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NOTICE OF ALLOWANCE AND FEE(S) DUE

23342 7590 12/04/2018
KILPATRICK TOWNSEND & STOCKTON LLP
Mailstop: 22 - IP Docketing
1100 Peachtree Street
Suite 2800
Atlanta, GA 30309

EXAMINER	
RAGHU, GANAPATHIRAM	
ART UNIT	PAPER NUMBER

1652

DATE MAILED: 12/04/2018

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/787,448	10/18/2017	Brian Michael Green	098816-1065095	4152

TITLE OF INVENTION: Methods for Making L-Glufosinate

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$500	\$0.00	\$0.00	\$500	03/04/2019

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

Notice of Allowability	Application No. 15/787,448	Applicant(s) Green et al.	
	Examiner GANAPATHIRAMA RAGHU	Art Unit 1652	AIA Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/30/2018.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1-22. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some *c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892) 2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date <u>10/30/2018</u> . 3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____. 4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.	5. ☐ Examiner's Amendment/Comment 6. ☒ Examiner's Statement of Reasons for Allowance 7. ☐ Other _____.
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/GANAPATHIRAMA RAGHU/ Primary Examiner, Art Unit 1652	11/25/2018
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KILPATRICK TOWNSEND & STOCKTON LLP

By: /Debbie K. Cooke/
Debbie K. Cooke

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Brian Michael Green et al.

Application No.: 15/787,448

Filed: October 18, 2017

For: METHODS FOR MAKING L-
GLUFOSINATE

Customer No.: 23342

Confirmation No.: 4152

Examiner: Ganapathiram Raghu

Technology Center/Art Unit: 1652

**AMENDMENT AND RESPONSE
TO NON-FINAL OFFICE ACTION**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

In response to the Office Action mailed July 30, 2018, please enter the following amendments and consider the following remarks. This response is being timely filed within three months of the mailing date of the non-final Office Action, in this case on or before October 30, 2018.

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 3 of this paper.

Remarks begin on page 6 of this paper.

form of the term. *See* Office Action, page 3. Applicant has amended claim 1, which contains the first recitation of PPO, accordingly. Applicant respectfully requests withdrawal of the claim objection.

35 U.S.C. § 103

Claims 1-7 were rejected under 35 U.S.C. § 103 as obvious over U.S. Patent No. 6,335,186 to Bartsch et al. (“Bartsch”) in view of U.S. Patent No. 5,767,309 to Knorr et al. (“Knorr”), U.S. Patent No. 7,939,709 to Hawkes et al. (“Hawkes”), U.S. Patent No. 8,981,142 to Albizati et al. (“Albizati”), and U.S. Patent No. 8,716,184 to Angermann et al. (“Angermann”). This rejection is respectfully traversed.

The present claims are drawn to a composition comprising D-glufosinate, 2-oxo-4-(hydroxy(methyl)phosphinoyl)butyric acid (PPO), and L-glufosinate, wherein L-glufosinate is present in the composition in an amount at least 80% by weight based on the total amount of D-glufosinate, PPO, and L-glufosinate. While the references cited by the Examiner describe compositions of L-glufosinate, none of the references, alone or in combination, discloses or suggests the claimed composition.

Bartsch describes the preparation of L-glufosinate using a coupled enzymatic synthesis comprising “(i) reaction of aspartate and α -ketoglutarate in the presence of a suitable transaminase 1 to give oxalacetate and glutamate and (ii) reaction of glutamate and HMPB ... in the presence of a suitable transaminase 2 to give α -ketoglutarate and L-phosphinothricin.” *See* Bartsch, column 2, lines 1-29. L-phosphinothricin is the same as L-glufosinate and HMPB is the same as PPO. Bartsch further states that the starting materials glutamate, aspartate and α -ketoglutarate are commercially available, while HMPB was prepared as previously described in EP 30424. *See* Bartsch, column 2, lines 33-35. The transaminase 1 used is any enzyme with GOT activity. *See* Bartsch, column 2, lines 36-39. The method results in a composition of substantially pure L-glufosinate. The composition does not comprise any D-glufosinate as required by the pending claims. In fact, the patent does not disclose or claim any composition comprising D-glufosinate, L-glufosinate, and PPO in any ratio as set forth in the pending claims.

Knorr discloses and claims a method in which L- or D-glufosinate compounds are obtained by racemate resolution of D, L-homoalanin-4-yl (methyl)phosphonic acid via precipitation of one of the diastereomeric salts using chiral bases, such as quinine or cinchonine and allowing the salt of the D acid or of the L acid of the chiral base to crystallize out of the solution. *See* Knorr, column 2, lines 40-62. Thus, the final composition would not comprise the composition set forth in the pending claims.

Furthermore, Knorr teaches away from obtaining the claimed composition as it states that according to prior art referenced in this patent, “the L form (active form) can be obtained by enzymatic transamination. However, the working up of the transamination solution is technically very elaborate.” *See* Knorr, column 1, lines 22-25.

Hawkes is drawn to methods for making male or female sterile plants. Plants were transformed with a DAAO enzyme operably linked to a tissue specific promoter. Upon application of D-glufosinate, the DAAO enzyme oxidizes D-glufosinate to 2-oxo-4-(methylphosphinyl)-butanoic acid. The method relies upon endogenous transaminase for conversion to L-glufosinate. The purpose of Hawkes was to find a method for the production of sterile plants. The reaction described takes place inside an organelle of the plant to kill the plant cell and render it sterile. There is no teaching of a composition as claimed in the present claims. Hawkes was not concerned with making a composition of L-glufosinate and in fact would not have because the conversion of a small amount of D-glufosinate to L-glufosinate would have killed the cell.

Nothing in Hawkes teaches or suggests the claimed composition. In fact, although the desired enantiomer is different, Hawkes was presented with the problem of generating *ex vivo* samples of an enantiomerically enriched version of glufosinate (in Hawkes’ case, D-glufosinate) and proposed eight solutions. *See* Hawkes, column 10, line 14 through column 11, line 7. None of these solutions would have arrived at a composition of at least 80% D-glufosinate, L-glufosinate, and PPO. Therefore, Hawkes fails to disclose or suggest the claimed composition or a method that would arrive at the claimed composition.

Albizati describes and claims a process for producing L-glufosinate from a nitrile-containing substrate using an enzyme selected from the group consisting of a nitrilase, a nitrile

hydratase, a mixture of nitrile hydratase and amidase, and mixtures thereof. Therefore, the composition taught by Albizati is different from that of the claimed invention.

Angermann describes “a synergistic herbicidal composition comprising (a) at least one herbicide selected from the group consisting of glyphosate (A1) and agrochemically compatible salts thereof, and glufosinate (A1) and agrochemically compatible salts thereof and (b) a herbicide comprising a crystalline hydrate of 2-chloro-5-[3,4-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1-(2H)-pyrimidinyl]-4-fluoro-N-[[methyl-(1-methylethyl)amino]sulfonyl]benzamide...” See Angermann, claim 1. Angermann’s composition, while consisting of ‘glufosinate’ is completely different from the present claims.

As set forth above, none of the cited references, alone or in combination, teaches or suggests the composition set forth in the pending claims. In fact, the combined teachings of the cited references would not lead to the composition of the invention. Each of the references teach a unique method for the production of a substantially pure composition of D- or L- glufosinate. None of the resulting compositions produced by the references comprises D-glufosinate, PPO, and L-glufosinate wherein L-glufosinate is present in the composition in an amount at least 80% by weight based on the total amount of D-glufosinate, PPO, and L-glufosinate. Furthermore, as noted above, the Knorr patent disparages the use of a transaminase, which directly conflicts with the teaching of Bartsch. Therefore, one of ordinary skill in the art could not have combined the cited references to arrive at the present claims.

While each of the references does teach the production of L-glufosinate and that L-glufosinate is the active enantiomer, the references alone or in combination do not teach the claimed composition. Based on the full teachings of each of Bartsch, Knorr, Hawkes, Albizati, and Angermann, one of ordinary skill in the art would not and could not arrive at the present claims. Therefore, the composition of the invention is not the result of routine optimization as suggested by the Examiner. As the Federal Circuit has noted, a *prima facie* case of obviousness for optimization typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art. *In re Peterson*, 315 F.3d 1325 (Fed. Cir. 2003). Such is not the case, under the present facts.

For all these reasons, the rejection of the claims under 35 U.S.C. § 103 should be withdrawn.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

The absence of additional comments regarding the office action does not signify agreement with or concession of any characterization or requirement. In addition, because the arguments and comments herein may not be exhaustive, there may be additional arguments and comments that have not been expressed.

Except for the issue fees payable under 37 C.F.R. § 1.18, the Director is authorized to charge any additional fees during pendency of this application, including any required extension of time fees, or credit any overpayment to Deposit Account Number 20-1430. This paragraph is intended to be a constructive petition for extension of time in accordance with 37 C.F.R. § 1.136(a)(3).

If in the opinion of the Examiner, a telephone interview would expedite the allowance of the claims, the Examiner is invited to call the undersigned at 404-541-6815 or kbdavis@kilpatricktownsend.com.

Respectfully submitted,

Date: October 30, 2018

/Kimberlynn B. Davis/
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15/787,448	10/18/2017	Brian Michael Green	098816-1065095	4152
23342	7590	07/30/2018	EXAMINER	
KILPATRICK TOWNSEND & STOCKTON LLP			RAGHU, GANAPATHIRAM	
Mailstop: 22 - IP Docketing			ART UNIT	
1100 Peachtree Street			PAPER NUMBER	
Suite 2800			1652	
Atlanta, GEORGIA 30309			NOTIFICATION DATE	
UNITED STATES OF AMERICA			DELIVERY MODE	
			07/30/2018	
			ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

KTSDocketing2@kilpatrick.foundationip.com
ipefiling@kilpatricktownsend.com

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Detailed Action

Claims 1-7 (dated 10/18/17) are pending in this application and are now under consideration for examination.

Priority

This application is a DIV of 15/445,254 filed on 02/28/2017 now US Patent 9,834,802 and applicants' claim for the benefit of priority under 35 U.S.C. 119(e) to the Provisional Applications: 62/413,240 filed on 02/26/2016; 62/336,989 filed on 05/16/2016 and 62/302,421 filed on 03/02/2016 is acknowledged.

Information disclosure statement

The information disclosure statement (IDS) submitted on 10/23/17 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the IDS statement is considered and initialed by the examiner.

Specification-Objection

I. Examiner notes that applicants' have not updated the relationship of the instant application to its parent application that has matured into a patent. Examiner urges applicants' to amend said information in the specification in response to this office action

II. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. The specification contains hyperlinks to various site domains, for example, page 34 of the instant application. Applicants' are required to thoroughly scrutinize the specification and delete all embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01. Appropriate correction is required.

Claims Objections

Claims 1-7 are objected, due to the following informality: Claims 1-3 contain abbreviation; "PPO" in the claims. Examiner suggests at least in the first recitation of the abbreviation, expanding them to recite the full form of what the abbreviation stands for. Appropriate correction is required. For examination purposes "PPO" in claims 1-7 is interpreted as (2-oxo-4-(hydroxy(methyl)phosphinoyl)butyric acid)/HMPB.

Claim Rejections: 35 USC § 103 (AIA)

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102 of this title, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims the examiner presumes that the subject matter of the various claims was commonly owned as of the effective filing date of the claimed invention(s) absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and effective filing dates of each claim that was not commonly owned as of the effective filing date of the later invention in order for the examiner to consider the applicability of 35 U.S.C. 102(b)(2)(C) for any potential 35 U.S.C. 102(a)(2) prior art against the later invention.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection **will not be considered** a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartsch et al., (US 6,335,186, in IDS) and further in view of Knorr et al., (US 5,767,309),

Hawkes et al., (US 7,939,709 B2, in IDS), Albizati et al., (US 8,981,142) and Angermann et al., (US 8,716,184).

Claims 1-7 are directed to a composition comprising D-glufosinate, PPO and L-glufosinate, wherein L-glufosinate is present in the composition at an amount of 80% by weight or greater ... said composition as a dried powder, and method for selectively controlling weeds in an area comprising applying an effective amount of said composition.

Regarding claims 1-7 Bartsch et al., (US 6,335,186, in IDS), teach a method of preparation and compositions comprising greater than 98% purity L-glufosinate obtained from PPO (2-oxo-4-(hydroxy(methyl)phosphinoyl)butyric acid)/HMPB; quantitative yield of L-glufosinate without any contaminant and clearly suggest that the active principle is L-glufosinate with herbicidal/weed killing biochemical property; see Abstract; col. 1, lines 61-67 to col. 2, lines 1-45; col. 3, lines 34-52; col. 4, lines 15-20; TABLE 1; and entire document.

However, Bartsch et al., (US 6,335,186, in IDS) are silent regarding said composition further comprising D-glufosinate as claimed in the instant invention.

Regarding claims 1-7, Knorr et al., (US 5,767,309), provide clear teaching, suggestion and motivation for separation and methods for obtaining L-glufosinate from D-glufosinate racemate mixtures wherein greater than 99.5% of L-glufosinate purity is obtained and clearly suggest that the active principle is L-glufosinate with herbicidal/weed killing biochemical property; see Abstract; col. 1, lines 5-10; col. 2, lines 35-67; col. 8, lines 10-29 and entire document.

Regarding claims 1-7, Hawkes et al., (US 7,939,709 B2, in IDS), teach methods for making PPO comprising: reacting D-glufosinate (D-phosphinothricin) with a D-amino

acid oxidase (DAAO) enzyme isolated from *Rhodospiridium* sp., including specific variants of said DAAO enzyme to form PPO (2-oxo-4-(hydroxyl(methyl)phosphinoyl)butyric acid) and also “glutamate” as the amino donor in said catalytic reactions. Applicants’ are directed to the following sections in Hawkes et al., (US 7,939,709 B2): Abstract; col. 6, lines 38-44; col. 7, lines 60-67 to col. 8, lines 1-46; Example 1, col. 20, lines 50-67 to col. 21, lines 1-34; col. 36, lines 41-67 to col. 37, lines 1-36; col. 42, lines 54-60; and entire document.

Regarding claims 1-7, analogous art Albizati et al., (US 8,981,142), also provide clear teaching, suggestion and motivation for separation and methods for obtaining L-glufosinate from D-glufosinate racemate mixtures wherein greater than 99.5% of L-glufosinate purity is obtained and clearly suggest that the active principle is L-glufosinate with herbicidal/weed killing biochemical property; see Abstract; col. 1, lines 10-30; col. 11, lines 7-16; and entire document.

Regarding claims 1-7, analogous art Angermann et al., (US 8,716,184) teach combinations comprising various herbicides including compositions comprising L-glufosinate in powder form, and provide guidance regarding the ratio of active principle in said compositions by %weight (col. 21, lines 10-20); also see Abstract; col. 3, lines 12-30; col. 9, lines 20-67; and entire document.

It would have been obvious to a person of ordinary skill in the art to modify the teachings of Bartsch et al., that teaches a method for making L-glufosinate from PPO by incorporating the teachings Knorr et al., Hawkes et al., and Albizati et al., that teach method of converting D-glufosinate to L-glufosinate and method of purification of separating L-glufosinate (active principle with herbicidal activity) and herbicides with

specific combinations/compositions by %weight as suggested/guidance provided by Angermann et al., and obtain herbicidal compositions, commercially important with various industrial applications depending on the application for various crop protection. The expectation of success is high, because the combined teachings of Bartsch et al., Knorr et al., Hawkes et al., Albizati et al., and Angermann et al., provide the structural and functional elements of the instant invention (Teaching, Suggestion and Motivation).

Examiner also finds support in: MPEP 2144.05 [R-5]: Optimization Within Prior Art Conditions or Through Routine Experimentation Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation". As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272,276,205 USPQ 215,219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F2d 454,456,105 USPQ 233,235 (CCPA 1955).

Therefore, claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartsch et al., (US 6,335,186, in IDS) and further in view of Knorr et al., (US 5,767,309), Hawkes et al., (US 7,939,709 B2, in IDS), Albizati et al., (US 8,981,142) and Angermann et al., (US 8,716,184).

Allowable Subject Matter/Conclusion

None of the claims are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GANAPATHIRAMA RAGHU whose telephone number is (571)272-4533. The examiner can normally be reached on M-F 8:30am-5pm EST.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Mondesi can be reached on 571-272-0956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GANAPATHIRAMA RAGHU/
Primary Examiner, Art Unit 1652



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
15/787,448	10/18/2017	1652	730	098816-1065095	7	1

CONFIRMATION NO. 4152
CORRECTED FILING RECEIPT

23342
KILPATRICK TOWNSEND & STOCKTON LLP
Mailstop: 22 - IP Docketing
1100 Peachtree Street
Suite 2800
Atlanta, GA 30309



Date Mailed: 11/09/2017

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

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Assignment For Published Patent Application

AgriMetis, LLC, Lutherville, MD

Power of Attorney: The patent practitioners associated with Customer Number 23342

Domestic Priority data as claimed by applicant

This application is a DIV of 15/445,254 02/28/2017
which claims benefit of 62/413,240 10/26/2016 ABN
and claims benefit of 62/336,989 05/16/2016 ABN
and claims benefit of 62/302,421 03/02/2016 ABN

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.) - None.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

WHAT IS CLAIMED IS:

1. A composition comprising D-glufosinate, PPO, and L-glufosinate, wherein L-glufosinate is present in the composition at an amount of 80% by weight or greater based on the total amount of D-glufosinate, PPO, and L-glufosinate.
2. The composition of claim 1, wherein the amount of L-glufosinate is 90% by weight or greater based on the total amount of D-glufosinate, PPO, and L-glufosinate.
3. The composition of claim 1, wherein the amount of L-glufosinate is 95% by weight or greater based on the total amount of D-glufosinate, PPO, and L-glufosinate.
4. The composition of claim 1, wherein the composition is a dried powder.
5. A method for selectively controlling weeds in an area comprising applying an effective amount of the composition of claim 1.
6. A method for selectively controlling weeds in an area comprising applying an effective amount of the composition of claim 2.
7. A method for selectively controlling weeds in an area comprising applying an effective amount of the composition of claim 3.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	098816-1065095
		Application Number	
Title of Invention	METHODS FOR MAKING L-GLUFOSINATE		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Division of	15445254	2017-02-28
Prior Application Status	Abandoned	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
15445254	Claims benefit of provisional	62413240	2016-10-26
Prior Application Status	Abandoned	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
15445254	Claims benefit of provisional	62336989	2016-05-16
Prior Application Status	Abandoned	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
15445254	Claims benefit of provisional	62302421	2016-03-02
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.			

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)ⁱ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Remove
			Access Code ⁱ (if applicable)