

Señor Director
DIRECCION DE NUEVAS CREACIONES
Superintendencia de Industria y Comercio
E. S. D.

Referencia : Expediente No. 16-113292
Asunto : Solicitud de patente para GLUCÓSIDO DE ÁCIDO ORGÁNICO
CONTENIDO EN GRANOS DE CAFÉ
Solicitante : SUNTORY HOLDINGS LIMITED

RESPUESTA A EXAMEN PRELIMINAR

ANDRÉS RINCÓN USCÁTEGUI, identificado como aparece al pie de mi firma, en mi condición de apoderado del solicitante de la patente de la referencia, doy respuesta al Oficio 8207, notificado por fijación en lista el 28 de junio de 2016.

I. MODIFICACIONES AL PLIEGO REIVINDICATORIO

Con el fin de atender las observaciones realizadas por el examinador de manera preliminar al examen de patentabilidad, el solicitante decide aportar un nuevo capítulo reivindicatorio conformado por 6 reivindicaciones.

A pesar de eliminar materia del pliego reivindicatorio originalmente presentado, mi representada no renuncia a la protección que pueda obtener sobre dicha materia y se reserva el derecho de presentar una solicitud divisional que la contenga durante el trámite de la presente solicitud.

II. EN CUANTO A LA OBJECCIÓN DEL CAPÍTULO I o II

Se presenta una copia del IPRP Capítulo I expedido durante el trámite de la fase internacional de la correspondiente solicitud PCT, junto con una traducción al español del capítulo de reivindicaciones modificado de acuerdo al artículo 19 del PCT.

III. EN CUANTO A LAS OBJECIONES A LA DESCRIPCIÓN

Se presenta una nueva reproducción nítida de las figuras 4 a 6, que no incluyen ampliación de materia.

IV. EN CUANTO A LAS OBJECIONES A LAS REIVINDICACIONES RELATIVAS A UN USO

Para superar la objeción del examinador a este respecto, mi representada ha eliminado la reivindicación 7 en el nuevo capítulo reivindicatorio modificado que se presenta junto con este memorial.

“EXCELENCIA LEGAL EN UN MUNDO SIN FRONTERAS”

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V. EN CUANTO A LAS OBJECIONES DE SUPUESTA FALTA DE CLARIDAD

1. El nuevo capítulo reivindicatorio modificado contiene una numeración ordenada y está organizado adecuadamente conforme la exigencia del examinador.

2. Con respecto a las objeciones de las reivindicaciones 4 a 8, mi representada desea poner de presente lo siguiente:

2.1. La reivindicación 4 (reivindicación modificada 1) no hace referencia a una composición sino a un componente.

2.2. La reivindicación 5 se modifica para que describa claramente 3-metil-2-butanoil- β -gentiobiósido o 3-metil-butanoil-gentiobiósido y 3-metil-butanoil-sacarosa como componentes con cantidades específicas en una composición (reivindicación modificada 2). La modificación se basa en la anterior reivindicación 6, la cual se eliminó.

2.3. La objeción a la reivindicación modificada 3 también se supera, la cual hace referencia a la reivindicación modificada 2.

3. El examinador sugiere introducir etapas y condiciones lógicas en las reivindicaciones 9 a la 11; sin embargo, al modificar la reivindicación 9, se introduce una etapa para cortar un componente que libera un componente de aroma (reivindicación modificada 4).

4. La reivindicación 10 se modifica para introducir una etapa para la cuantificación de un componente, y también una etapa para la comparación de una cantidad del compuesto con la de un control (reivindicación modificada 5).

5. La reivindicación 11 se modifica para introducir una etapa para hacer referencia a un valor estándar establecido para cada variedad de café (reivindicación modificada 6).

6. Finalmente, el examinador afirma que las reivindicaciones 9 a 11 incluyen una etapa de detección como una característica esencial y que por tanto tienen que permanecer unidos. Sin embargo, la reivindicación modificada 4 no incluye una etapa de detección, por consiguiente la afirmación del examinador es errónea. Además, las reivindicaciones modificadas 4 y 5 son claramente diferentes una de la otra.

Mi representada considera que de esta forma se han superado todas las objeciones formuladas en el Oficio No. 8207.

VI. EN CUANTO AL PAGO DE TASAS

Teniendo en cuenta que el capítulo reivindicatorio modificado que se presenta junto con este memorial no excede de 10 reivindicaciones, no resulta procedente la exigencia del examinador en cuanto a pagar una tasa adicional por este concepto.

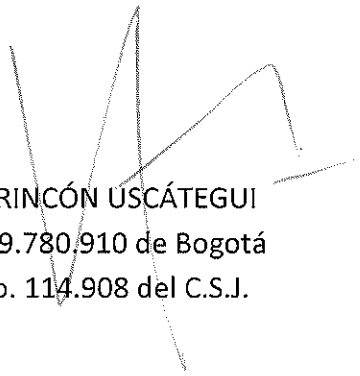
VII. PETICIÓN

Teniendo en cuenta que la presente solicitud cumple con los requisitos de los artículos 26 y 27 de la Decisión 486 de 2000 y considerando que se ha dado respuesta a las observaciones de la Dirección de Nuevas Creaciones con respecto a otros aspectos que tienen que ver con la patentabilidad de la invención, solicito a su Despacho continuar con el trámite administrativo correspondiente.

VIII. ANEXOS

1. Nuevo capítulo reivindicatorio conformado por 6 reivindicaciones
2. Copia del IPRP Capítulo I junto con una traducción al español del capítulo de reivindicaciones modificado de acuerdo al artículo 19 del PCT
3. Figuras 4 a 6

Señor Director,



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COLO-17511-0841-0011-7
SCT\SCT\ID-290170\WPC17511
No. M-2016-290170\SCT

REIVINDICACIONES MODIFICADAS

1. Un compuesto seleccionado entre 3-metil-2-butenoil- β -gentiobiosida o 3-metil-butenoil- β -gentiobiosida.
2. Una composición que comprende 0,00001 – 0,1 % en peso del compuesto conforme a la reivindicación 1 y 0,00001 – 0,1 % en peso de 3-metil-butenoil-sucrosida.
3. La composición conforme a la reivindicación 2 que se mezcla con los granos de café o los extractos obtenidos de los granos de café.
4. Un método para mejorar el sabor de los extractos obtenidos de los granos de café, el cual comprende:
 - mezclar los granos de café o los extractos obtenidos de los granos de café con el compuesto conforme a la reivindicación 1 o la composición conforme a las reivindicaciones 2 o 3, y
 - cortar el enlace entre un componente aromático y un grupo azúcar en el compuesto, liberando de esta forma el componente aromático.
5. Un método para evaluar la calidad de los granos de café o de los extractos obtenidos de los granos de café, el cual comprende:
 - detectar un compuesto conforme a la reivindicación 1 o 3-metil-butenoil-sucrosida en los granos de café o los extractos obtenidos de los granos de café.
 - cuantificar el compuesto, y
 - comparar el valor cuantificado con el de un control para evaluar la calidad de los granos de café o de los extractos.
6. Un método para identificar o estimar una variedad de café, el cual comprende:
 - detectar un compuesto conforme a la reivindicación 1 o 3-metil-butenoil-

sucrosida en granos de café o extractos obtenidos de los granos de café, y
hacer referencia a un conjunto de valores estándar para cada variedad
para identificar o estimar la variedad de café.

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 FA0008-14151	FOR FURTHER ACTION		See item 4 below
International application No. PCT/JP2014/076522	International filing date (<i>day/month/year</i>) 03 October 2014 (03.10.2014)	Priority date (<i>day/month/year</i>) 03 October 2013 (03.10.2013)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant SUNTORY HOLDINGS 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 9 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:

☒

Box No. I

☐

Box No. II

☐

Box No. III

☐

Box No. IV

☒

Box No. V☐☐☒

Basis of the report

Priority

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

Lack of unity of invention

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Certain documents cited

Certain defects in the international application

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).

		Date of issuance of this report 05 April 2016 (05.04.2016)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland		Authorized officer Yukari Nakamura
Facsimile No. +41 22 338 82 70		e-mail: pt07.pct@wipo.int

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

TRANSLATION
PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference FA0008-14151		Date of mailing (day/month/year) 28.10.2014
FOR FURTHER ACTION See paragraph 2 below		
International application No. PCT/JP2014/076522	International filing date (day/month/year) 03.10.2014	Priority date (day/month/year) 03.10.2013
International Patent Classification (IPC) or both national classification and IPC C07H15/04 (2006.01) i, A23F5/10 (2006.01) i, A23L1/221 (2006.01) i		
Applicant SUNTORY HOLDINGS 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 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
2. FURTHER ACTION		
If a demand for international preliminary examination is made, this opinion will 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/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2014/076522

Box No. I	Basis of this 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:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY		International application No. PCT/JP2014/076522
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)	Claims 4, 6-10	YES
	Claims 1-3, 5	NO
Inventive step (IS)	Claims 4, 9, 10	YES
	Claims 1-3, 5-8	NO
Industrial applicability (IA)	Claims 1-10	YES
	Claims	NO
2. Citations and explanations:		
Documents cited in the ISR Document 1: Chemistry & Biodiversity, 2012, vol. 9 (6), pages 1172 to 1187 Document 2: Chemical & Pharmaceutical Bulletin, 2009, vol. 57 (8), pages 853 to 859 Document 3: Carbohydrate Research, 1967, vol. 4 (1), pages 72 to 77 Document 4: Helvetica Chimica Acta, 2010, vol. 93 (4), pages 763 to 771 Document 5: Journal of Organic Chemistry, 1968, vol. 33 (4), pages 1559 to 1562 Document 6: Canadian Journal of Chemistry, 1975, vol. 53 (14), pages 2171 to 2177 Document 7: Organic Mass Spectrometry, 1978, vol. 13 (8), pages 477 to 482 Document 8: Carbohydrate Research, vol. 46 (2), 1976, pages 215 to 226 Document 9: JP 2001-524484 A Document 10: JP 2009-219488 A Document 11: JP 2004-081053 A Document 12: JP 2003-212782 A		

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

Novelty and Inventive Step

Document 1 (see page 1174, compounds 3-8) and document 2 (see page 854, everiastosite F(1)) disclose compounds corresponding to the invention as in claims 1-3.

Document 3 (page 76, four types of compounds in Table III), document 4 (page 764, compound 8), document 5 (page 1560, compound 13), document 6 (page 2172, compound 3), document 7 (page 478, compounds 10, 13-22), document 8 (page 217, compound 13, 13) and document 9 (page 158, fig. 13, compound 1) disclose compounds corresponding to the invention as in claims 1 and 2.

Moreover, it is exceedingly likely that the compounds disclosed in abovementioned documents 1-9 include other compounds and therefore said compounds cannot be distinguished from the invention as in claim 5.

As a result, either the invention as in claims 1-3 and 5 is identical to the inventions disclosed in documents 1-9, or a person skilled in the art could easily conceive of the same based on the inventions disclosed in documents 1-9.

The examples in documents 10-12 indicate that a coffee bean extract was prepared, and it is found that the aforementioned extract is a well-known substance to persons skilled in the art. In addition, it is extremely likely that the aforementioned extract contains the glycoside compounds of the invention of the present application. Therefore, the abovementioned extract cannot be distinguished as a product from the composition as in claim 5.

Moreover, by referring to the disclosures of

WRITTEN OPINION OF THE
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PCT/JP2014/076522

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

documents 10-12, a person skilled in the art could easily use the abovementioned extract by adding the same to a beverage such as coffee.

As a result, either the invention as in claim 5 is identical to the inventions disclosed in documents 10-12, or a person skilled in the art could easily conceive of the invention as in claims 5-8 based on the inventions disclosed in documents 10-12.

The invention as in claims 4, 9, and 10 is not disclosed in documents 1-12 and cannot be considered obvious by persons skilled in the art. Therefore, the invention as in claims 4, 9, and 10 is novel and involves an inventive step in relation to the aforementioned documents.

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:

Item 1

The language of claim 1 is unclear. Claim 1 uses the expression "C₁₋₆ alkenyl," but in terms of chemical structure, the minimum number of carbon atoms in an alkenyl is 2, so an alkenyl with 1 carbon atom (C₁) is technically impossible.

Item 2

Claim 1 defines the "C₁₋₆ alkyl or C₁₋₆ alkenyl" with the expression "optionally substituted with a methyl or ethyl," but the aforementioned alkyl and alkenyl are groups that either contain or can contain an alkyl group such as a methyl or ethyl as a partial structure.

Therefore, assuming that the overall structure of the functional group is an alkyl or alkenyl, if any kind of functional group structure is present, the identification of whether or not said functional group corresponds to a methyl or ethyl substituent becomes ambiguous, so the language of the abovementioned claim cannot be considered clear. Claims 2 and 3 contain language similar to claim 1, so the same reasoning as above applies to those dependent claims.

Item 3

It is found that claim 1 is an invention relating to compounds having the chemical structure represented by formula 1.

Meanwhile, the chemical structures of the compounds as in the present invention are identified by specific examples of synthesis and analysis, and it can only be

WRITTEN OPINION OF THE
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Box No. VIII Certain observations on the international application

said that the presence of 3-methyl-2-butenoyl- β -gentiobioside and 3-methyl-butenoyl- β -gentiobioside, which were obtained from a coffee bean extract, is supported. Furthermore, there is no concrete description of the isolation and structural identification of any compounds of the present invention except the aforementioned two compounds.

Moreover, the other language of the description does not contain any explanation whatsoever concerning the specific extraction conditions for obtaining the compounds listed as R1-R7, which have a functional group other than OH, from coffee beans. Therefore, there is no language supporting the existence of compounds having such chemical structures in the coffee bean extract.

In addition, the description indicates that the abovementioned two compounds and a glycoside compound that does not correspond to formula 1 were obtained by extraction. However, the description does not present any concrete manufacturing conditions and the like that will enable the synthesis of the compounds listed in R1-R7, which have a functional group other than OH, from those compounds, even by referring to the chemical structures of these three types of compounds.

As a result, the invention as in claims 1-3 and 5-10 covers chemical structures beyond 3-methyl-2-butenoyl- β -gentiobioside and 3-methyl-butenoyl- β -gentiobioside. Therefore, it is not disclosed by the description in a manner sufficiently clear and complete for a person skilled in the art to carry out the invention. Moreover, said invention comprises inventions that exceed the scope that is supported by the description of the present application, and therefore the invention as in claims 1-3

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2014/076522

Box No. VIII Certain observations on the international application

and 5-10 is not fully supported by the description.

REIVINDICACIONES (Art. 19 PCT)

1. (Cancelada)
2. (Cancelada)
3. (Cancelada)
4. (Modificada) Un compuesto seleccionado entre 3-metil-2-butenoil- β -gentiobiosida o 3-metil-butanoil- β -gentiobiosida.
5. (Modificada) Una composición que comprende un compuesto conforme a la reivindicación 4.
6. (Modificada) La composición que comprende, además, 3-metil-butanoil-sucrosida.
7. (Modificada) La composición conforme a las reivindicaciones 5 o 6 para uso para mejorar el sabor de los granos de café o los extractos obtenidos de los granos de café.
8. (Modificada) La composición conforme a cualquiera de las reivindicaciones 5 a 7 que se mezcla con los granos de café o los extractos obtenidos de los granos de café.
9. (Modificada) Un método para mejorar el sabor de los extractos obtenidos de los granos de café, el cual comprende:

mezclar los granos de café o los extractos obtenidos de los granos de café con un compuesto conforme a la reivindicación 4 o una composición conforme a cualquiera de las reivindicaciones 5 a 8.
10. (Modificada) Un método para evaluar la calidad de los granos de café o de los extractos obtenidos de los granos de café, el cual comprende:

detectar un compuesto conforme a la reivindicación 4 o 3-metil-butanoil-sucrosida en los granos de café o los extractos obtenidos de los granos de café.
11. (Agregada) Un método para identificar o estimar una variedad de café, el cual comprende:

detectar un compuesto conforme a la reivindicación 4 o 3-metil-butanoil-sucrosida en granos de café o extractos obtenidos de los granos de café.

Figura 4

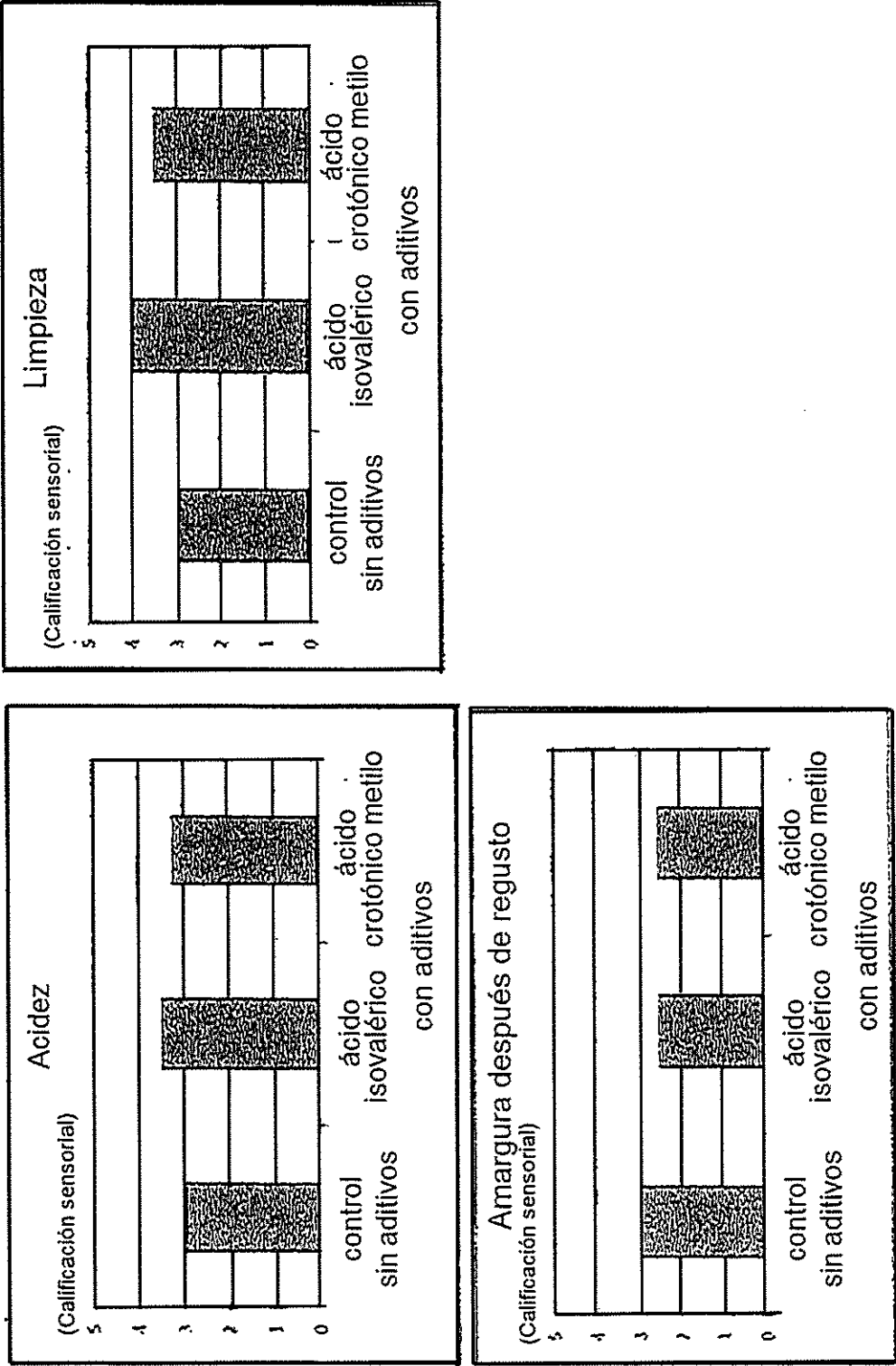


Figura 5

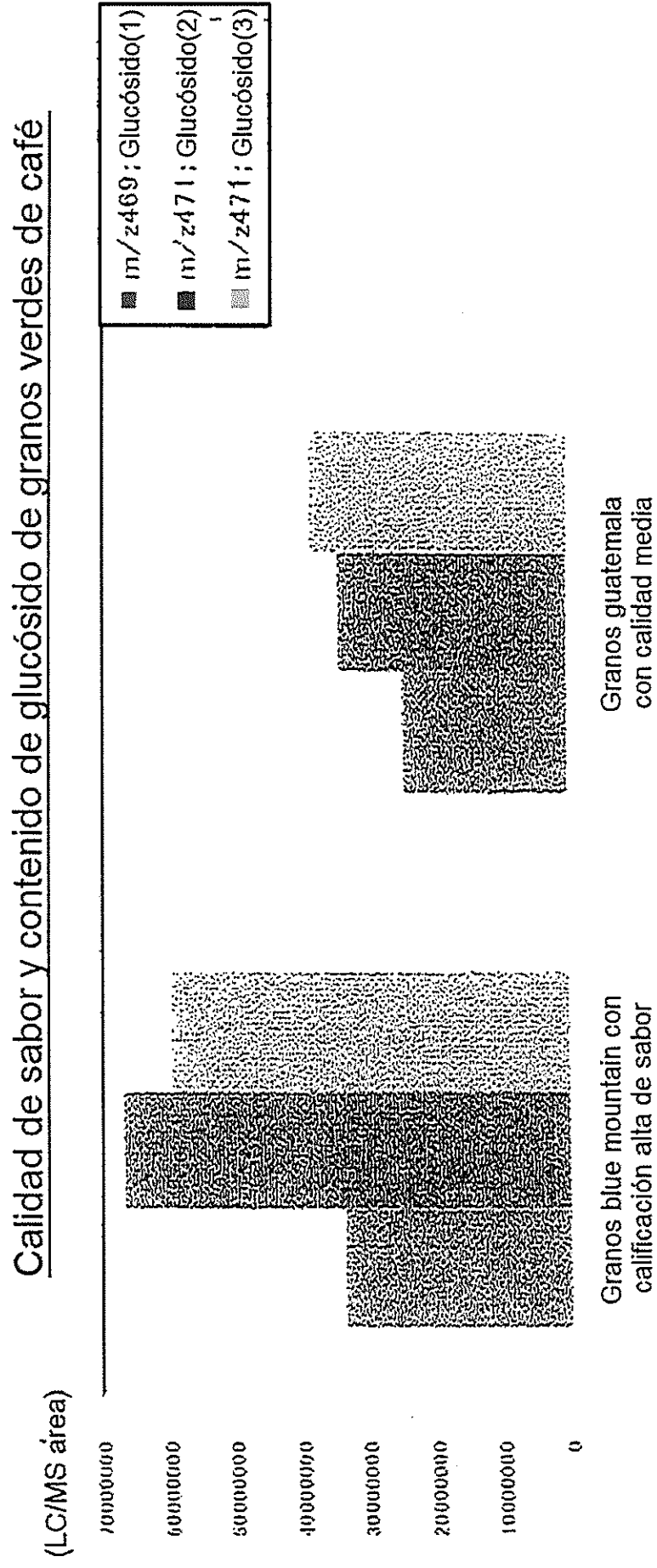
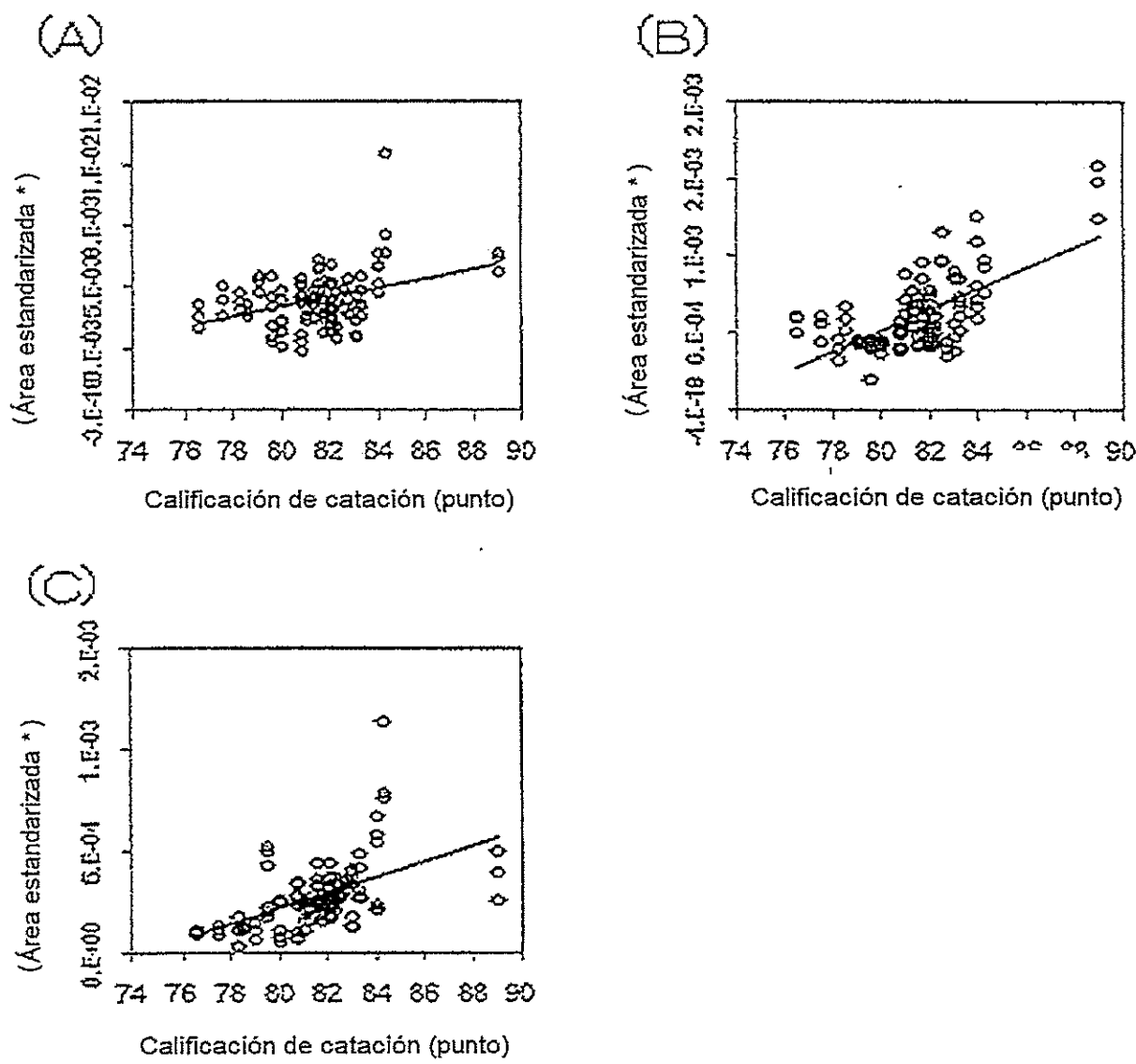


Figura 6



*Área estandarizada;
El área detectada fue estandarizada por la suma de iones totales