

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the Remove 13496107 and 10684984 previously recorded on Reel 030157 Frame 0052. Assignor(s) hereby confirms the Add 13496017 and 10648984.
CONVEYING PARTY DATA	
Name	Execution Date
Sapphire Energy, Inc.	04/05/2013
RECEIVING PARTY DATA	
Name:	The Wellcome Trust Limited
Street Address:	215 Euston Road
City:	London
State/Country:	UNITED KINGDOM
Postal Code:	NW1 2BE
PROPERTY NUMBERS Total: 2	
Property Type	Number
Application Number:	13496017
Application Number:	10648984
CORRESPONDENCE DATA	
Fax Number:	2129692900
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	2129693000
Email:	trademark@proskauer.com
Correspondent Name:	Proskauer Rose LLP
Address Line 1:	11 Times Square
Address Line 4:	New York, NEW YORK 10036
ATTORNEY DOCKET NUMBER:	99999-719
NAME OF SUBMITTER:	Jenifer deWolf Paine
Signature:	/Jenifer deWolf Paine/

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PATENT  
 REEL: 030182 FRAME: 0966

CH \$80.00 13496017

Date:

04/09/2013

**Total Attachments: 32**

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**PATENT SECURITY AGREEMENT**

This PATENT SECURITY AGREEMENT (this "Patent Security Agreement") is made as of April 5, 2013, among Grantors listed on the signature pages hereof (collectively, jointly and severally, "Grantors" and each individually "Grantor"), and The Wellcome Trust Limited as trustee of the Wellcome Trust, a company organized in the United Kingdom, in its capacity as collateral agent for the Purchasers (together with its successors, "Collateral Agent").

**W I T N E S S E T H:**

WHEREAS, pursuant to that certain Convertible Promissory Note and Warrant Purchase Agreement, dated as of the date hereof (as amended, restated, supplemented, in whole or in part, replaced or otherwise modified from time to time, the "Purchase Agreement"), by and among Sapphire Energy, Inc., a Delaware corporation (the "Borrower") and the Purchasers (as defined therein), the Purchasers are willing to purchase, among other things, convertible promissory notes pursuant to the terms and conditions thereof;

WHEREAS, the Purchasers are willing to purchase convertible promissory notes as provided for in the Purchase Agreement, but only upon the condition, among others, that Grantors shall have executed and delivered to Collateral Agent, for the benefit of the Purchasers, that certain Security Agreement, dated as of the date hereof (including all annexes, exhibits or schedules thereto, as from time to time amended, restated, supplemented or otherwise modified, the "Security Agreement"); and

WHEREAS, pursuant to the Security Agreement, Grantors are required to execute and deliver to Collateral 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, Grantors hereby agree as follows:

1. DEFINED TERMS. All capitalized terms used but not otherwise defined herein have the meanings given to them in the Security Agreement or, if not defined therein, in the Purchase Agreement.

2. GRANT OF SECURITY INTEREST IN PATENT COLLATERAL. Each Grantor hereby unconditionally grants, assigns, and pledges to Collateral 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 such 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 such 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 License.

Notwithstanding anything herein to the contrary, "Patent Collateral" does not include any of the items excluded from the definition of "Collateral" in the Security Agreement.

3. SECURITY FOR OBLIGATIONS. This Patent Security Agreement and the Security Interest created hereby secures the payment and performance of all 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 Grantors, or any of them, to Collateral 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 any Grantor.

4. SECURITY AGREEMENT. The security interests granted pursuant to this Patent Security Agreement are granted in conjunction with the Security Interest granted to Collateral Agent, for the benefit of the Purchasers, pursuant to the Security Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of Collateral Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

5. AUTHORIZATION TO SUPPLEMENT. If any Grantor shall obtain rights to any new patentable inventions or become entitled to the benefit of any patent application or patent for any reissue, division, or continuation, of any patent, the provisions of this Patent Security Agreement shall automatically apply thereto. Grantors shall give prompt notice in writing to Collateral Agent with respect to any such new patent rights. Without limiting Grantors' obligations under this Section 5, Grantors hereby authorize Collateral Agent unilaterally to modify this Patent Security Agreement by amending Schedule I to include any such new patent rights of Grantors. Notwithstanding the foregoing, no failure to so modify this Patent Security Agreement or amend Schedule I shall in any way affect, invalidate or detract from Collateral Agent's continuing security interest in all Collateral, whether or not listed on Schedule I.

6. COUNTERPARTS. This Patent Security Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such separate counterparts shall together constitute but one and the same instrument. In proving this Patent Security Agreement in any judicial proceedings, it shall not be necessary to produce or account for more than one such counterpart signed by the party against whom such enforcement is sought. Any signatures delivered by a party by facsimile transmission or other electronic transmission shall be deemed an original signature hereto.

7. CONSTRUCTION. 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). Any reference herein to any Person shall be construed to include such Person's successors and assigns. For purposes of this Patent Security Agreement, "Insolvency Proceeding" means any proceeding commenced by or against any Person under any provision of Title 11 of the United States Code or under any other state, federal or

non-US bankruptcy or insolvency law, assignments for the benefit of creditors, formal or informal moratoria, compositions, extensions generally with creditors, or proceedings seeking reorganization, arrangement, or other similar relief.

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IN WITNESS WHEREOF, each Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

**GRANTORS:**

**SAPPHIRE ENERGY, INC.,**  
a Delaware corporation

By: Tom Willardson  
Thomas Willardson  
Chief Financial Officer and Treasurer

**APOLLO 314159, LLC,**  
a Delaware limited liability company

By: \_\_\_\_\_  
David Buttaro  
Chief Financial Officer

**APOLLO 314159, LLC,**  
a Texas limited liability company

By: \_\_\_\_\_  
David Buttaro  
Chief Financial Officer

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By: \_\_\_\_\_  
Thomas Willardson  
Chief Financial Officer and Treasurer

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a Delaware limited liability company

By: \_\_\_\_\_  
David Buttaro  
Chief Financial Officer

**APOLLO 314159, LLC,**  
a Texas limited liability company

By: \_\_\_\_\_  
David Buttaro  
Chief Financial Officer

ACCEPTED AND ACKNOWLEDGED BY: THE WELLCOME TRUST LIMITED AS TRUSTEE  
OF THE WELLCOME TRUST, as Collateral Agent

By: 

Name: ~~PETER PERLE~~ PERLE

Title: ~~MANAGING DIRECTOR~~

PATENT SECURITY AGREEMENT



**SCHEDULE I**  
**to**  
**PATENT SECURITY AGREEMENT**

**Patent Registrations and Applications**

<b>TITLE</b>	<b>Country</b>	<b>Appl. No. Filing Date</b>	<b>Publ. No. Publ. Date</b>	<b>Patent No. Grant Date</b>
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	Argentina	P090102380 06/26/2009	072376 08/25/2010	
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	Argentina	P080103947 09/11/2008	072332 08/25/2010	
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	Argentina	P080103948 09/11/2008		
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	Argentina	P080103929 09/10/2008	073437 11/10/2010	
A SYSTEM FOR TRANSFORMATION OF THE CHLOROPLAST GENOME OF SCENEDESMUS SP. AND DUNALIELLA SP.	Australia	2010295739 09/14/2010		
ENGINEERING SALT TOLERANCE IN PHOTOSYNTHETIC MICROORGANISMS	Australia	2010224029 03/11/2010		
GENETICALLY ENGINEERED HERBICIDE RESISTANT ALGAE	Australia	2009333021 12/22/2009		
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	Australia	2008260555 05/30/2008	2008260555 07/26/2012	2008260555 11/08/2012
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	Australia	2009261966 06/26/2009		
METHODS OF PREPARING OIL COMPOSITIONS FOR FUEL REFINING	Australia	2010239228 04/21/2010		
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	Australia	2008298953 09/10/2008	2008298953 08/16/2012	2008298953 11/29/2012
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	Australia	2008302339 09/17/2008	2008302339 11/01/2012	2008302339 02/14/2013
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	Australia	2008299020 09/10/2008		
NOVEL ACETYL COA CARBOXYLASES	Australia	2010295795 09/13/2010		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Australia	2011265588 07/26/2011	2011265588 05/24/2012	2011265588 09/06/2012

TITLE	Country	Appl. No. Filing Date	Publ. No. Publ. Date	Patent No. Grant Date
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Australia	2012201883 07/26/2011		
PRODUCTION OF FC-FUSION POLYPEPTIDES IN EUKARYOTIC ALGAE	Australia	2008321074 11/12/2008		
REMOVAL OF NITROGEN FROM A CHLOROPHYLL OR PHEOPHYTIN CONTAINING BIOMASS	Australia	2009333461 12/08/2009		
SALT TOLERANT ORGANISMS	Australia	201295660 09/15/2010		
STRESS-INDUCED LIPID TRIGGER	Australia	2011213006 02/01/2011		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Australia	2008307471 10/06/2008		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Australia	2009302889 04/08/2009		
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Australia	2008260557 05/30/2008	2008260557 08/02/2012	2008260557 11/15/2012
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Australia	2012241142 05/30/2008	2012241142 03/14/2013	
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Belgium	08836521.8 10/06/2008	2195426 06/16/2010	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Belgium	08767983.3 05/30/2008	2162537 03/17/2010	2162537 01/04/2012
BIOFUEL PRODUCTION IN PROKARYOTES AND EUKARYOTES	Brazil	PI1008958-6 03/05/2010		
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	Brazil	PI0914706-3 06/26/2009		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Brazil	TBA 07/26/2011		
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Brazil	PI0812042-0 05/30/2008		
A SYSTEM FOR TRANSFORMATION OF THE CHLOROPLAST GENOME OF SCENEDESMUS SP. AND DUNALIELLA SP.	Canada	2773675 09/14/2010		

TITLE	Country	Appl. No. Filing Date	Publ. No. Publ. Date	Patent No. Grant Date
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	Canada	2692893 05/30/2008		
METHODS OF PREPARING OIL COMPOSITIONS FOR FUEL REFINING	Canada	2756424 04/21/2010		
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	Canada	2698289 09/10/2008		
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	Canada	2698908 09/17/2008		
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	Canada	2698801 09/10/2008		
PRODUCTION OF FC-FUSION POLYPEPTIDES IN EUKARYOTIC ALGAE	Canada	2705542 11/12/2008		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Canada	2698627 10/06/2008		
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	Chile	2680-2008 09/10/2008		
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	Chile	2681-2008 09/10/2008		
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	Chile	2690-2008 09/10/2008		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Chile	230-2013 07/26/2011		
A SYSTEM FOR TRANSFORMATION OF THE CHLOROPLAST GENOME OF SCENEDESMUS SP. AND DUNALIELLA SP.	China	2010800525 43.8 09/14/2010	102630140 08/08/2012	
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	China	2008801011 76.9 05/30/2008	101835901 09/15/2010	ZL20088010 1176.9 03/06/2013
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	China	2009801242 45.2 06/26/2009	102076842 05/25/2011	
METHODS OF PREPARING OIL COMPOSITIONS FOR FUEL REFINING	China	2010800175 30.7 04/21/2010	102405271 04/04/2012	
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	China	2008801153 32.7 09/10/2008	101889068 11/17/2010	

TITLE	Country	Appl. No. Filing Date	Publ. No. Publ. Date	Patent No. Grant Date
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	China	2008801073 92.4 09/17/2008	101855320 10/06/2010	
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	China	2008801148 11.7 09/10/2008	101896607 11/24/2010	
NOVEL ACETYL COA CARBOXYLASES	China	2010800525 42.3 09/13/2010	102741413 10/17/2012	
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	China	2011800412 68.4 07/26/2011		
SALT TOLERANT ORGANISMS	China	2010800516 34.X 09/15/2010	102656267 09/05/2012	
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	China	2008801097 73.6 10/06/2008	101939423 01/05/2011	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	China	2008801007 56.6 05/30/2008	101896603 11/24/2010	
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Denmark	08836521.8 10/06/2008	2195426 06/16/2010	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Denmark	08767983.3 05/30/2008	2162537 03/17/2010	2162537 01/04/2012
A SYSTEM FOR TRANSFORMATION OF THE CHLOROPLAST GENOME OF SCENEDESMUS SP. AND DUNALIELLA SP.	European Patent Application	10817726.2 09/14/2010	2477478 07/25/2012	
BIOFUEL PRODUCTION IN PROKARYOTES AND EUKARYOTES	European Patent Application	10751219.6 03/05/2010	2406378 01/18/2012	
GENETICALLY ENGINEERED HERBICIDE RESISTANT ALGAE	European Patent Application	09837013.3 12/22/2009	2381761 11/02/2011	
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	European Patent Application	08767981.7 05/30/2008	2171085 04/07/2010	
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	European Patent Application	09771189.9 06/26/2009	2294179 03/16/2011	
METHODS OF PREPARING OIL COMPOSITIONS FOR FUEL REFINING	European Patent Application	10767732.0 04/21/2010	2421934 02/29/2012	

TITLE	Country	Appl. No. Filing Date	Publ. No. Publ. Date	Patent No. Grant Date
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	European Patent Application	08799423.2 09/10/2008	2203542 07/07/2010	
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	European Patent Application	08832007.2 09/17/2008	2205697 07/14/2010	
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	European Patent Application	08799404.2 09/10/2008	2188376 05/26/2010	
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	European Patent Application	11813057.4 07/26/2011		
PRODUCTION OF FC-FUSION POLYPEPTIDES IN EUKARYOTIC ALGAE	European Patent Application	08848913.3 11/12/2008	2220125 08/25/2010	
REMOVAL OF NITROGEN FROM A CHLOROPHYLL OR PHEOPHYTIN CONTAINING BIOMASS	European Patent Application	09836737.8 12/08/2009	2373803 10/12/2011	
STRESS-INDUCED LIPID TRIGGER	European Patent Application	11740278.4 02/01/2011	2531600 12/12/2012	
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	European Patent Application	08836521.8 10/06/2008	2195426 06/16/2010	
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	European Patent Application	09819530.8 04/08/2009	2342344 07/13/2011	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	European Patent Application	08767983.3 05/30/2008	2162537 03/17/2010	2162537 01/04/2012
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	European Patent Application	11184458.5 05/30/2008	2463370 06/13/2012	
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	France	08836521.8 10/06/2008	2195426 06/16/2010	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	France	08767983.3 05/30/2008	2162537 03/17/2010	2162537 01/04/2012
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Germany	08836521.8 10/06/2008	2195426 06/16/2010	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Germany	08767983.3 05/30/2008	2162537 03/17/2010	6020080125 04.1 01/04/2012
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	Gulf Cooperation Council	2009/13784 06/27/2009		

TITLE	Country	Appl. No. Filing Date	Publ. No. Publ. Date	Patent No. Grant Date
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	Gulf Cooperation Council	2008/11702 09/10/2008		
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	Gulf Cooperation Council	2008/11709 09/13/2008		
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	Gulf Cooperation Council	2008/11698 09/10/2008		
A SYSTEM FOR TRANSFORMATION OF THE CHLOROPLAST GENOME OF SCENEDESMUS SP. AND DUNALIELLA SP.	India	1694/DELN P/2012 09/14/2010		
BIOFUEL PRODUCTION IN PROKARYOTES AND EUKARYOTES	India	7027/DELN P/2011 03/05/2010		
GENETICALLY ENGINEERED HERBICIDE RESISTANT ALGAE	India	5776/DELN P/2011 12/22/2009		
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	India	8022/DELN P/2009 05/30/2008		
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	India	8867/DELN P/2010 06/26/2009	8867/DELN P/2010 A 03/09/2012	
METHODS OF PREPARING OIL COMPOSITIONS FOR FUEL REFINING	India	7073/DELN P/2011 04/21/2010		
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	India	1436/DELN P/2010 09/10/2008	1436/DELN P/2010 A 08/06/2010	
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	India	2199/DELN P/2010 09/17/2008	2199/DELN P/2010 02/04/2011	
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	India	1624/DELN P/2010 09/10/2008	1624/DELN P/2010 A 08/06/2010	
NOVEL ACETYL COA CARBOXYLASES	India	1696/DELN P/2012 09/13/2010		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	India	139/DELNP/ 2013 07/26/2011		
PRODUCTION OF FC-FUSION POLYPEPTIDES IN EUKARYOTIC ALGAE	India	3837/DELN P/2010 11/12/2008	3837/DELN P/2010 11/11/2011	

TITLE	Country	Appl. No. Filing Date	Publ. No. Publ. Date	Patent No. Grant Date
REMOVAL OF NITROGEN FROM A CHLOROPHYLL OR PHEOPHYTIN CONTAINING BIOMASS	India	5174/DELN P/2011 12/08/2009		
SALT TOLERANT ORGANISMS	India	1604/DELN P/2012 09/15/2010		
STRESS-INDUCED LIPID TRIGGER	India	7154/DELN P/2012 02/01/2011		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	India	2066/DELN P/2010 10/06/2008	2066/DELN P/2010 08/20/2010	
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	India	2743/DELN P/2011 04/08/2009	2743/DELN P/2011 A 03/23/2012	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	India	8024/DELP N/2009 05/30/2008		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Indonesia	W00 2013 00172 07/26/2011		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Ireland	08836521.8 10/06/2008	2195426 06/16/2010	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Ireland	08767983.3 05/30/2008	2162537 03/17/2010	2162537 01/04/2012
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	Israel	209814 06/26/2009		
METHODS FOR SCREENING NON-VASCULAR PHOTOSYNTHETIC ORGANISMS	Israel	202349 05/30/2008		
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	Israel	204200 09/10/2008		
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	Israel	204330 09/17/2008		
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	Israel	204243 09/10/2008		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Israel	224056 07/26/2011		

TITLE	Country	Appl. No. Filing Date	Publ. No. Publ. Date	Patent No. Grant Date
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Israel	204250 10/06/2008	204250 12/31/2012	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Israel	202303 05/30/2008		
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	Japan	2010-510358 05/30/2008	2010-528609 08/26/2010	
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	Japan	2010-524967 09/10/2008	2010-539294 12/16/2010	
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	Japan	2010-525111 09/17/2008	2010-539300 12/16/2010	
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	Japan	2010-524244 09/10/2008		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Japan	TBA 07/26/2011		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Japan	2010-528006 10/06/2008	2010-539979 12/24/2010	
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	Korea, Republic of	10-2009-7027397 05/30/2008		
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	Korea, Republic of	10-2013-7001559 05/30/2008		
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	Korea, Republic of	10-2010-7007702 09/10/2008		
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	Korea, Republic of	10-2010-7008277 09/17/2008		
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	Korea, Republic of	10-2010-7007705 09/10/2008		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Korea, Republic of	10-2010-7008929 10/06/2008		



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HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	Mexico	MX/a/2009/012839 05/30/2008		293729 12/14/2011
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	Mexico	MX/a/2010/013917 06/26/2009		
METHODS OF PREPARING OIL COMPOSITIONS FOR FUEL REFINING	Mexico	MX/a/2011/011047 04/21/2010		
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	Mexico	MX/a/2010/002721 09/10/2008		
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	Mexico	MX/a/2010/002821 09/17/2008		302976 09/03/2012
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	Mexico	MX/a/2010/002723 09/10/2008		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Mexico	MX/a/2013/000892 07/26/2011		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Mexico	MX/a/2010/003157 10/06/2008		
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Mexico	MX/a/2009/012840 05/30/2008		294630 01/13/2012
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Mexico	MX/a/2011/012252 05/30/2008		
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	Morocco	33538 06/26/2009		32491 07/01/2011
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Morocco	TBA 07/26/2011		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Netherlands	08836521.8 10/06/2008	2195426 06/16/2010	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Netherlands	08767983.3 05/30/2008	2162537 03/17/2010	2162537 01/04/2012
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	New Zealand	581472 05/30/2008	581472 02/24/2012	581472 06/05/2012

TITLE	Country	Appl. No. Filing Date	Publ. No. Publ. Date	Patent No. Grant Date
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	New Zealand	589879 06/26/2009	589879 08/31/2012	589879 12/11/2012
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	New Zealand	583620 09/10/2008	583620 08/31/2012	583620 12/11/2012
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	New Zealand	583754 09/17/2008	583754 04/27/2012	583754 08/06/2012
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	New Zealand	583701 09/10/2008		583701 07/09/2012
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	New Zealand	598302 09/10/2008		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	New Zealand	583682 10/06/2008	583682 07/27/2012	583682 11/05/2012
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	New Zealand	581473 05/30/2008	581473 02/24/2012	581473 06/05/2012
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Oman	OM/P/2013/ 00020 07/26/2011		
BIOMASS YIELD GENES	PCT Application	PCT/US201 3/026208 02/14/2013		
COMPOSITIONS OF MATTER COMPRISING EXTRACTED ALGAE OIL	PCT Application	PCT/US201 2/050189 08/09/2012	2013/02308 6 02/14/2013	
LIPID AND GROWTH TRAIT GENES	PCT Application	PCT/US201 3/027661 02/25/2013		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	PCT Application	PCT/US201 1/045398 07/26/2011	2012/01583 1 02/02/2012	
PROCESSES FOR UPGRADING ALGAE OILS AND PRODUCTS THEREOF	PCT Application	PCT/US201 2/062468 10/29/2012		
PRODUCTION OF AROMATICS FROM RENEWABLE RESOURCES	PCT Application	PCT/US201 1/067444 12/27/2011	2012/08854 6 06/28/2012	
SODIUM HYPOCHLORITE RESISTANT GENES	PCT Application	PCT/US201 3/026186 02/14/2013		
THERMAL TREATMENT OF CRUDE ALGAE OIL	PCT Application	PCT/US201 2/045305 07/02/2012	2013/00657 8 01/10/2013	

TITLE	Country	Appl. No. Filing Date	Publ. No. Publ. Date	Patent No. Grant Date
USE OF FUNGICIDES IN LIQUID SYSTEMS	PCT Application	PCT/US2012/060120 10/12/2012		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Peru	000138-2013/DIN 07/26/2011		
A SYSTEM FOR TRANSFORMATION OF THE CHLOROPLAST GENOME OF SCENEDESMUS SP. AND DUNALIELLA SP.	Singapore	201201837-0 09/14/2010		
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	Singapore	201200699-5 05/30/2008	178735 03/29/2012	
METHODS OF PREPARING OIL COMPOSITIONS FOR FUEL REFINING	Singapore	201107601-5 04/21/2010		
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	Singapore	201001516-2 09/10/2008		
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	Singapore	201001754-9 09/17/2008		159937
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	Singapore	201001691-3 09/10/2008		159895 01/31/2013
PRODUCTION OF FC-FUSION POLYPEPTIDES IN EUKARYOTIC ALGAE	Singapore	201003300-9 11/12/2008		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Singapore	201002197-0 10/06/2008		160575 11/30/2012
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Sweden	08836521.8 10/06/2008	2195426 06/16/2010	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Sweden	08767983.3 05/30/2008	2162537 03/17/2010	2162537 01/04/2012
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	Switzerland	08836521.8 10/06/2008	2195426 06/16/2010	
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	Switzerland	08767983.3 05/30/2008	2162537 03/17/2010	2162537

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PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	Thailand	1301000047 07/26/2011		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	United Arab Emirates	85/2013 07/26/2011		
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	United Kingdom	0904493.4 09/10/2008	2463337 03/17/2010	2463337 11/21/2012
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	United Kingdom	0904761.4 09/17/2008	2454853 05/27/2009	2454853 07/14/2010
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	United Kingdom	1115167.7 07/26/2011	2495466 04/17/2013	
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	United Kingdom	0818260.2 10/06/2008	2453648 04/15/2009	2453648 01/05/2011
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	United Kingdom	0913302.6 10/06/2008	2460351 12/02/2009	2460351 03/30/2011
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	United Kingdom	1100928.9 10/06/2008	2475435 05/18/2011	2475435 03/28/2012
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	United Kingdom	08767983.3 05/30/2008	2162537 03/17/2010	2162537 01/04/2012
A SYSTEM FOR TRANSFORMATION OF THE CHLOROPLAST GENOME OF SCENEDESMUS SP. AND DUNALIELLA SP.	United States	13/496149 09/14/2010	2012/02520 54 10/04/2012	
BIOFUEL PRODUCTION IN PROKARYOTES AND EUKARYOTES	United States	13/255888 03/05/2010	2012/00585 35 03/08/2012	
CARBONATION SUMP	United States	61/702003 09/17/2012		
ENGINEERING SALT TOLERANCE IN PHOTOSYNTHETIC MICROORGANISMS	United States	13/255878 03/11/2010	2012/00943 86 04/19/2012	
GENETICALLY ENGINEERED HERBICIDE RESISTANT ALGAE	United States	13/142917 12/22/2009	2012/03221 02 12/20/2012	
HARVESTING ALGAE FROM BRACKISH AND NON-BRACKISH WATER	United States	61/736939 12/13/2012		

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HERBICIDE RESISTANT ORGANISMS	United States	13/496107 09/15/2010	2012/02200 21 08/30/2012	
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	United States	13/585758 08/14/2012	2012/03090 14 12/06/2012	
HIGH THROUGHPUT SCREENING OF GENETICALLY MODIFIED PHOTOSYNTHETIC ORGANISMS	United States	12/156432 05/30/2008	2009/02467 66 10/01/2009	8268553 09/18/2012
INDUCTION OF FLOCCULATION IN PHOTOSYNTHETIC ORGANISMS	United States	13/001027 06/26/2009	2011/01595 95 06/30/2011	
METHODS OF PREPARING OIL COMPOSITIONS FOR FUEL REFINING	United States	13/265508 04/21/2010	2012/01161 38 05/10/2012	
METHODS OF PRODUCING ORGANIC PRODUCTS WITH PHOTOSYNTHETIC ORGANISMS AND PRODUCTS AND COMPOSITIONS THEREOF	United States	12/208264 09/10/2008	2009/00878 90 04/02/2009	
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	United States	13/294999 09/17/2008	2012/00550 81 03/08/2012	8292975 10/23/2012
METHODS OF REFINING HYDROCARBON FEEDSTOCKS	United States	12/212558 09/17/2008	2009/01262 60 05/21/2009	8075641 12/13/2011
MOLECULE PRODUCTION BY PHOTOSYNTHETIC ORGANISMS	United States	12/207761 09/10/2008	2009/02805 45 11/12/2009	
NOVEL ACETYL COA CARBOXYLASES	United States	13/496173 09/13/2010	2012/02315 46 09/13/2012	
OLEAGINOUS COMPOUNDS FROM BIOMASS	United States	13/479611 05/24/2012	2012/02530 56 10/04/2012	
ORGANISMS TOLERANT TO BEING CULTURED IN A SOLUTION WITH A BASIC PH	United States	61/684381 08/17/2012		
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS AND NUTRIENTS FROM BIOMASS	United States	13/298149 11/16/2011	2012/00731 84	
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	United States	13/356830 01/24/2012	2012/01908 72 07/26/2012	
PROCESS FOR THE RECOVERY OF OLEAGINOUS COMPOUNDS FROM BIOMASS	United States	13/191373 07/26/2011	2012/00222 78 01/26/2012	8192628 06/05/2012

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PRODUCTION OF FC-FUSION POLYPEPTIDES IN EUKARYOTIC ALGAE	United States	12/777952 11/12/2008	2011/01515 15 06/23/2011	
PRODUCTION OF THERAPEUTIC PROTEINS IN PHOTOSYNTHETIC ORGANISMS	United States	13/510229 11/19/2010		
REMOVAL OF NITROGEN FROM A CHLOROPHYLL OR PHEOPHYTIN CONTAINING BIOMASS	United States	13/133354 12/08/2009	2011/02565 94 10/20/2011	
SALT TOLERANT ORGANISMS	United States	13/496017 09/15/2010	2012/02889 18 11/15/2012	
STRESS-INDUCED LIPID TRIGGER	United States	13/576821 02/01/2011	2012/03221 57 12/20/2012	
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	United States	12/384893 04/08/2009		
SYSTEM FOR CAPTURING AND MODIFYING LARGE PIECES OF GENOMIC DNA AND CONSTRUCTING ORGANISMS WITH SYNTHETIC CHLOROPLASTS	United States	12/287230 10/06/2008	2009/01239 77 05/14/2009	8314222 11/20/2012
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	United States	13/269414 05/30/2008	2012/01078 53 05/03/2012	8318436 11/27/2012
USE OF GENETICALLY MODIFIED ORGANISMS TO GENERATE BIOMASS DEGRADING ENZYMES	United States	12/156450 05/30/2008	2009/02531 69 10/08/2009	8143039 03/27/2012
VARIANT ISOPRENOID PRODUCING ENZYMES AND USES THEREOF	United States	13/260696 03/29/2010	2012/00646 29 03/15/2012	

### Patent Licenses

Appl. No.	Filing Date	Publ. No.	Publ. Date	Patent No.	Grant Date	Country	Title
503985	10/05/1998			503985	06/15/2001	New Zealand	Isolation And Expression Of Farnesene Synthase From Peppermint, Mentha X Piperita, L.

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09/166460	10/05/1998			6008043	12/28/1999	United States	Isolation And Bacterial Expression Of A Sesquiterpene Synthase Cdna Clone From Peppermint (Mentha X Piperita, L.) That Produces The Aphid Alarm Pheromone (E)-B-Farnesene
09/860282	05/17/2001	2003/0166204	09/04/2003	6846659	01/25/2005	United States	Isolation And Bacterial Expression Of A Sesquiterpene Synthase Cdna Clone From Peppermint (Mentha X Piperita, L.) That Produces The Aphid Alarm Pheromone (E)-Beta-Farnesene
09/361718	07/27/1999			6258602	07/10/2001	United States	Isolation And Bacterial Expression Of A Sesquiterpene Synthase Cdna Clone From Peppermint (Mentha Chi Piperita, L.) That Produces The Aphid Alarm Pheromone (E)-Beta-Farnesene
09/865171	01/20/1999			6451576	09/17/2002	United States	Sesquiterpene Synthases From Grand Fir Abies Grandis, And Methods Of Use
09/234393	01/20/1999			6265639	07/24/2001	United States	Gymnosperm Nucleic Acid Molecules Encoding Sesquiterpene Synthases And Methods Of Use

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09/360545	07/26/1999			6429014	08/06/2002	United States	Monoterpene Synthases From Grand Fir (Abies Grandis)
29752/00	01/27/2000	29752/00	10/26/2000	772346	01/27/2000	Australia	1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase, And Methods Of Use
2360758	01/27/2000			2360758	09/20/2011	Canada	1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase, And Methods Of Use
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00908405.4	01/27/2000	1151079	04/19/2006	1151079	04/16/2006	Denmark	1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase, And Methods Of Use
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00908405.4	01/27/2000	1151079	04/19/2006	1151079	04/19/2006	United Kingdom	1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase, And Methods Of Use
00908405.4	01/27/2000	1151079	04/19/2006	1151079	04/19/2006	Italy	1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase, And Methods Of Use
2000-597407	01/27/2000	2002-541771	12/10/2002	4495858	04/16/2010	Japan	1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase, And Methods Of Use
00908405.4	01/27/2000	1151079	04/19/2006	1151079	04/19/2006	Liechtenstein	1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase, And Methods Of Use
00908405.4	01/27/2000	1151079	04/19/2006	1151079	04/19/2006	Netherlands	1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase, And Methods Of Use
09/874562	01/26/2000			6420159	07/16/2002	United States	1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase, And Methods Of Use
09/491362	01/26/2000			6281017	08/28/2001	United States	1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase, And Methods Of Use
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09/420211	10/18/1999			6303330	10/16/2001	United States	Geranyl Diphosphate Synthase Large Subunit, And Methods Of Use
08/951924	10/16/1997			5876964	03/02/1999	United States	Geranyl Diphosphate Synthase From Mint
09/434774	11/04/1999			6235514	05/22/2001	United States	Nucleic Acid Molecules Encoding Isopentenyl Monophosphate Kinase, And Methods Of Use
09/292768	04/14/1999			6194185	02/27/2001	United States	Recombinant Materials And Methods For The Production Of Limonene Hydroxylases
08/881784	06/24/1997			6083731	07/04/2000	United States	Recombinant Materials And Methods For The Production Of Limonene Hydroxylases
09/146221	09/01/1998			6190895	02/20/2001	United States	Nucleic And Amino Acid Sequences Relating To A Novel Transketolase, And Methods For The Expression Thereof
2000-581172	10/27/1999	2002-529077	09/10/2002			Japan	Nucleic Acids Encoding Taxus Geranylgeranyl Diphosphate Synthase, And Method Of Use
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08/846526	04/29/1997			5871988	02/16/1999	United States	Dna Encoding Limonene Synthase From Mentha Spicata
11/047828	01/31/2005	2005/0204417	09/15/2005	7390643	06/24/2008	United States	Geranyl Diphosphate Synthase Molecules, And Nucleic Acid Molecules Encoding Same
07/930600	11/02/1992			5798208	08/25/1998	United States	Walk-Through Mutagenesis
08/453623	05/30/1995			6649340	11/18/2003	United States	Walk-Through Mutagenesis
08/452724	11/03/1998			5830650	11/03/1998	United States	Walk-Through Mutagenesis
2482769	04/16/2003					Canada	Doping In Walk-Through Mutagenesis
03726328.2	04/16/2003	1495142	10/30/2003	1495142	09/26/2007	Germany	Doping In Walk-Through Mutagenesis
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03726328.2	04/16/2003	1495142	10/30/2003	1495142	09/26/2007	Spain	Doping In Walk-Through Mutagenesis
03726328.2	04/16/2003	1495142	10/30/2003	1495142	09/26/2007	France	Doping In Walk-Through Mutagenesis
03726328.2	04/16/2003	1495142	10/30/2003	1495142	09/26/2007	United Kingdom	Doping In Walk-Through Mutagenesis
03726328.2	04/16/2003	1495142	10/30/2003	1495142	09/26/2007	Hungary	Doping In Walk-Through Mutagenesis
03726328.2	04/16/2003	1495142	10/30/2003	1495142	09/26/2007	Ireland	Doping In Walk-Through Mutagenesis

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2003-586379	04/16/2003	2005-523026	08/04/2005			Japan	Doping In Walk-Through Mutagenesis
PA/a/2004/010222	04/16/2003	PA/a/2004/010222	03/07/2005			Mexico	Doping In Walk-Through Mutagenesis
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2542192	06/25/2004					Canada	Look-Through Mutagenesis
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2006-517625	06/25/2004	2007-524390	08/30/2007			Japan	Look-Through Mutagenesis
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2278523	01/16/1998					Canada	Rna Binding Protein And Binding Site Useful For Translational Activation In Chloroplasts
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98903525.8	01/16/1998	1007706	07/23/1998	1007706	10/10/2012	European Patent Application	Rna Binding Protein And Binding Site Useful For Expression Of Recombinant Molecules
98903525.8	01/16/1998	1007706	07/23/1998	1007706	10/10/2012	France	Rna Binding Protein And Binding Site Useful For Expression Of Recombinant Molecules
98903525.8	01/16/1998	1007706	07/23/1998	1007706	10/10/2012	United Kingdom	Rna Binding Protein And Binding Site Useful For Expression Of Recombinant Molecules
07110895.5	10/09/2007	1007706	07/23/1998			Hong Kong	Rna Binding Protein And Binding Site Useful For Translational Activation In Chloroplasts
98903525.8	01/16/1998	1007706	07/23/1998	1007706	10/10/2012	Ireland	Rna Binding Protein And Binding Site Useful For Expression Of Recombinant Molecules
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09/341550	07/13/1999			6156517	12/05/2000	United States	Rna Binding Protein And Binding Site Useful For Expression Of Recombinant Molecules
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201002884-3	11/12/2008					Singapore	Production Of Cytotoxic Antibody-Toxin Fusion In Eukaryotic Algae
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33295/99	03/09/1999	748604	06/06/2002	748604	06/06/2002	Australia	Expression Of Trehalose Biosynthetic Genes In Plants
138191	03/09/1999	138191	10/31/2001			Israel	Expression Of Trehalose Biosynthetic Genes In Plants
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2003239182	04/23/2003	2003239182	11/06/2008	2003239182	11/06/2008	Australia	Expression Of Polypeptides In Chloroplasts, And Compositions And Methods For Expressing Same
2008202053	04/23/2003	2008202053	05/29/2008			Australia	Expression Of Polypeptides In Chloroplasts, And Compositions And Methods For Expressing Same
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03812392.4	04/23/2003	1886512	12/27/2006			Hong Kong	Expression Of Polypeptides In Chloroplasts, And Compositions And Methods For Expressing Same
164549	04/23/2003			164549	03/31/2011	Israel	Expression Of Polypeptides In Chloroplasts, And Compositions And Methods For Expressing Same
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10-2004-7017113	04/23/2003			1107380	01/11/2012	Korea, Republic of	Expression Of Polypeptides In Chloroplasts, And Compositions And Methods For Expressing Same
PA/a/2004/010432	04/23/2003	PA/a/2004/010432	06/01/2005	289342	08/16/2011	Mexico	Expression Of Polypeptides In Chloroplasts, And Compositions And Methods For Expressing Same
MX/a/2010/011897	04/23/2003			303384	09/14/2012	Mexico	Expression Of Polypeptides In Chloroplasts, And Compositions And Methods For Expressing Same
2004/08498	04/23/2003	2004/08498	03/29/2006	2004/08498	03/29/2006	South Africa	Expression Of Polypeptides In Chloroplasts, And Compositions And Methods For Expressing Same