



2/25/2016

# Freedom to Operate

Sample Report

Ruchica Kumar  
NOVOCUS LEGAL LLP

## CONTENTS

Introduction.....	2
Objective.....	2
Methodology .....	2
Search Assumptions.....	3
Key Features .....	3
Key Strings .....	4
Search Results – Bibliography.....	5
Detailed Analysis.....	6
Claim Reference Mapping with invention key features .....	6
Claim Theme Analysis .....	7
Project Organization .....	7
Disclaimer .....	8

## INTRODUCTION

This document will include a Freedom to Operate work sample as provided by Novocus Legal LLP.

## OBJECTIVE

- A freedom-to-operate search was conducted in US and European jurisdictions to identify relevant search results related to biofuels.
- The search was concentrated on identifying processes that disclose the key features of the given product (listed in worksheet titled 'Key Features.'). 12 relevant results (4 patent families) were identified to be relevant to the scope of the project.

## METHODOLOGY

The methodology adopted for this search involved the following set of activities:

1. A complete understanding of the technology and the scope of the search was developed. The key features of the given product were determined for the purpose of analysis.
2. A set of exemplary keywords and key strings for conducting the patent search were developed. These keystings and the search logic have been provided in the worksheet titled 'Key Strings.' These key strings were finalized in collaboration with the client.
3. The keystings highlighted in 'grey' in the table of key strings (key strings 7 and 9) were finally used to conduct the search on the selected database and obtain sets of results relevant to the chosen subject of study.
4. As a next step, the set of results from the above key strings were analyzed in two phases. In Phase I, the results were analyzed on the basis of their title and abstract to identify 20 potentially relevant results for the given technology or domain. In Phase II, the potentially relevant results identified during Phase I were analyzed in detail (for claimed matter) to identify seven relevant results.
5. Based on the above analysis, the key features of the given technology and the claimed matter in the identified seven relevant patents/published applications were mapped and are presented in the sheet titled 'Search Results - Analysis.' For this purpose, excerpts from the claimed matter in the identified results were quoted against each phrase or key feature of the product. Further, the text of specific phrases and/or sentences in the excerpts was color coded to illustrate overlap with the corresponding portion of the key feature.
6. Bibliographic details (patent/publication number, title, abstract, first independent claim, assignee(s), inventors(s), IPC codes, publication date, filing date, legal status, and family

members) for these relevant results are presented in the sheet titled 'Search Results - Bibliography.'

#### SEARCH ASSUMPTIONS

1. All searches were conducted for live patents in USPTO and EPO in the following patent databases: Delphion, USPTO, and Espacenet. For this purpose, the maintenance status restriction 'No E code' in Delphion was used to limit the search results. In addition, legal status for each identified relevant result was obtained through USPTO and 'Register Plus' of EPO. This information is presented with the bibliographic information.
2. USPTO and Espacenet databases have certain search restrictions (e.g., advanced search on Espacenet is restricted to title and abstract only). Therefore, the results from these databases will only be used to validate the search results obtained from Delphion.
3. The scope of the search was limited to US and European jurisdictions only.
4. Only English language documents were analyzed.
5. The analysis for patent publications was based on their title, abstract, and claims.
6. All the search results correspond to the date of conducting the searches.

Any other database or assumptions relevant to the scope of the project will be presented here.

#### KEY FEATURES

The product key features used for creating the analysis chart have been presented below for reference:

S. No.	Technology Key Features	Definitions
1	<b>Feedstock</b>	<i>The feedstock used for the process consists of a 'nonfood, lignocellulosic, and solid biomass. Examples of lignin material can include agricultural lignin, wood lignin, lignin derived from municipal waste, Kraft lignin, organosolve lignin, and combinations thereof.</i>
2	<b>Process</b>	<i>The process used is catalytic or catalyst based cracking or pyrolysis or liquefaction or deoxygenation or upgradation of the feedstock for preparation of biofuels.</i>
<b>&lt;&lt;Any other key features of the clients'</b>		This section will list the key features of the technology and their definitions to establish the scope and understanding of the project request.

product will be listed  
here>>

## KEY STRINGS

The table given below indicates the search strings and the number of results for each of the given databases and the search logic:

S. No.	Database	Search Strings	No. of Results
<b>Biomass + Biofuels</b>			
1	Delphion	((biomass or bio-mass or "bio mass") and (biocrude* or bio-crude* or "bio crude" or bio-oil* or "bio oil" or biooil* or bio-liquid* or "bio liquid" or bioliquid* or "pyrolysis oil" or "third generation biofuel" or "third-generation biofuel" or biofuel* or bio-fuel* or "advanced fuel*" or fuel or gas))	17,452
<b>Biomass + Biofuels + Catalytic Cracking</b>			
2	<a href="#">Delphion</a>	((biomass or bio-mass or "bio mass") and (biocrude* or bio-crude* or "bio crude" or bio-oil* or "bio oil" or biooil* or bio-liquid* or "bio liquid" or bioliquid* or "pyrolysis oil" or "third generation biofuel" or "third-generation biofuel" or biofuel* or bio-fuel* or "advanced fuel*" or fuel or gas) and (catalytic or catalyst) and (crack* or pyrolysis or liquef* or upgrad* or deoxygenat*))	2,086
<b>Biomass + Biofuels + Catalytic Cracking</b>			
11	USPTO	spec/(biomass or bio-mass) and (catalyst or catalytic) and (biofuel or biooil or biocrude) and	39

		(crack* or pyrolysis) <in> (issued patents and published applications)	
12	USPTO	Spec/(biomass) and (lignocellulose or cellulosic or wood or cellulose) and (fuel or biofuel or biooil or gas or bioliquid) and (catalyst or catalytic) and (cracking or pyrolysis) <in> (issued patents and published applications)	629
13	Espacenet	Title or Abstract/ (biomass) and (biofuel or biocrude or biooil or bioliquid or fuel) and (catalyst or catalytic) and (cracking or pyrolysis)	17
14		<<Any other key strings and combinations used will be listed here>>	

## SEARCH RESULTS – BIBLIOGRAPHY

Fam. No.	Patent/Publication No.	Title	Abstract	Assigned (X)	Inventor (s)	Publication Date	Priority Date	Application date	Application No.	IPC Codes	Family	Legal Status
1	EP1970425A1	Improved process for	A catalytic process is	BIOECON INTERNAT	O'CONNOR PAUL J	17-09-2006	20-02-2007	20-02-2007	EP2007102737A	C10G000100	EP1852490A1	2008-09-17 AK DESIGNATED CONTRACTING STATES + EP
1	EP1852490A1	Pretreatment of particulate	Disclosed is a	BIOECON INTERNAT	O'CONNOR PAUL J	07-11-2007	05-05-2008	05-05-2006	EP2006113545A	C10B005300	EP1852490A1	2008-09-10 17Q FIRST EXAMINATION REPORT + 2008-08-
1	EP1852491A1	Mild pyrolysis of carbon-	Disclosed is a	BIOECON INTERNAT	O'CONNOR PAUL J	07-11-2007	05-05-2006	05-05-2006	EP2006113567A	C10B005300	EP1852490A1	2008-12-03 18D DEEMED TO BE WITHDRAWN + 2008-05-08
2	US2007006077A2	Method of upgrading	This method of	TOKYO ELECTRIC	SUYAMA CHIKO J	29-03-2007	2002-08-12   2002-11-	22-08-2005	US2005523749A	B08B000300	JP2005179379A_	2006-02-21 AS ASSIGNMENT JSC CORPORATION, JAPAN
2	US2006112638A1	Method of modifying	This method of	TOKYO ELECTRIC	SUYAMA CHIKO J	01-06-2006	2002-08-09   2002-11-	22-08-2005	US2005523749A	B08B000300	JP2005179379A_	2006-02-21 AS ASSIGNMENT TOKYO ELECTRIC POWER
2	US2465844B2	Method of upgrading	This method of	JGC CORP TOKYO	SUYAMA CHIKO J	16-12-2008	2002-08-12   2002-11-	22-08-2005	US2005523749A	B08B000300	JP2005179379A_	2006-02-21 AS ASSIGNMENT JSC CORPORATION, JAPAN
3	US7262389B1	Flash-pyrolysis in a	A process for the	TNO	BREM GERRIT	10-04-2007	16-09-2002	11-11-1999	US1999129785A	C07C000400	AT2571707	NA
3	EP1235888B1	Flash-pyrolysis in a	The invention	NL ORGANISA	BREM GERRIT	02-01-2004	11-11-1999	11-11-1999	EP1999974168A	B01D004824	AT2571707	2008-10-31 PGFP POSTGRANT: ANNUAL FEES PAID TO NATIONAL
3	EP1235885A1	Flash-pyrolysis in a	The invention	TNO	BREM GERRIT	04-09-2002	11-11-1999	11-11-1999	EP1999974168A	B01D004824	AT2571707	2008-10-31 PGFP POSTGRANT: ANNUAL FEES PAID TO NATIONAL

## DETAILED ANALYSIS

Freedom-to-Operate Search Report - Biofuels <<Back to Contents>>

Detailed Analysis

The following analysis chart represents an overlap between the product key features and the claimed matter in the relevant results\*.

\*The results are presented irrespective of any specific preference or priority.

Product Key Features	EP1970425A1 - Improved process for converting carbon-based energy carrier material	US20070068077A2 - Method of upgrading biomass, upgraded biomass, biomass-water slurry and method of producing same, upgraded biomass gas, and method of gasifying biomass	US7202389B1 - Flash-pyrolysis in a cyclone	US5961786A - Apparatus for a circulating bed transport fast pyrolysis reactor system
<b>Feedstock - nonfood, lignocellulosic, and solid biomass</b>	<b>Claim 1:</b> A process for converting a biomass into a blending component for a petroleum-derived fuel comprising: (a) extracting a lignin-containing fraction in a reaction medium from the biomass to provide a lignin feed material; ... <b>7.</b> The process of claim 1 wherein the biomass is a lignocellulosic biomass.	<b>Claim 1:</b> A process for converting lignin into reformulated hydrocarbon gasoline, comprising the steps of: (a) providing a lignin material; ... <b>Claim 2:</b> The process of claim 1, wherein the lignin material is selected from the group consisting of a Kraft lignin, an organosolv lignin, a lignin derived from agricultural products or waste, a lignin derived from municipal waste, and combinations thereof.	<b>Claim 1:</b> A process for conversion of a lignin material to a bio-fuel, comprising: (a) subjecting the lignin material to a base catalyzed depolymerization reaction to produce a partially depolymerized lignin; ...	<b>Claim 3:</b> The process of claim 1 wherein the oxygenated hydrocarbon compound is derived from a biomass material. <b>Claim 24:</b> The process of any one of the preceding claims wherein the oxygenated hydrocarbon compounds are obtained from the liquefaction of solid biomass.
<b>Process - cracking or pyrolysis or liquefaction or deoxygenation or upgradation</b>	<b>Claim 23:</b> The process of claim 1 wherein hydroprocessing of the first composition is further defined as hydrodeoxygenation and hydrocracking of the first composition.	<b>Claim 1:</b> A process for converting lignin into reformulated hydrocarbon gasoline, comprising the steps of: (a) providing a lignin material; (b) subjecting the lignin material to a base-catalyzed depolymerization reaction in the presence of a supercritical alcohol as a reaction medium, to thereby produce a depolymerized lignin product; and (c) subjecting the depolymerized lignin product to a hydroprocessing reaction to produce a reformulated hydrocarbon gasoline product.	<b>Claim 1:</b> A process for conversion of a lignin material to a bio-fuel, comprising: (a) subjecting the lignin material to a base catalyzed depolymerization reaction to produce a partially depolymerized lignin; (b) subjecting the partially depolymerized lignin to a stabilization/partial hydrodeoxygenation reaction to form a partially hydrodeoxygenated product; (c) reacting the product of step (b) in a hydroprocessing step to form a bio-fuel.	<b>Claim 1:</b> A process for fluid catalytic cracking of oxygenated hydrocarbon compounds, comprising the step of contacting a reaction feed comprising an oxygenated hydrocarbon compound with a fluid cracking catalyst material during a contact time of less than 3 seconds, at a temperature in the range of 500 to 700 deg. C.

Content Page Intro Key Features Key Strings Search Results - Bibliography Search Results - Analysis Disclaimer

## CLAIM REFERENCE MAPPING WITH INVENTION KEY FEATURES

Compete Patent Matrix	Claim Key		Key Items														Creating new office features	Multiple office features based on selected base analysis of	Utilizing HTTP transaction with other office tools	Tracking user interactions with other office tools	Claims of features distributed to parallel process configurations			
	Observing input data set of office user data from data providers	Providing a Device/ Internal features from user data to handling priority of processes	Host receiving internal features from data provided/ generated/ operation	Host system having Collection/ Facility, network, presentation facility, operation	Client/Server activity enabled by observing input data	Deriving data sets using an internal network	Performing integrity checks on the data received from a file or a file in a file	Performing integrity checks on the data received from a file or a file	Performing integrity checks on the data received from a file or a file	Performing integrity checks on the data received from a file or a file	Performing integrity checks on the data received from a file or a file	Performing integrity checks on the data received from a file or a file	Performing integrity checks on the data received from a file or a file	Performing integrity checks on the data received from a file or a file	Performing integrity checks on the data received from a file or a file	Performing integrity checks on the data received from a file or a file						Performing integrity checks on the data received from a file or a file	Performing integrity checks on the data received from a file or a file	
Observing input data set of office user data from data providers	Claim 1	System Claim 34	Claim 1, System Claim 34																	Claim 28	Claim 4, System Claim 37			
Providing a Device/ Internal features from user data to handling priority of processes		Claim 2	Claim 2																					
Host receiving internal features from data provided/ generated/ operation			Claim 1																					
Host system having Collection/ Facility, network, presentation facility, operation																								
Client/Server activity enabled by observing input																								
Deriving data sets using an internal network																								
Performing integrity checks on the data received from a file or a file																								

Client/Server Analysis - 8/17

## CLAIM THEME ANALYSIS

A	B	C	D
S.No	Claim Theme	VIDS-0003-PO3_040100_Specification	VIDS-0003-PO3_040901_Specification
1	<p><b>Video greeting card with self-published video and advertising</b></p> <p>A method, comprising:</p> <p>Providing a web-based user interface wherein a user can develop a greeting in video format to form a video greeting card; Facilitating in the user interface the association of user-generated video content with the video greeting card; and Automatically associating an advertisement with the video greeting card, wherein the advertisement is intended to be viewed by a recipient of the video greeting card.</p>	<p>First two clauses of this claim theme have been substantiated well in the specifications. However, the last clause of automatically associating an advertisement with the video greeting card lacks enablement in the specifications.</p> <p><b>Options and Recommendations:</b> As the third clause is not supported in the specifications, we suggest that "Automatically associating an advertisement with the video greeting card" clause can be replaced by "Providing a delivery facility to automatically deliver the video greeting card to a second user." However, the suggested amendment is not of the same scope, but it covers the "Video Greeting Card" embodiment. Further, the recommended clause has been supported in the specifications. Further, dependent claims regarding method of delivery, i.e. email, instant messaging, and the like can be added.</p>	<p>First two clauses of this claim theme have been substantiated well in the specifications. However, the last clause of automatically associating an advertisement with the video greeting card lacks enablement in the specifications.</p> <p><b>Options and Recommendations:</b> As the third clause is not supported in the specifications, we suggest that "Automatically associating an advertisement with the video greeting card" clause can be replaced by "Providing a delivery facility to automatically deliver the video greeting card to a second user." However, the suggested amendment is not of the same scope, but it covers the "Video Greeting Card" embodiment. Further, the recommended clause has been supported in the specifications. Further, dependent claims regarding method of delivery, i.e. email, instant messaging, and the like can be added.</p>
2	<p><b>Open web video collection with automated self-published content</b></p> <p>A method, comprising:</p> <p>Providing a web-based facility for storing and presenting a collection of video content; Facilitating publication by a user of video content to the web-based facility; and Automatically updating the video collection to include the user-published video content.</p>	<p>This claim theme is supported in the specifications.</p>	<p>This claim theme is supported in the specifications.</p>
3	<p><b>Interface to automatically upload video from a PC/local device to web and associate with advertising</b></p> <p>A method, comprising:</p> <p>Providing a user interface that allows an end user to automatically upload video content</p>	<p>Clauses 2 and 3 have not been supported in the specifications. Automatic association of an advertisement is not disclosed in the specifications.</p>	<p>Clauses 2 and 3 have not been supported in the specifications. Automatic association of an advertisement is not disclosed in the specifications.</p>

## PROJECT ORGANIZATION

Novocus proposes the following protocol to facilitate smooth and timely completion of the project:

- A single person contact, appointed on behalf of Novocus, will communicate with the Client and will be responsible for the deliverables.
- A Client-appointed nominee will interact with Novocus for all project-specific discussions.
- The project will be considered complete when it is concluded and delivered by Novocus to the Client's satisfaction, along with all supporting documentation.

We request you to please contact the undersigned in case of any queries related to innovation maps and spill-overs or Intellectual Property in general.

Contact Details of Novocus Legal LLP



- **Contact Person:** Ruchica Kumar
- **Contact Phone:** +91-9711546163
- **Contact Email:** [rkumar@novocuslegal.com](mailto:rkumar@novocuslegal.com)
- **Contact Skype:** novocus.legal

## DISCLAIMER

Entire contents ©2015 Novocus Legal LLP. All rights reserved. Reproduction of this publication in any form without prior written permission is forbidden. The information contained herein has been obtained from data sources believed to be reliable. Novocus Legal LLP disclaims all warranties as to the accuracy, completeness or adequacy of such information. The search results identified are only up to the date of this document. No opinion, unless clearly stated is expressed or implied other than the comments stated herein. Novocus Legal LLP is not a law firm and does not provide any legal advice or legal opinion. The examples herein are only for illustrative purposes and should not be interpreted for actual representation of a landscape document in the stated exemplary technology domains. Reproduction of this publication in any form without prior written permission is forbidden. The information contained herein has been obtained from data sources believed to be reliable.