John T. McNelis/ |
| DATE SIGNED: | 04/08/2014 |

Total Attachments: 7

source=KiOR_Patent_Security_Agreement#page1.tif source=KiOR_Patent_Security_Agreement#page2.tif source=KiOR_Patent_Security_Agreement#page3.tif source=KiOR_Patent_Security_Agreement#page4.tif source=KiOR_Patent_Security_Agreement#page5.tif source=KiOR_Patent_Security_Agreement#page6.tif source=KiOR_Patent_Security_Agreement#page7.tif

PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this "Patent Security Agreement") is made this 3rd day of April, 2014, by and between KiOR, INC., a Delaware corporation ("Grantor"), and KFT TRUST, VINOD KHOSLA, TRUSTEE, in its capacity as agent for the Purchasers (as defined below) (in such capacity, together with its successors and assigns in such capacity, "Agent").

WITNESSETH:

WHEREAS, pursuant to that certain Senior Secured Promissory Note and Warrant Purchase Agreement dated March 31, 2014 (as amended, restated, supplemented or otherwise modified from time to time, the "Agreement") among Grantor, each Subsidiary of Grantor that is a party thereto or becomes a party thereto, the purchasers (each a "Purchaser" and collectively, the "Purchasers") set forth on the Schedule of Purchasers attached thereto as Exhibit A and Agent, the Purchasers are willing to make certain financial accommodations available to the Grantor pursuant to the terms and conditions thereof; and

WHEREAS, pursuant to the Agreement, Grantor is required to execute and deliver to Agent, for the benefit of the Purchasers, this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor hereby agrees as follows:

- 1. <u>DEFINED TERMS</u>. All initially capitalized terms used but not otherwise defined herein have the meanings given to them in the Agreement.
- 2. GRANT OF SECURITY INTEREST IN PATENT COLLATERAL. Grantor hereby unconditionally grants, assigns, and pledges to Agent, for the benefit of the Purchasers, to secure the Secured Obligations, a continuing security interest (referred to in this Patent Security Agreement as the "Security Interest") in all of Grantor's right, title and interest in and to the following, whether now owned or hereafter acquired or arising (collectively, the "Patent Collateral"):
- (a) all of its Patents and Patent Licenses to which it is a party including those referred to on Schedule I;
- (b) all divisionals, continuations, continuations-in-part, reissues, reexaminations, or extensions of the foregoing; and
- (c) all products and proceeds of the foregoing, including any claim by Grantor against third parties for past, present or future infringement of any Patent or any Patent exclusively licensed under any License, including the right to receive damages, or right to receive license fees, royalties, and other compensation under any Patent License.
- 3. <u>SECURITY FOR SECURED OBLIGATIONS</u>. This Patent Security Agreement and the Security Interest created hereby secures the payment and performance of the Secured Obligations, whether now existing or arising hereafter. Without limiting the generality of the foregoing, this Patent Security Agreement secures the payment of all amounts which constitute part of the Secured Obligations and would be owed by Grantor to Agent, the Purchasers or any of them whether or not they are unenforceable or not allowable due to the existence of an insolvency proceeding involving Grantor.

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- 4. <u>AGREEMENT</u>. The Security Interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interests granted to Agent, for the benefit of the Purchasers, pursuant to the Agreement. Each of Grantor and Agent hereby acknowledges and affirms that the rights and remedies of Agent with respect to the Security Interest in the Patent Collateral made and granted hereby are more fully set forth in the Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. To the extent there is any inconsistency between this Patent Security Agreement and the Agreement, the Agreement shall control.
- 5. <u>AUTHORIZATION TO SUPPLEMENT</u>. If Grantor shall obtain rights to any new patent application or issued Patent or become entitled to the benefit of any patent application or Patent for any divisional, continuation, continuation-in-part, reissue, or reexamination of any existing Patent or patent application, the provisions of this Patent Security Agreement shall automatically apply thereto. Grantor hereby authorizes Agent unilaterally to modify this Patent Security Agreement by amending <u>Schedule I</u> to include any such new patent rights of Grantor. Notwithstanding the foregoing, no failure to so modify this Patent Security Agreement or amend <u>Schedule I</u> shall in any way affect, invalidate or detract from Agent's continuing security interest in all Collateral, whether or not listed on <u>Schedule I</u>.
- 6. <u>COUNTERPARTS</u>. This Patent Security Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, shall be deemed to be an original, and all of which, when taken together, shall constitute but one and the same Patent Security Agreement. Delivery of an executed counterpart of this Patent Security Agreement by telefacsimile or other electronic method of transmission shall be equally as effective as delivery of an original executed counterpart of this Patent Security Agreement. Any party delivering an executed counterpart of this Patent Security Agreement by telefacsimile or other electronic method of transmission also shall deliver an original executed counterpart of this Patent Security Agreement but the failure to deliver an original executed counterpart shall not affect the validity, enforceability, and binding effect of this Patent Security Agreement.
- 7. CONSTRUCTION. This Patent Security Agreement is a Transaction Document. Unless the context of this Patent Security Agreement clearly requires otherwise, references to the plural include the singular, references to the singular include the plural, the terms "includes" and "including" are not limiting, and the term "or" has, except where otherwise indicated, the inclusive meaning represented by the phrase "and/or". The words "hereof", "herein", "hereby", "hereunder", and similar terms in this Patent Security Agreement refer to this Patent Security Agreement as a whole and not to any particular provision of this Patent Security Agreement. Section, subsection, clause, schedule, and exhibit references herein are to this Patent Security Agreement unless otherwise specified. Any reference in this Patent Security Agreement to any agreement, instrument, or document shall include all alterations, amendments, changes, extensions, modifications, renewals, replacements, substitutions, joinders, and supplements, thereto and thereof, as applicable (subject to any restrictions on such alterations, amendments, changes, extensions, modifications, renewals, replacements, substitutions, joinders, and supplements set forth herein). The words "asset" and "property" shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts, and contract rights. Any reference herein to the satisfaction, repayment, or payment in full of the Secured Obligations shall mean the repayment in full in Cash of all Secured Obligations other than unasserted contingent indemnification Secured Obligations and other obligations that expressly survive the repayment of the Secured Obligations. Any reference herein to any Person shall be construed to include such Person's successors and assigns.
- 8. <u>CHOICE OF LAW.</u> THE VALIDITY OF THIS PATENT SECURITY AGREEMENT, THE CONSTRUCTION, INTERPRETATION, AND ENFORCEMENT

HEREOF, AND THE RIGHTS OF THE PARTIES HERETO WITH RESPECT TO ALL MATTERS ARISING HEREUNDER OR RELATED HERETO SHALL BE DETERMINED UNDER, GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, EXCLUDING CONFLICT OF LAWS PRINCIPLES THAT WOULD CAUSE THE APPLICATION OF LAWS OF ANY OTHER JURISDICTION.

- 9. CONSENT TO JURISDICTION AND VENUE. ALL JUDICIAL PROCEEDINGS ARISING IN OR UNDER OR RELATED TO THIS PATENT SECURITY AGREEMENT MAY BE BROUGHT IN THE FEDERAL COURT OF THE SOUTHERN DISTRICT OF NEW YORK AND EACH PARTY HERETO GENERALLY AND UNCONDITIONALLY: (A) CONSENTS TO EXCLUSIVE PERSONAL JURISDICTION IN NEW YORK NEW YORK; (B) WAIVES ANY OBJECTION AS TO JURISDICTION OR VENUE IN THE SOUTHERN DISTRICT OF NEW YORK; (C) AGREES NOT TO ASSERT ANY DEFENSE BASED ON LACK OF JURISDICTION OR VENUE IN THE AFORESAID COURTS; AND (D) IRREVOCABLY AGREES TO BE BOUND BY ANY JUDGMENT RENDERED THEREBY IN CONNECTION WITH THIS PATENT SECURITY AGREEMENT. NOTHING HEREIN SHALL LIMIT THE RIGHT OF EITHER PARTY TO BRING PROCEEDINGS IN THE COURTS OF ANY OTHER JURISDICTION.
- APPLICABLE LAW, AGENT AND GRANTOR HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS PATENT SECURITY AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREIN, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW OR STATUTORY CLAIMS. AGENT AND GRANTOR REPRESENT THAT EACH HAS REVIEWED THIS WAIVER AND EACH KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL. IN THE EVENT OF LITIGATION, A COPY OF THIS PATENT SECURITY AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.

[SIGNATURE PAGE FOLLOWS]

GRANTOR:

KIOR, INC.,
a Delaware corporation

By:

Name Christopher A. Artzer

Title:
President

ACCEPTED AND ACKNOWLEDGED BY:

KET TRUST, VINOR KHOSI A. TRUSTEE

executed and delivered as of the day and year first above written.

IN WITNESS WHEREOF, the parties hereto have caused this Patent Security Agreement to be

KFT TRUST, VINOD KHOSLA, TRUSTEE
as Agent
By:
Name: Vinod Khosla
Title: Trustee

IN WITNESS WHEREOF, the parties hereto have caused this Patent Security Agreement to be executed and delivered as of the day and year first above written.

| GRANTOR: | KIOR, INC., a Delaware corporation | |
|----------|--------------------------------------------------------|--|
| | By: Name: Christopher A. Artzer Title: President | |
| AGENT: | ACCEPTED AND ACKNOWLEDGED BY | |
| | KFT TRUST, VINOD KHOSLA, TRUSTEE | |
| | as Agent | |
| | By: VMMd KUML | |
| | Name: Vinod Khosla | |
| | Title: Trustee | |

SCHEDULE I to PATENT SECURITY AGREEMENT

Patents

| Name of Grantor | Patent Description | Patent Number | Issue Date |
|-----------------|-----------------------------------------------------------------------------------|---------------|------------|
| KiOR, INC. | FLUID CATALYTIC CRACKING OF OXYGENATED COMPOUNDS | 8,207,385 | 6/26/2012 |
| GOR, INC. | FLUID CATALYTIC CRACKING OF OXYGENATED COMPOUNDS | 8,524,960 | 9/3/2013 |
| CIOR, INC. | PROCESS FOR THE CONVERSION OF BIOMASS TO LIQUID FUELS AND SPECIALTY CHEMICALS | 8,022,260 | 9/20/2011 |
| KiOR, INC. | PROCESS FOR CONVERTING CARBON-BASED ENERGY CARRIER MATERIAL | 8,460,541 | 6/11/2013 |
| KiOR, INC. | IMPROVED PROCESS FOR CONVERTING CARBON- BASED ENERGY CARRIER MATERIAL | 7,901,568 | 3/8/2011 |
| KIOR, INC. | ELECTRO-MAGNETIC TREATMENT OF MODIFIED BIOMASS | 8,323,458 | 12/4/2012 |
| KiOR, INC. | PROCESSING OF BIOMASS-DERIVED OXYGENATES WITH PARTICLES COMPRISING A COKE DEPOSIT | 8,501,043 | 8/6/2013 |
| GOR, INC. | PROCESS FOR MAKING BIO-OILS AND FRESH WATER FROM AQUATIC BIOMASS | 8,465,557 | 6/18/2013 |
| GOR, INC. | CO-PROCESSING SOLID BIOMASS IN A CONVENTIONAL PETROLEUM REFINING PROCESS UNIT | 8,288,599 | 10/16/2012 |
| KiOR, INC. | BIOMASS PRETREATMENT PROCESS | 8,168,840 | 5/1/2012 |
| KiOR, INC. | BIOMASS CONVERSION PROCESS | 8,003,835 | 8/23/2011 |
| KIOR, INC. | PROCESS FOR THE CONVERSION OF SOLID PARTICULATED BIOMASS MATERIALS | 8,344,194 | 1/1/2013 |
| KiOR, INC. | BIOMASS CONVERSION PROCESS | 8,137,632 | 3/20/2012 |
| KiOR, INC. | MODIFICATION OF BIOMASS FOR EFFICIENT CONVERSION TO FUELS | 8,500,910 | 8/6/2013 |
| KiOR, INC. | BIOMASS CATALYTIC CONVERSION PROCESS AND APPARATUS FOR USE THEREIN | 8,524,959 | 9/3/2013 |
| GOR, INC. | COMMINUTION AND DENSIFICATION OF BIOMASS PARTICLES | 8,465,627 | 6/18/2013 |
| GOR, INC. | PRETREATMENT OF BIOMASS WITH CARBONACEOUS MATERIAL | 8,552,233 | 10/8/2013 |
| KiOR, INC. | MODULAR BIOMASS TREATMENT UNIT | 8,558,043 | 10/15/2013 |
| GOR, INC. | METHODS FOR CO-PROCESSING OF BIOMASS AND PETROLEUM FEED | 8,288,600 | 10/16/2012 |

| IMPROVED BIOMASS FEED SYSTEM/PROCESS | 8,523,496 | 9/3/2013 |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| METHOD AND APPARATUS FOR PYROLYSIS OF A BIOMASS | 8,557,193 | 10/15/2013 |
| METHOD AND APPARATUS FOR PYROLYSIS OF A BIOMASS | 8,057,641 | 11/15/2011 |
| REMOVAL OF WATER FROM BIO-OIL | 8,083,900 | 12/27/2011 |
| REMOVAL OF BOUND WATER FROM BIO-OIL | 8,323,456 | 12/4/2012 |
| CATALYTIC HYDROPYROLYSIS OF ORGANOPHILLIC BIOMASS | 8,063,258 | 11/22/2011 |
| BIOMASS PRETREATMENT FOR FAST PYROLYSIS TO LIQUIDS | 8,425,766 | 4/23/2013 |
| BIOMASS PRETREATMENT FOR FAST PYROLYSIS TO LIQUIDS | 8,236,173 | 8/7/2012 |
| PRODUCTION OF RENEWABLE BIO-DISTILLATE | 8,377,152 | 2/19/2013 |
| PRODUCTION OF RENEWABLE BIO-DISTILLATE | 8,506,658 | 8/13/2013 |
| PRODUCTION OF RENEWABLE BIO-DISTILLATE | 8,454,712 | 6/4/2013 |
| | METHOD AND APPARATUS FOR PYROLYSIS OF A BIOMASS METHOD AND APPARATUS FOR PYROLYSIS OF A BIOMASS REMOVAL OF WATER FROM BIO-OIL REMOVAL OF BOUND WATER FROM BIO-OIL CATALYTIC HYDROPYROLYSIS OF ORGANOPHILLIC BIOMASS BIOMASS PRETREATMENT FOR FAST PYROLYSIS TO LIQUIDS BIOMASS PRETREATMENT FOR FAST PYROLYSIS TO LIQUIDS PRODUCTION OF RENEWABLE BIO-DISTILLATE PRODUCTION OF RENEWABLE BIO-DISTILLATE | METHOD AND APPARATUS FOR PYROLYSIS OF A BIOMASS METHOD AND APPARATUS FOR PYROLYSIS OF A BIOMASS REMOVAL OF WATER FROM BIO-OIL REMOVAL OF BOUND WATER FROM BIO-OIL REMOVAL OF BOUND WATER FROM BIO-OIL CATALYTIC HYDROPYROLYSIS OF ORGANOPHILLIC BIOMASS BIOMASS PRETREATMENT FOR FAST PYROLYSIS TO LIQUIDS BIOMASS PRETREATMENT FOR FAST PYROLYSIS TO LIQUIDS PRODUCTION OF RENEWABLE BIO-DISTILLATE 8,377,152 PRODUCTION OF RENEWABLE BIO-DISTILLATE 8,506,658 |

PATENT REEL: 032630 FRAME: 0449

RECORDED: 04/08/2014