0

ANEXO

El documento que acredita la calidad de REPRESENTANTES LEGALES en l3ogotÆ de los doctores ALICIA LLOREDA yb GUSTAVO TAMAYO y/o IGNACIO SANTAMARIA yb ENRIQUE ALVAREZ para TODOS LOS ASUNTOS RELACIONADOS CON LA PROPIEDAD INDUSTRIAL de la sociedad peUcionaria, que faculta a cada uno de dichos abogados para actuar individualmente, se esta presentando con esta solicitud. En consecuencia, ruego a usted reconocer la personeria de cada uno de dichos Representantes Legales para actuar dentro del presente expediente, a fin de que cualquiera de ellos pueda intervenir en cualquier tiempo respecto de la solicitud en Øl contenida.

ICIA LLOREDA RICAURTE
T.P. No. 53.215

CERTIFICADO NOTARIAL (SOCIEDAD)

Suiza
Vevey (as

Hoy 41 do do 2004, compareclô a quien conozco y
do qui n me cOnsta quo firmO el anterior documento, y quiei debldamentejuramentado declaró y do quo Øies \)iceO(estcJeHe.
do NESTEC SA, Is
camp File nombrada on el documento quo antecede, una $ ciedad debidamente.organizada y existente confoi me a las byes do Suiza, domiciliada en la
cIuda de Vevey, Suiza legalmente constitulda
Para un perlodo do duraolôn que a0n no he
termir ado, qua ejerce su objeto social, conforme a
las le as de Suiza, qua el declarante estA autorizado
par di he Compat%la pars conferir este poder; quo at
J sello stampado por Øt at pie do tal poder, an nombre

/ y an rpresentación do la expresada Compa1a, es el ’ sello ficial de ella; y qua el objeto Para el cual se
confiere este instrumento estij comprendido dentro
del d la sociedad.
El s scrito Notario he vista los Estatutos de
incorj oraciôn firmados an Vevey, Suiza, con fecha
24’ icit i, y certifica quo de
confo idad con Is legislaclon do dicho Pals, la
anted in declaraciôn juramentada as prueba
sufici nte do quo los hechos sobre quo ella versa son cierto’ o verdaderos, do Jo cual da fe.

Public (Notario PUblico).

NOTARIAL. CERTIFICATE (CORPORATION)

Switzerland
Vevey {ss

On this lltlay of August , 2004, personally came
Paula NELSON

to me known, and known tome to be the person who signed the foregoing instrument who being by me duly sworn did depose and say that he/she is the Vice President,of NESTEC SA, the company named within, a Corporation organized and existing under the laws of the Switzerland, domiciled at the. City of Vevey, Switzerland legally constituted for a period of tenure not yet expired, which exercises Its corporate purposes according to the laws of Switzerland, that the deponent is authorized by said Company to confer this power of attorney; that the seal affixed hereunto by the deponent in the name and on behalf of said Corporation is the corporate seal thereof; and that the purpose for which this Instrument is granted is included within the corporate purposes of the Company.
The undersigned Notary Public has seen the articles of Incorporation of said Corporation executed at Vevey, Switzerland, under date of March 24 1997 and heteby certifies that under the laws of said
County the foregoing acknowledgment is sufficient
proof that the facts therein contained are true, which
he attests.

Lógalisation No 71135. -
Le notaire JEAN-DANIEL RtJMPF,

Vevey, District de Vevey, Canton de
Vaud, Suisse, certifie authentique la signature apposØe d’autre part par MnrPau1a NELSON, directrice-adjointe de la sociØtØ NESTEC S.A.,

Vevey, qu’elle engage valablement par sa signat414, individuelle.____

tootj

AN MA

VEVEY, LE ONZE AOUT DEUX MILLE QUATRE.

. . N ’ ’

1 L4

L’(SET200&:.

(cLU

ajo firmacios, NESTEC S.A., una sociedad ’organi da y existonte do conforrnkladcon las Ieyes do Sul a

con donicilioen Avenue NestlØ 55, CH-1800 Vevey, Suiza

nombrmos por el presente a ALICIA LLOREDA yb GUSThVO TAMAYO yto IGNACIO SANTAMARIA y/o EI’IRIQUE ALVAREZ, domiciliados an Bogota, Colom la, con oficinas an dicha eluded, Celle 72 No. 5-83,)!so 6o., nuestros representantes. legates y verdaceros an Bogota, con facultades para. recibir notlflcciones y nombrar apoderados judiciales 0 extrajuilciales, con el fin rde der cumplimiento at parÆgrfo 1. del articulo 543 del decreto 410 de 1971.

l.os doctores ALICIA LLOREDA y10 GUSTAVO TAMAO y/o IGNACIO SANTAMARIA y/o ENRIQUE ALVAEZ, o los apoderados quo cuslquiera do ellos design, quedan especialmente facultados para
; rpresntarnos ante las autoridades colombianas, admini trativas, judiciales o de policla, an todos los .trrnit s relativos a la propiedad industrial, a cuyo efecto las facultamos para der ante dichas autori ades todos los pesos necesarios al objeto indica o; olevar solicitudes, declaraciones, reclamos, recurs a y presenter desistimientos; formular descri ciones, enmiendas, limiter el atcance do las solicit des, presenter oposiciones y apelaciones; instau ar cancelaclones. renunciar total o

cu

las
do

seen

drbitr

l ente a. los registros, abonar todos los
tos y cuótas y efectuar todo otro pago
rr Inado por la ley; recibir todos los documentos
I res,. dando el descargo respectivo; Ilenar
is uiera. otros requlsitos y tomar, on fin, todas
i didas que creyeren conducentes al resguardo ii stros Intereses;.y an caso do producirse
c

.pasando los antecedentes

los tribunales,
an facultados para tomar iritervenciOn como Mantes o demandados ante los jueces quo competentes, ptldiendo transar, someter, a o, desistir, percibir y apelar, con todas las
it facultades quo resulten necesarias, y por el
to. declaramos desde chore vØlido y bueno
tc dichos representantes y/o los.apoderados quo ulera de ellos nombre hicieren en nuestro

simismo, facultamos a los doctores ALICIA LLOREDA y10 GUSTAVO TAMAYC) y/o IGNACIO-’ SANTAMARIA y/o ENRIQUE ALVAREZ, para solicit r en la Oficina do Propiedad Industrial Ia protoc lizacion de este documento y de cualquiØr poder quo cualquiera de ellos otorgue a nombre

Dado firmado ..

The undersigned, NESTEC 8.A., a corporation organized and existing under the laws of Switzerland.

domiciled at Avenue NestlØ 55, CH-1800
Vevey, Switzerland

hereby appoint, ALICIA LLOREDA and/or GUSTAVO TAMAYO and/or IGNACIO SANTAMARIA

and/or ENRIQUE ALVAREZ, of Bogota, Colombia, with offices in said town, Celle 72 No. 5-83, Sixth Floor, our true and legal representatives In Bogota, with power to receive notifications and to appoint judicial or extrajudicial agents, so as to comply with paragraph 10. of article 547 of decree 410 of 1971.

Doctors ALICIA LLOREDA and/or GUSTAVO TAMAYO and/or IGNACIO SANTAMARIA and/or ENRIQUE ALVAREZ, or the agents by any one of them appointed, are especially empowered to represent us before the administrative, judicial or police authorities of Colombia, in all proceedings pertaining to industrial property, for which purpose we authorize them to take before the said authorities all the necessary steps for the said

to file petitions,
declarations, claims, recourses and withdrawals, to draw up specifications; to.filO amendments, to limit the scope of applications, file oppositions; file cancellations total or partially waive registrations, to pay all installments and effect all other payments prescribed by law; to receive proper receipts, to comply with all other requirements and, in short, to take all those measures which they may deem fit for the protection of our interests; and in case of opposition, where the proceedings be passed over to the courts, we authorize said agents to act on our behalf, as complainants as well as defendants, before the competent judges, with full powers to make arrangements, to submit to arbitrators, to desist, to collect, to appeal and, in short,. with all such further powers as may be required, and we hereby declare from now on as valid and good all that said representatives. and/or the agents by any one of them appointed may do for our benefit.

We also authorize doctors ALICIA LLOREDA and/or. GUSTAVO TAMAYO and/ IC 1ACI0
SANTAMARIA aæd/o ,.ply
for protocohzatlon of this dooumennd pwer
of attorney by anyofthem conerredJn ’UPa,
before the Office of lnduthal P j’çty

U SET 2005I

Given and signed this 5th August 4
. JiIM4 ’,’,UUL 1FO?,IION*

NOTARIO 4 -
Paula NELSON -Vice President

c...1J
NOTAR\’ SHOULD EXECUTE OTHER SIDE.

LIU

WO 2006/034857 PCT/EP20D51010485
17

Claims

1 A method for the production of nanoparticulated whey protein comprising the
5 step of:
i) adjusting the pH at a very precise narrow range of an aqueousIsolution of whey protein, or adjusting the ionic strength of the whey protein preparation while keeping
the pH constant, and
ii) subjecting the aqueous solution to a temperature of between 800 to 95°C, during a
0 time period offrom 10 seconds to 30 minutes, to obtain a hqind dispersion ofspherical
nanoparticulated whey protein having a particle size ofless than 1 pm,

2. The method according to claim 1, inducing spontaneous nanoparticulation of
whey proteins during heat treatment in absence ofshearing, in which the proportion of
S nanoparticles in the liquid dispersion is of at least 20% and residual soluble aggregates
or soluble protin below 80%.

3. The method according to claim 1 or 2, in which the average nanoparticle size is
characterised by a polydispersity index below 0.200

0

4 The method according to claim 1, wherein the time period is 15 minutes and the
temperature 85°C S

5. The method according to one of claims ito 4, wherein:
25 - the pH is 5.6 to 6 4, preferably 5.8 to 6.0 to obtain negatively charged uanoparticules

or,

- the pH is 7,5 to 8 4, preferably 7.6 to 8.0 to obtain negatively charged rzanopartzcules
in presence oflarge amount offree minerals or,
-. the pH is 6.4 to 7.4, preferably 6.6 to 7.2 to obtain negatively charged nazioparticulea
30 in presence ofmoderate content offree minerals,

6 The method according to one of claims 1 to 4, wherein the pH is 3.5 to 5 0, to
obtain positively charged rianoparticules.

35 7. The method according to one of claims I to 6, in which the dispersion of
nanoparticles is subjected to drying.

5

10

1.5

20

WO 20061034857 PCT/EP200/01 0485

8. The method according to any of the preceding claims, wherein the aqueous
whey protein solution is essentially salt free or where ionic strength has been adjusted
by organic or inorganic ions in such a way that is allows nanoparticulation at constant
PH.

9. The method according to any ofthe preceding claims, wherein the whey proteins
are present in the aqueous solution in an amount of 0 1 wt.-%, to 12 wt -%, preferably 0.1 wt -% to 8 wt.-%, more preferably 02 wt -% to 7 wt.%, even more preferably 1 Wt, -.% to 4 wt.-%, on the basis ofthe total weight ofthe solution.......

10. The method according to any of the preceding claims, in which the whey is
replaced by any other deunneralized or slightly mineralized globular protein, in particular from egg, soy, cereals, oilseeds, or from other vegetable or animal origin.

ii. Nanoparticulated whey protein obtainable by a method according to any of
claims 1t 10.

12. Nanoparticulated whey protein according to claim 11, having a Protein
Efficiency ofat least 118..

13. Nanoparticulated protein obtainable by a method according to claim 11, having a
Protein Efficiency Ratio of at least 100

14. Use of a nanoparticulated whey protein according to anyof:thó claims 11 to 13
25 for the preparation of a food product, a food supplement, a nutritional and/or pharmaceutical composition.

15 Use according to claim 14, for low fat products

30 16. The use according to claim 14 or 15, for coffee creamers; yoghurt, pasteurized,
UHT milk, sweet condensed milk, fermented milks, milk-based fermented products,
milk chocolate, mousses, foams, emulsions, ice cream, milk based powders, inThzit formulae, diet fortifications, pet food, or tablets, dried oral supplement, wet oral supplement.
35

17 Food product, food supplement, nutritional and/or pharmaceutical composition,
containing a nanoparticulated whey protein according to any ofthe claims 11 to 13.

REP RTE DE EXAMEN PRELIMINAR INTERNACIONAL

SOBIE PATENTABILIDAD

Solicitud internacional No.

PCT/EP2005/010485

Casil allo. IV Falta de unidad de invención

1. En respuesta a la invitación para restringir o pagar derechos adicionales el solicitante ha:

FIrestringido Las reivindicaciones.

pagado derechos adicionales.

Epagado derechos adicionales bajo protesta.

F-Ini restringido ni pagado derechos adicionales.

2, [J Esta Autoridad encontró que el requisito de unidad de invención no se ha cumplido y escogió, de

conformidad con la Regla 68.1, no invitar al solicitante para que restrinja o pague derechos adicionales.

3. Esa Autoridad considera que el requisito de unidad de invención de acuerdo con las Reglas 13.1, 13.2 y
1.3 es

LJ se ha cumplido.

no se ha cumplido por las siguientes razones:

ver hoja separada

4. P4r consiguiente, las siguientes partes de la solicitud internacional fueron el objeto del examen peliminar internacional para establecer en estØ reporte:

Todas las partes.

Las partes que se relacionan con las reivindicaciones Nos. 1-9, 11-18 (pardalmente).

Cas1la No. V Afirmaciôn razonada bajo el Articulo 35(2) respecto a novedad, nivel inventivo o

apIi?abilidad industrial; citaciones y eplicaciones gue sustentan dicha afirznación

2. C

Novedad (N)

Nivel inventivo (IS)

Si: Reivindicaciones

No: Reivindicaciones 1-9,11-18

Si: Reivindicaciones

No: Reivindicaciones 1-9,11-18

Aplicabilidad industrial (IA) Si: Reivindicaciones 1-9,11-18 No: Reivindicaciones

ciones y explicaciones (Regla 70.7):
hoja separada

PCI’IIPEA/409 (Enero 2004)

11

Form

PATENT COOPERATION TREATY

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

(PCT Article 38 and Rule 70)

Applicant’s or agent’s file reference
NO 7752&JO/PCT FOR FURTHER ACTION See Form PCTAPEA1416

International application No. International filing dale (day4nrnnth3’ew) Priority date (day4nonth4’ear)
PCTIEP2005)01 0485 28.09.2005 29.09.2004

International Patent Classification ([PC) or national classification and]PC
INV. A23J3i08 A23J1i20 A23021i00

Applicant
NSTEC S.A. at al.

1. This report is the international preliminary examination report, established by this International Preliminary Examining
Authority under Article 35 and transmitted to the applicant according to Article 36.
2, This REPORT consists of a total of 9 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
a. 0 sent to the applicant and to the international Bureau) a total of sheets, as follows:

U sheets of the description, claims andbr drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the

Administrative Instructions).
0 sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the International application as filed, as indicated In item 4 of Box No. I and the Supplemental Box.
b.11 (sent to the lntarnalional Bureau only) a total of (indicate typo and number of electronic carrier(s))

containing a
sequence listing andbr tables related thereto, In celectronic form only, as indicated in the Supplemental Box
Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

IXI Box No. I Basis of the report
O Box No. II Priority
El Box No. Ill 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
O Box No, VI Certain documents cited
Box No. VII Certain defects in the international application
O Box No. VIII Certain observations on the international application

Oats of submission of the demand Date of completion of this report

25.04.2006 27.10.2006

Name and mailing address of the international Authorized officer
preliminary examining authority:

European Patent Office0-60298Munich
Tel. +49 89 2399 -0 Tx: 523656 epmu d

Muller, Isabelle F
Fax: +49892399-4485 Telephone No. +4989 2399-

PCTIIPEN409 (Cover Sheet) (April 2005)

C

INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY

International application No.
PCTiEP2005i01 0485

Box No I Basis 01 the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language1
which is the language of a translation furnished for the purposes of:
0 international search (under Rules 12.3 and 23.1(b))
0 publication of the international application (under Rule 12.4)
O international preliminary examination (under Rules 55.2 ancl1br 55.3)

2. With regard to the elements* of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation underArtIcle 14 are referred to in this report as "originally filed" and are not annexed to this report):

Description, Pages

1-16 as originally flied

Claims, Numbers

i-i a as originally filed

Drawings, Sheets

116-616 as originally filed

0 a sequence listing andbr any related table(s) - see Supplemental Box Relating to Sequence Listing

3. 0 The amendments have resulted in the cancellation of:

O the description, pages
U the claims, Nos.
L1 the drawings, sheetsifigs
the sequence listing (specify):
U any table(s) related to sequence listing (specify):

4. 0 This report has been established as if (Some Of) the amendments annexed to this report and listed below
had not been made, since they have been considered to go beyond the disclosure as flied, as Indicated in the Supplemental Box (Rule 70.2(0)).
the description, pages
the claims, Nos.
the drawings, sheetsfligs
El the sequence listing (specify):
O any table(s) related to sequence listing (specify):

If item 4 applies, some or all of these sheets may be marked "superseded."

Form F’CTIPFAJ 409 (January 2004)

S

INTERNATIONAL PRELIMINARY REPORT international application No. ON PATENTABILITY PCTiEP2005i01 0485

Box No IV Lack of unity of invention
1.0 In response to the Invitation to restrict or pay additional fees, the applicant has;
El restricted the claims.
O paid additional tees.
U paid additional fees under protest.
neither restricted nor paid additional fees.
2. 0 This Authority found that the requirement of unity of invention is not complied with and chose, according to
Rule 68. 1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention In accordance with Rules 13.1, 13.2 and 13.3 is
LI complied with.
not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the International application:
0 all parts.
the parts relating to claims Nos. 1-9, 11-18 (partially).

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
1. Statement

Novelty (N) Yes: Claims
No: Claims 1-9,11-16
Inventive step (IS) Yes: Claims
No: Claims 1-9111-18
Industrial applicability (IA) Yes: Claims 1-9111-18
No: Claims

2. Citations and explanations (Rule 70.7):
see separate sheet

Form PCTAPEA/409 (January 2004)

L]

0

INTERNATIONAL PRELIMINARY International application No. REPORT ON PATENTABILITY
(SEPARATE SHEET) PCT/EP2005/01 0485

jtern IV.
The separate inventions/groups of inventions are:

I) Claims 1-9, 11-18 (partially)
Method for preparing nanoparticulated whey protein with a particle size below I micrometer by adjusting the pH or ionic strength and heat treating the solution for
a specific time period as well as nanoparticulated whey protein obtainable by such method, use thereof and products comprising these.

ii) Claims 10, 11-18 (partially)
Method for preparing nanoparticulated globular protein other than whey, with a particle size below 1 micrometer by adjusting the pH or ionic strength and heat treating the solution for a specific time period as well as nanoparticulated whey protein obtainable by such method, use thereof and products comprising these.

The application relates to a plurality of inventions, or groups of inventions, in the sense of Rule 131 PCT. They have been divided as defined above.
The requirement of unity shalt be fulfilled only when there is a technical relationship among those inventions having one or more ofthe same or corresponding technical features. The expression ’special technical feature’ shall mean those technical features that define a contribution over the prior art (Rule 13.2 PCT).
The present claims relate either to a method for preparing nanoparticulated whey protein (claims 1-9) or for preparing nanoparticulated globular protein (claim 10), as well as the said proteins obtainable by such methods(claims 11-13), its use (claims 14-16) and products comprising the same (claims 17 and 18).
The subject-matter of in particular the 1, 10 and 11 is neither new nor Inventive vis-ª-vis in particular EPI2$1 322, which discloses as a part of a process for preparing a product comprising a gelled composition, a process for making globular protein aggregates of an average particle size in the range of from 10-300 nanometers (of. claim 1), according to claim 2, the protein is preferably selected from whey, soy, ovalbumin or blood serum albumin (see also paragraph 13). Considering the
temperature of the heat treating step In order to obtain said nanoparticles, the skilled
man would seriously contemplate any temperature inf the range of from 60 to 159 CC as indicated in paragraph 26.. The some applies to the subject-matter of present claims 14
and 17 (see paragraphs 19 and 20). The common technical feature between the two inventions is for the method, the step of pH adjustment or ionic strength adjustment, the

Form PC1eparaie Sheel/409 (Sheol 1) (EPO.January2004)

3l

INTERNATIONAL PRELIMINARY International application No. REPORT ON PATENTABILITY

(SEPARATE SHEET) PCT/EP2005101 0485

thermal treatment and the particle size. However all ofthese technical features are already disclosed in EP1281322 For the product claims 11-13 the common technical feature is the particle size. Nanoparticulated whey protein or for example soy protein is known from EP1281 322. The same applies to for example U$5750183 (of. example 7
and figure 1).
Hence, the Search Authority considers that the claims 1-18 constitute two different
inventions which are either directed to whey proteins or to globular proteins other than
whey.

The requisite unity of invention (Rule 13.1 PCi) therefore no longer exists inasmuch as

0 a technical relationship involving one or more of the same or corresponding special
technical features in the sense of Rule 13.2 PCT does not exist between the groups of
invention of the present application.

Re.Jteni.M4
Reference is made to the following documents:
Dl EP-A-I 281 322 (WAGENINGEN CENTRE FOR FOOD SCIENCES) 5
February 2003 (2003-02-05)
02 GB-A-I 079 604 (GENVRAIN) 18 August 1987 (1987-08-16)
03 EP-A-0 603 981 VERENK3DE COOEPERATIEVE MELKINDUSTRIE
COBERCO B.A 29 June 1994 (1994-08-29
04 US-.B1-6 787 575 (HUSS MANFRED ET AL) 27 July 2004 (2004-07-27)
05 WO 93/07761 A (THE NUTRASWEET COMPANY) 29 April 1993 (1993-04-
29)
06: US-A-5 750 183 (YAMAMOTO ET AL) 12 May 1998 (1998-05-12)
D7 WO 91/17665 A (THE NUTRASWEET COMPANY) 28 November 1991
(1991-11-28)
08 ELOFSSON C ET AL "CHARACTERIZATION OF A COLD-GELLING
WHEY PROTEIN CONCENTRATE" INTERNATiONAL DAIRY JOURNAL, ELSEVIER APPLIED SCIENCE, BARKING GB, vol 7, 1997, pages 601-606, XP002930840 ISSN: 0958-6948
09 JU ZH1 YONG ET AL "Gelation of pH-aggregated whey protein isolate
solution induced by heat, protease, calcium salt, and acidulane’ JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 48, no. 5, May 1998 (1998-05), pages 1830-1835, XP002146903 ISSN: 0021-8561
Form P&tISeparte SheetI409 (Sheet 2) (EO.Jenuary 2004)

I

I"

INTERNATIONAL PRELIMINARY International application No. REPORT ON PATENTABILITY
(EPARATE SHEET) PCT/EP2005/01 0485

010: EROMAN J,W,: ’The Quality of Microparticulated Protein" JOURNAL
OF THE AMERICAN COLLEGE OF NUTRITION, vol. 9, no. 4, 1990,
pages 398-409, XP009039280

2. Preliminary remarks
2.1 Claim I does not meet the requirement of clarity in accordance with Art 6 PCT in
view of the relative expression ’a very precise narrow range’ (see PCT Guidelines Chapter 5.34).
2.2 Claim 1 is defined in terms of a result to be achieved, in fact merely claiming the
underlying technical problem which is, how to choose the treatment conditions
such that nanoparticulated whey protein of a particle size below 1 micrometer can
be obtained (Cf below, discussion of the prior art and see Guidelines Chapter
535).
2.3 The subject-matter of claims 12 and 13 appears not

meet the requirement of
Art 6 PCT when referring to page 4 of the present description where a PER of 3,8
is noted for whey, which is consistent with 09 (see tables 4 and 6)
24 The particle size ofthe whey protein cannot be considered for delimitation from
the prior art when part of a processed food product. See claims 17 and 18
directed to products containing the whey protein in accordance with claims 11-13,

3. INDEPENDENT CLAIMS 1, 11, l4 and l7

3.1 The present application does not meet the criteria ofArticle 33(1) PCT, because
the subject-matter of claim I does not appear to be new In the sense of Article
33(2) PCT over prior alt as follows;
02 discloses a process Including the steps of bringing the pH of whey to a value
of between 4,6 and 7,0, then heating to a temperature in the vicinity of 90°C which can last from 30 seconds to 30 minutes In order to from a fine powder of
precipitated whey protein (cf. page 2, lines 16-29 and lines 70-81).

3.2. The present application does not meet the criteria of Article 33(1) POT, because the subject-matter of claim his not new in the sense of Article 33(2) PCT over
the prior art as follows:

Document Dl discloses nanoparticulated whey protein with a particle size offrom 30-200 nanometers which is an intermediate product in the process’for preparing
a product comprising a gelled aqueous composition, In the example In paragraph
Farm OM15aparato $Lieet4O9 (Sheet 3) (EPO-Janury 2004)

0

INTERNATIONAL PRELIMINARY intemationai application No. REPORT ON PATENTABILITY

(SEPARATE SHEET) PCT/EP2005/010485

42 of Dl, whey piotein particles of a mean diameter of 55 nanometer are
disclosed.02 discloses a fine powder of precipitated whey protein (see item 3.1
above). 03 discloses concentrated whey protein aggregates In the size range of
from 0,1 micrometer to 10 micrometer, hence including nanopartioulated whey
protein having a particle size below 1 micrometer (see cot. 4, I. 31 to 43). The
same as for 03 applies to 04 and 06 which disclose dry mlcroparticulated whey protein having a mean diameter greater than about 0,1 micron (cf claim 15 in 03, claims 3 and 4 in 06). The microparticles are useful as substitute for fat in food products (see paragraph 1, page 1). 06 discloses whey protein microparticles having fat-Like properties and having a particle size between 0,01 and I micrometer (see examples and col. 5, 1 14-16) The said microparticles are useful as fat substitute in the preparation of food such.asmargarine, spreads, mayonnaise, drinks etc. (see col. 5, I. $8-47 in particular). 07 discloses whey particles having an aggregate size of between 30 and 50 nanometers (see page 602, left column, second paragraph). D8 discloses aggregated whey protein with a particle size of between 200 and 400 nanometers (see abstract).

In addition, It is noted that commercially well known products such as for instance SIMPLESSE 100 (microparticulated whey protein) from NutraSweet Company appear to be encompassed in the subject-matter of present claims 11..13.

The same reasoning as for claim 11 applies to the subject-matter of present independent claims 14 and 17 (cf item 3.2 above) in view of in particular prier art documents 04, 05 and 06.

3.4 In view of the subject-matter of claims 12 and 13 it Is noted that a PER for microparticulated whey protein such as noted on page 4 of the present description
is already known from 09 (tables 4 and 6) (see also Item 2.3 above). As a consequent, a delimitation In terms of novelty of claims 12 and 13 merely in terms
of PER from any of afore-noted prior art document disclosing micro- or nanoparticutated whey protein is highly questionable

4. DEPENDENT CLAIMS 2-9,12,13,15,16,18
Dependent claims 2-9, 12, 13, 15, 16, 18 do not contain any features which, in combination with the features of any claim to which they refer, appear to meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2)
Form OcTrsepsrate Siieetf4OW (Sheet 4) (EPO.Jnuiy 2004)

I, 3L4

Ij

INTERNATIONAL PRELIMINARY International application No. REPORT ON PATENTABILITY

(SEPARATE SHEET) PCT/EP2005/01 0485

and (3) PCT).

5. The subject-matter of present claims 1-9 and 11-18 (partially) is applicable in the
food industry (Art. 33(4) PCT).

POT/Separate Sheei/409 (Sheet 5) (EPO-January 2004)

IN

ANEXO EXPLICAT)VO DE MODIFICACIONES A LAS REIVINDICACIONES

En ejerctcio del derecho conferido por el Articulo 28 numeral I del Tratado de Cooperación en materia de Patentes PCT, atentamente me permito informar a ese Despacho que el capitulo reivindicatorio tat como fue presentado originalmente en Fase Internacional ha sido modificado.

Las modificaciones realizadas se encuentran plenamente sustentadas en la descripciOn de la presente invención y en este sentido, no configuran una ampliaciOn del invento o de la divulgaciOn contenida en la solicitud presentada.

Esta declaración est6 dirigida a la solicitud internacional No. PCT/... (Si se presenta una declaraciOn segün la Regla 26ter). Par el presente declaro que ml residencia, direcciOn postal y ciudadania son como se expresa junto a mi nombre.

Por el presente declaro que he revisado y entiendo los contenidos de la solicitud internacional identificada a continuaciOn, incluyendo las reivindicaclones de dicha solicitud. He identificado en Ia solicitud de dicha solicitud, en cumplimiento con la Regla 4.10 PCT, cualquier reivindicación de prioridad extranjera, y he identificado a continuaciOn, bajo el encabezamiento "Solicitudes Anteriores", por nUmero de solicitud, pals o MiembrO do la Organizacion Mundial del Comercio, dia, mes y aæo de presentación, cualquier solicitud do patents o certificado de inventor presentado en un pals diferente a los. Estados Unidos de America, incluyendo cualquier solicitud internacional del POT designando al menos a un pals diferente a los Estados Unidos do America, que tiene una fecha de presentación anterior a la de Ia solicitud sobre la cual Se reivindica prioridad extranjera.

Solicitudes Anteriores: EP 04023174.8 - 29.09.2004

2

Por el presente reconozco el deber de revelar informaciOn que s6 que es importante para patentabilidad segün se define en 37 C.F.R. §1.56, inc(uyendo solicitudes para solicitudes de continuación en parte, información importante que se hizo disponible entre la fecha de presentación de (a solicitud anterior y (a fecha de presentación internacional del PCT de la solicitud de continuaciôn en parte.

Mediante el presente declaro que todas las declaraciones hechas en el presente de ml propio conocimiento son verdaderas y que todas (as declaraciones hechas sobre información y creencia se cree que son verdaderas; y ademÆs que estas declaraciones fueron dadas con el conocimiento de que (as declaraciones intencionalmente fraudulentas y semejantes son castigables con multa o prisión, o ambos, bajo la SecciOn 1001 del Titulo 18 del COdigo de los Estados Unidos y que dichas declaraciones intencionalmente fraudulentas pueden perjudicar (a validez de la solicitud o cualquier patente que se expida sobre ella.

Nombre: BOVETTO Lionel
Residencia: Larringes, Francia
(ciudad y estado de los EU, si aplica, o pa(s)
Dirección de correo: 220 B Route des Tattes, St Thomas, 74500 Larringes,

Francis
Ciudadania: Francesa

3

Firma del Inventor: (ilegible) Fecha: 28 / 09 / 2005
Si no estÆ contenido en ía solicitud, a si (de ía firma que no estØ contenida en ía la declaraciOn es corregida o agregada solicitud, o de la declaraciOn que es bajo (a Regla 26ter despuØs de corregida a agregada bajo ía Regla presentar la solicitud internacional. La 26ter despuØs de presentar la solicitud firma debe.ser (a del inventor, no (a del internacional)
agente)

Nombre: SCHMITT Christophe JE
Residencia: Belmont s/Lausana, Suiza
(ciudad y estado de los EU, si aplica, a pals)
Dirección de correo: Route d’Arnier 16, 1092 Belmont s/Lausanne, Suiza Ciudadania: Francesa
Firma del Inventor............................Fecha: 28 I 09 I 2005
si no estÆ contenido en la solicitud, 0 si (de (a firma quo no esth contenida en (a Ia declaración es corregida o agregada solicitud, o do la declaraciOn que es bajo la Regla 26ter despuØs de corregida a agregada bajo la Regla presentar (a solicitud internacional. La 26ter despuØs de presentar la solicitud firma debe ser la del inventor, no la del internacional)
agente)

4