

Señor Jefe de la
DIRECCIÓN DE NUEVAS CREACIONES
Superintendencia de Industria y Comercio
E. S. D.

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



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Act. 329 CTOINFORMACION Folios: 9

Tramite 011 - Evento 379 - Actuación

Re: Expediente: 14 004783
Fase Nacional: Patente Internacional
No.PCT/GB2012/052726
Titulo: Proceso para la produccion de alcoholes
grasos
Solicitante: Davy Process Technology Limited
Londres, Reino Unido

Obrando como apoderado del solicitante en el proceso de la referencia,
respetuosamente

MANIFIESTO

Adjunto a la presente copa del Reporte de Examen Preliminar correspondiente a la
Patente Internacional de la referencia.

De usted atentamente,

CAMILO H. ALVAREZ BERNATE
T.P.A. No. 20,343
C.C. 19,219,009 de Bogotá

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PATENT COOPERATION TREATY

PCT/GB2012/052726

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION CONCERNING
TRANSMITTAL OF COPY OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OF THE PATENT COOPERATION
TREATY)
(PCT Rule 44bis.1(c))

To:

SMAGGASGALE, Gillian Helen
WP Thompson
55 Drury Lane
London WC2B 5SQ
ROYAUME-UNI

Date of mailing (day/month/year) 30 May 2014 (30.05.2014)		
Applicant's or agent's file reference GHSP514412WO		IMPORTANT NOTICE
International application No. PCT/GB2012/052726	International filing date (day/month/year) 01 November 2012 (01.11.2012)	Priority date (day/month/year) 17 November 2011 (17.11.2011)
Applicant JOHNSON MATTHEY DAVY TECHNOLOGIES LIMITED		

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)
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The International Bureau of WIPO 34, chemin des Colombettes 1211 Genève 20, Switzerland	Authorized officer Athina Nickitas-Etienne
Facsimile No. +41 22 338 82 70	e-mail: pt04.pct@wipo.int

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference GHSP514412WO	FOR FURTHER ACTION		See item 4 below
International application No. PCT/GB2012/052726	International filing date (day/month/year) 01 November 2012 (01.11.2012)	Priority date (day/month/year) 17 November 2011 (17.11.2011)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant JOHNSON MATTHEY DAVY TECHNOLOGIES LIMITED			

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																										
2.	This REPORT consists of a total of 7 sheets, including this cover sheet. In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																										
3.	This report contains indications relating to the following items: <table><tr><td>☒</td><td>Box No. I</td><td>Basis of the report</td></tr><tr><td>☐</td><td>Box No. II</td><td>Priority</td></tr><tr><td>☐</td><td>Box No. III</td><td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td></tr><tr><td>☐</td><td>Box No. IV</td><td>Lack of unity of invention</td></tr><tr><td>☒</td><td>Box No. V</td><td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td></tr><tr><td>☐</td><td>Box No. VI</td><td>Certain documents cited</td></tr><tr><td>☒</td><td>Box No. VII</td><td>Certain defects in the international application</td></tr><tr><td>☒</td><td>Box No. VIII</td><td>Certain observations on the international application</td></tr></table>			☒	Box No. I	Basis of the report	☐	Box No. II	Priority	☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	☐	Box No. IV	Lack of unity of invention	☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	☐	Box No. VI	Certain documents cited	☒	Box No. VII	Certain defects in the international application	☒	Box No. VIII	Certain observations on the international application
☒	Box No. I	Basis of the report																									
☐	Box No. II	Priority																									
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability																									
☐	Box No. IV	Lack of unity of invention																									
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																									
☐	Box No. VI	Certain documents cited																									
☒	Box No. VII	Certain defects in the international application																									
☒	Box No. VIII	Certain observations on the international application																									
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																										

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland		Date of issuance of this report 20 May 2014 (20.05.2014)
Facsimile No. +41 22 338 82 70		Authorized officer Athina Nickitas-Etienne e-mail: pt04.pct@wipo.int

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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No. PCT/GB2012/052726	International filing date (day/month/year) 01.11.2012	Priority date (day/month/year) 17.11.2011
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International Patent Classification (IPC) or both national classification and IPC
INV. C07C29/149 C07C31/125 C07C67/03 C07C67/08

Applicant
DAVY PROCESS TECHNOLOGY LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:  European Patent Office P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Fax: +31 70 340 - 3016	Date of completion of this opinion see form PCT/ISA/210	Authorized Officer Mooren, Nicolai Telephone No. +31 70 340-8054
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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/GB2012/052726

Box No. I	Basis of the opinion
1.	With regard to the language , this opinion has been established on the basis of: ☒ the international application in the language in which it was filed ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2.	☐ This opinion has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3.	With regard to any nucleotide and/or amino acid sequence disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished: a. (means) ☐ on paper ☐ in electronic form b. (time) ☐ in the international application as filed ☐ together with the international application in electronic form ☐ subsequently to this Authority for the purposes of search
4.	☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5.	Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement		
Novelty (N)	Yes: Claims	<u>1-22</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	<u>1-22</u>
	No: Claims	
Industrial applicability (IA)	Yes: Claims	<u>1-22</u>
	No: Claims	
2. Citations and explanations		
	<u>see separate sheet</u>	

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2012/052726

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

V.1 Documents

Reference is made to the following document:

D1 DE 10 2007 033636 A1 (COGNIS IP MAN GMBH [DE]) 22 January 2009 (2009-01-22)

V.2 Novelty (Art. 33(2) PCT)

D1 discloses a process for producing a fatty alcohol wherein a fatty alcohol stream which has been prepared by hydrogenation ("Hydrierung") of a fatty acid lower alkyl ester ("Fettsäurealkylester") and which contains an amount of unconverted fatty acid lower alkyl ester is subjected to transesterification ("Umesterung") in the presence of a solid catalyst ("heterogener Umesterungskatalysator") so that the fatty acid lower alkyl ester is converted into a wax ester ("Wachsester") and a lower alkanol ("niederer Alkylalkohol") (see par. 2 and 9-13 of D1; this corresponds to step (d) according to claim 1 of the present application). The wax ester is separated from the reaction mixture by distillation (see par. 40 of D1; this corresponds to step (e) according to claim 1 of the present application) and subsequently returned to the hydrogenation of the fatty acid lower alkyl ester (see par. 12 and 40 of D1).

The process according to the present application differs from the process described in D1 in that the steps for preparing the fatty alcohol stream by hydrogenation are specified (steps (a)-(c) according to claim 1), in that the wax ester is passed to a second hydrogenation zone wherein it is reverted in the liquid phase to the fatty alcohol (step (f) according to claim 1), and in that the fatty alcohol is returned to the separation step (e) (step (g) according to claim 1).

The subject-matter of claims 1-22 is therefore novel over the retrieved prior art.

V.3 Inventive Step (Art. 33(3) PCT)

D1 is considered to be the prior art closest to the subject-matter of claims 1-22. As described above, the process according to claim 1 differs from the disclosure of D1 in steps (a)-(c), (f) and (g).

No technical effect is shown to be associated with these differences.

The problem to be solved is thus the provision of an alternative process for the production of fatty alcohols by hydrogenation of lower alkyl fatty acid esters.

The retrieved prior art does not suggest to the skilled person to solve this problem by performing steps (a)-(c), (f) and (g) as specified in claim 1. In particular, D1 does not indicate that the wax ester could be passed on to a second hydrogenation zone where it is hydrogenated in the liquid phase instead of being returned to the first hydrogenation zone, and that the fatty alcohol obtained in the second hydrogenation could be returned to the separation step (e). The subject-matter of claims 1-22 thus comprises an inventive step over the retrieved prior art.

V.4 Industrial Applicability (Art. 33(4) PCT)

The subject-matter of claims 1-22 is considered to be industrially applicable.

Re Item VII

Certain defects in the international application

VII.1 The units "psig" and "psia" which are employed in claim 17, p. 14, par. 3 of the description and in the examples of the present application are not additionally expressed in terms of the units stipulated by R. 10.1(a) PCT.

VII.2 Contrary to the requirements of R. 5.1(a)(ii) PCT, the relevant background art disclosed in D1 is not mentioned in the description, nor is this document identified therein.

Re Item VIII

Certain observations on the international application

VIII.1 The terms "fatty alcohol" and "fatty acid" as used in the claims do not have a clearly defined meaning in the art (cf. the IUPAC "Goldbook" where it is pointed out that "by extension, the term ["fatty acids"] is sometimes used to embrace all acyclic aliphatic carboxylic acids"; see <http://goldbook.iupac.org/F02330.html>). The fact that the employed alcohols and acids are not defined in the claims with the more precise definitions which are given on p. 7, par. 1 and 3 of the description renders the claims unclear (Art. 6 PCT).

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

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VIII.2 The terms "lower alkyl" and "lower alkanol" as used in the claims are relative terms which have no well-recognised meaning in the art and leave the reader in doubt as to the meaning of the technical features to which they refer, thereby rendering the definition of the subject-matter of the claims unclear (Art. 6 PCT; see PCT-Guidelines 5.34).

VIII.3 The term "about" leaves the reader in doubt as to the definition of the subject-matter of the claims wherein it is employed, thereby rendering these claims unclear (Art. 6 PCT; see PCT-Guidelines 5.38).

VIII.4 It is noted that some member states might object to the formulation "incorporated herein by reference" on p. 1, last line, and in further passages of the description during the regional phase.