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## INTERGOVERNMENTAL COMMITTEE ON INTELLECTUAL PROPERTY AND GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE

**Ninth Session**  
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### ANALYSIS OF POTENTIAL CASES OF BIOPIRACY

*Document submitted by Peru*

1. In a note dated February 27, 2006, the Permanent Mission of Peru before the Offices of the United Nations and Other International Organizations in Geneva submitted a document to be circulated as a working document for the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore ('the Committee') at its ninth session.
2. The note advised that the document referred to the experience of Peru concerning the fight against biopiracy. The document was previously submitted to the Council for TRIPS of the World Trade Organization (WTO) in October 2005, as document IP/C/W/458, the Spanish version of which should be considered the original.
3. The submission is published in the form received in the Annex to this document.
4. *The Intergovernmental Committee is invited to take note of the contents of the Annex.*

[Annex follows]

## ANNEX

## ANALYSIS OF POTENTIAL CASES OF BIOPIRACY

The Case of Camu Camu (*Myrciaria Dubia*)

## INTRODUCTION

In recent years, Peru has made it clear that the protection of its genetic resources (part of its biological resources) and of the related traditional knowledge of the indigenous peoples of Peru is one of its major concerns in view of the growing trend towards using such Resources – without the consent of their owners and without giving them any compensation – in order to develop inventions it is ultimately intended to protect under the patent system. In this respect, as mentioned in document IP/C/W/441<sup>1</sup> (submitted to the meeting of the Council for Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the World Trade Organization (WTO), held in March 2005), Peru has adopted a series of measures, policies and rules to combat biopiracy.

One of the measures adopted was the creation of the National Anti-Biopiracy Commission<sup>2</sup>, whose basic task is to develop actions to identify, prevent and avoid acts of biopiracy which involve biological resources of Peruvian origin and traditional knowledge of the indigenous peoples of Peru. Initially, this intersectoral commission focused on *identifying potential cases of biopiracy* of six biological resources of Peruvian origin<sup>3</sup>, i.e. looking for pending patent applications or patents granted abroad that seek to protect inventions apparently obtained from or developed on the basis of these biological resources and/or the traditional knowledge of Peru's indigenous peoples.

In order to highlight the progress made and the problems encountered by Peru in combating biopiracy and also to support its position in various international forums, the results of the first stage of this work were presented to the meeting of the TRIPS Council of the World Trade Organization (WTO) held in March this year<sup>4</sup>, and to the Eighth Session of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore of the World Intellectual Property Organization (WIPO), held in June 2005.<sup>5</sup>

The Commission has now started to analyse each of the cases identified during the first stage of the search for potential cases of biopiracy. It has benefited from the support of an expert in each of the resources – who has collected information on each resource (background, characteristics, related traditional knowledge, *inter alia*) – and of a patent examiner – who has

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<sup>1</sup> Document IP/C/W/441 'Article 27.3(b), relationship between the TRIPS Agreement and the CBD and protection of traditional knowledge and folklore'.

<sup>2</sup> The Nacional Anti-Biopiracy Commission was established under Law No. 28216, approved by Congress on April 6, 2004, and published on May 1, 2004, in the Official Journal 'El Peruano'.

<sup>3</sup> The following are the six resources mentioned: hercampuri (*Gentianella alborosea* (Gilg) Fabris), camu camu (*Myrciaria dubia*), yacon (*Smallanthus sonchifolius*), caigua (*Cyclanthera pedata* L.), sacha inchi (*Plukenetia volubilis* L.) and chancapiedra (*Phyllanthus niruri*).

<sup>4</sup> See document IP/C/W/441.

<sup>5</sup> Document WIPO/GRTKF/IC/8/12 'Patent system and the fight against biopiracy – the Peruvian experience'.

examined compliance with the criteria of novelty and an inventive step for each of them, taking into account the information collected.

### *Outline of the problem*

It has become clear in recent years that the market for natural products (derived from biodiversity) has been steadily expanding, particularly in the United States of America, Europe and Asia. At the same time, the trend towards protecting a large number of inventions obtained or developed through the use of genetic resources of Peruvian origin and/or the related traditional knowledge of Peru's indigenous peoples by means of intellectual property rights (especially patents for inventions) has become more marked and has increased. It can be seen in this connection that a large number of pending patent applications and patents granted do not meet the novelty and inventive step criteria or, when they do meet patentability requirements, they (directly or indirectly) incorporate genetic resources and traditional knowledge that has been obtained illegally, irregularly or questionably, to say the least.

This situation has caused a deep malaise in countries traditionally considered to be 'providers' of resources (and traditional knowledge) and is reflected to some extent in the establishment of protectionist regimes that restrict access to genetic resources and traditional knowledge, which have been underpinned by a change in the paradigm from the idea of mankind's common heritage and free access to that of recognition of the concept of sovereignty, regulated access to resources and protection of traditional knowledge, all of which are concepts introduced by the Convention on Biological Diversity (CBD) from 1993 onwards. Peru has adopted a consistent position over the years, seeking a solution at the international level that will allow a balance to be achieved between the intellectual property regime and legal systems for access to genetic resources and protection of traditional knowledge. Accordingly, as a first measure, it has proposed the inclusion of requirements on disclosure of the origin and legal source of such resources and knowledge as part of the process of revising Articles 27 and 29 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

### *Objective*

This document describes the progress made in identifying and analysing patent applications and patents concerning inventions obtained or developed through the use of camu camu (*Myrciaria dubia*).

It also contains some comments on the limitations and problems faced by countries such as Peru, or that may be faced by them, in identifying, monitoring and studying patent applications or patents that involve improperly granted rights (because they do not meet patentability criteria) or weaken regimes for access to and/or protection of traditional knowledge.

### *Background and content of the report*

As already mentioned, in the first instance, the Commission focused its efforts on seeking out potential cases of biopiracy of six resources, including camu camu (*Myrciaria dubia*). An analysis of potential cases of biopiracy of camu camu (*Myrciaria dubia*) has been conducted. The procedure was as follows:

- Information on the resource was collected.

- The assistance of Mr Carlos Cornejo, an expert on camu camu (*Myrciaria dubia*), was sought for this purpose and he identified, *inter alia*, the prior art, the place of origin, the characteristics, traditional uses and other known uses of this resource.
  - Although the information provided allowed the general aspects of camu camu (*Myrciaria dubia*) to be identified, in the light of the cases to be analysed, it turned out to be insufficient so, in order to add to it and bearing in mind that this information is not systematized, it was necessary to utilize personal references, databases, university libraries and research centres in Lima and the provinces, books, theses, research work, reviews on agricultural, trade and scientific issues, *inter alia*.
  - As it is usually the custom of indigenous peoples to transmit their traditional knowledge orally from generation to generation, it was not easy to find documented background information. It was, therefore, necessary to turn to certain studies that contained a short compilation of ethnobotanical knowledge on the resource for inclusion in this analysis. It should be noted that, although through personal knowledge, it is known that the resource is used in certain applications, in some cases it was not possible to find a document of a proven date to support this.
- The novelty and inventive step in applications and patents were analysed in the light of the information collected.

#### Camu camu (*Myrciaria dubia*)

Scientific name	<i>Myrciaria dubia</i> (H.B.K.) Mc Vaugh <i>Myrciaria paraensis</i> Berg (Mc Vaugh 1958, 1963)
Synonyms:	<i>Myrciaria divaricata</i> (Bentham) O. Berg <i>M. spruceana</i> O. Berg <i>Psidium dubium</i> H.B.K.
Alternative names	Camo camo (Spanish) (Villachica, 1996) Caçari, arazá de agua (Portuguese) (Villachica, 1996) Camu plus (English) (Calzada, 1980) Rumberry, guavaberry (English) ( <a href="http://www.drugdigest.org">www.drugdigest.org</a> )

Camu camu is a plant native to Amazonia and although there is as yet no definitive study determining its place of origin, according to some authors<sup>6</sup>, this could be the Peruvian Amazon, where the largest natural populations of this species in the world are to be found.

<sup>6</sup> Calzada (1980) states that camu camu is solely native to some Peruvian tributaries of the Amazon river. Mendoza *et al* (1989) (INIA) prospected for germplasm in Peru and found that the largest concentration of the natural population was in the Supay and Sahuá lagoons (present district of Jenaro Herrera, Requena province, Loreto department, Peru). Villachica (1996) states that this species grows naturally on the banks of rivers, ‘cochas’ (lagoons) and minor waters (‘gullies’) in Amazonia and says that the largest concentration of the natural population and diversity is to be found in the Peruvian Amazon in the Ucayali and Amazon rivers and their tributaries. Riva (1997) describes camu camu as a fruit originating in the Peruvian Amazon. The IIAP (2001) indicates that there are natural populations of camu camu in Peru, Brazil, Colombia and Venezuela. It also notes that the largest natural populations of camu camu are probably to be found in the Putumayo river basin (border between Peru and Colombia). Anguiz (2001) states that everything appears to indicate that the place of origin of camu camu is in the Sahuá and Supay lakes, tributaries of the Ucayali river, near Jenaro.

According to Villachica<sup>7</sup>, two species belong to the *Myrtaceae* family *Myrciaria* genus, which are called ‘camu camu’: a small tree and a shrub. These species have a distinct vegetative form, harvesting season and there are differences in the fruit, the species most studied being the camu camu shrub (*Myrciaria dubia*) because even though the fruit is smaller, it has the highest level of ascorbic acid (vitamin C) compared with other natural sources such as lemons or acerola with a level of concentration of the nutrient in the resource analysed 60 times higher than the content in lemon juice and over double that in acerola.

**Table No. 1**  
Content of ascorbic acid, proteins and carbohydrates (mg/100g) in the pulp of certain mature tropical fruits

Fruit	Ascorbic acid	Protein	Carbohydrates
Pineapples	20	0.4	9.8
Passion fruit (juice)	22	0.9	15.8
Strawberries	42	0.7	8.9
Lemons (juice)	44	0.5	9.7
Guavas	60	0.5	14.9
Bitter oranges	92	0.6	10.1
Cashews	108	0.8	10.5
Acerola (total)	1,300	0.7	6.9
Camu camu total	2,780	0.5	5.9

Source: Villachica (1996).

According to a document published by the United Nations Food and Agriculture Organization (FAO) in 1993<sup>8</sup>, the main potential use of camu camu is as a source of vitamin C because it can reach up to 2.99g/100g in the fresh fruit (Table No. 2).

**Table No. 2**  
Chemical analysis of the camu camu fruit (g/100g of pulp) (Roca 1965)

Component	(g)	MINERALS	(mg)	Vitamins	(mg)
Calories	17.0	Calcium	27.0	Carotene	Minimum percentage
Humidity	94.4	Phosphorus	17.0	Thiamin (Vit.B1)	0.01
Protein	0.5	Iron	0.5	Riboflavin (Vit.B2)	0.04
Oil	-			Niacin (Vit.B5)	0.62
Carbohydrates	4.7			Reduced ascorbic acid	2,880.00
Fibre	0.6			Total ascorbic acid	2,994.00
Ash	0.2				

Source: Chávez Flores (1993).

The Natural Food Hub (2000)<sup>9</sup> indicates that vitamin C is an important antioxidant which, *inter alia*, helps to prevent cancer, heart disease and stress; it is also an important source of

<sup>7</sup> Villachica L., Hugo. 1996. ‘El cultivo del camu camu (*Myrciaria dubia* H.B.K. Mc Vaugh) en la Amazonía peruana’ Amazon Cooperation Treaty, Pro Tempore Secretariat, Lima, Peru.

<sup>8</sup> Chávez Flores, Wanders B. in ‘Selected species and strategies to enhance income generation from Amazonian forests’. Food and Agriculture Organization of the United Nations (FAO). Rome, May 1993.

[http://www.fao.org/documents/show\\_cdr.asp?url\\_file=/docrep/v0784e/v0784e00.htm](http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/v0784e/v0784e00.htm).

<sup>9</sup> Natural food-fruit Vitamin C Content’ The Natural Food Hub (2000) [www.naturalhub.com](http://www.naturalhub.com), quoted in ‘Market survey for *Myrciaria dubia* H.K. Mc Vaugh (camu camu)’, Project: Agrarian Planning Advice (PROAPA-GTZ), Agrarian Planning Office, Ministry of Agricultura, Peru (August 2000).

energy and is essential for producing collagen, a protein which helps to form cartilage and keep it healthy, together with the skin and circulatory system. In addition, it helps to keep the immune system healthy and facilitates the absorption of nutrients (including iron) in the digestive system.

In 1969, Alvarado<sup>10</sup> identified various uses for concentrated juice and indicated that it was not only an excellent flavouring for ice cream but could also be diluted in order to make juice or mixed with other fruits to make punch. He added that in Iquitos (Peru) it was most commonly used as a fresh juice and that it had also been used to make jams, jellies, wines, liquors and pie fillings. Lastly, he considered that the juice (concentrated or prepared for direct consumption) and tablets made from the pulp or nuts could become products for export. In recent years, a number of projects have been implemented to industrialize camu camu and market it both at the national and international levels because, as a result of its various properties attributable to its high ascorbic acid (vitamin C) content and the boom in natural medicine, nutraceuticals and natural products in general, the market for this product is expanding steadily.

#### Analysis of potential cases of biopiracy of camu camu

The table below basically shows the progress made in verifying compliance with the novelty and inventive step criteria in patent applications and patents that involve direct or indirect use of the resource analysed.<sup>11</sup>

The structure of the table identifies: (a) the document analysed; (b) the most salient aspects it is sought to protect; (c) the most relevant prior art; (d) the comparative analysis between the claim and the prior art found; and (e) the preliminary findings regarding compliance with the novelty and inventive step criteria in each case.

It should be emphasized that these are preliminary findings that are the result of an initial technical analysis. It should also be borne in mind that, as it is a preliminary report, it is possible that new references that will better substantiate the analysis may be found.

#### Major problems in the analysis of potential cases of biopiracy

In the course of the Commission's work, the following problems were identified:

- Although in the majority of cases the database of the Japan Patent Office provides a literal translation into English of applications and/or patents, in many instances this is neither accurate nor consistent, which leads to confusion and in some cases makes analysis impossible;
- In certain specific cases, the aforementioned database only allows access to the original document published in Japanese (not allowing access to the English translation of the claims), which means they cannot be analysed;

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<sup>10</sup> Quoted by Chávez Flores, Wanders B. in 'Selected species and strategies to enhance income generation from Amazonian forests', Food and Agriculture Organization of the United Nations (FAO), Rome, May 1993.  
[http://www.fao.org/documents/show\\_cdr.asp?url\\_file=/docrep/v0784e/v0784e00.htm](http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/v0784e/v0784e00.htm).

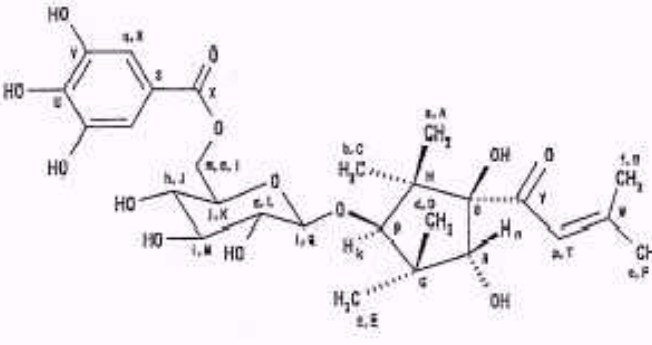
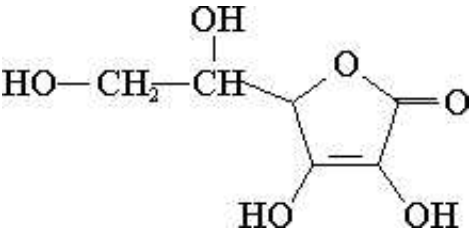
<sup>11</sup> It should be noted that all the cases identified in the search for potential cases of biopiracy (see document IP/C/W/441) have not been analysed but only those deemed to be particularly relevant to the analysis.

- The problems in analysing the Japanese applications and patents made it necessary to use the services of a specialized translator. This implied additional costs and considerably lengthened the time required for the analysis;
- In many cases the description of what is being protected is not sufficiently clear;
- There are problems in finding the prior art for the resource as the information is not systematized. In some instances, it was not possible to find documents that reliably substantiated certain information because it is commonly the custom in the communities to transmit traditional knowledge orally from generation to generation;
- The biological resource-genetic resource relationship raises problems in controlling and identifying those cases in which there is illegal access to genetic resources. This has been exacerbated by the fact that, in recent years, many resources of Peruvian origin have been exported as raw material for direct consumption or industrial processing, with a view to immediate economic benefits.

Lastly, it should be emphasized that for Peru, as a centre of origin of resources (and traditional knowledge), it is not easy to set up a permanent system to identify all applications and/or patents that involve its resources (or related traditional knowledge). Consequently, the National Anti-Biopiracy Commission is endeavouring to show technically that, at the present time, patents that should not be granted (because they do not meet the novelty and inventive step criteria) are in fact being granted as a way of giving concrete examples in support of review of the TRIPS Agreement and the need to improve the prior art search systems currently used by intellectual property offices around the world, particularly when the subject is an invention derived from biodiversity.

ANALYSIS OF POTENTIAL CASES OF BIOPIRACY OF CAMU CAMU (*MYRCIARIA DUBIA*)

## DATABASE OF THE EUROPEAN PATENT OFFICE

DOCUMENT	CLAIM	ANALYSIS OF NOVELTY	ANALYSIS OF INVENTIVE STEP	COMMENTS
<p><b>COMPOUND, PROCESS FOR PRODUCING THE SAME AND USE THEREOF</b></p> <p>Publication of Patent Application No. WO2004074304</p> <p>Filing date of the application: 24.12.2003 (filed as application WO2003JP16544)</p> <p>See document IP/C/W/441: reference s/n (camu camu)</p>	<p>According to the abstract, a component is protected (represented by the formula (1), which comes from a natural material (camu camu <i>Myrciaria dubia</i>) and has a potent antioxidant effect and a stable whitening effect.</p> <p>An antioxidant agent is also protected, a skin preparation for external use, a cosmetic and a foodstuff characterized by containing the compound represented by the formula (1).</p> <p>FORMULA(1)</p> 	<p><b>THERE IS NO EVIDENCE OF LACK OF NOVELTY</b></p> <p>Until now, there has been no prior art referring to compounds (as distinct from ascorbic acid) extracted from camu camu and identified by their chemical structure and even though, according to Villachica's publication (1996), in addition to ascorbic acid, other compounds basically defined as PIGMENTS (which account for the dark red colour of the nut and the pink colour of the final processed pulp) have been identified, there is no document showing their chemical structure.</p> <p>The compound clearly identified in camu camu is ascorbic acid (vitamin C), whose structure, as shown below, does not resemble the structure of the compound described in formula (1).</p> 	<p><b>THERE IS NO EVIDENCE OF LACK OF AN INVENTIVE STEP</b></p> <p>As there is no prior art, no arguments can be put forward regarding the inventive step.</p>	<p>The database only gives access to the abstract translated into English (it does not allow access to the claims translated into English and the complete document has been published in Japanese), which prevents any analysis or interpretation.</p>



### DATABASE OF THE JAPAN PATENT OFFICE

Before undertaking the comparative analysis of the claims in the cases cited below and the prior art found to date, the following must be taken into account:

Although the majority of the claims refer to the resource as “camu camu” or “duck duck”, after reviewing the abstract and/or description, it was obvious that they all referred to camu camu, identifying it by its scientific name (*Myrciaria dubia*). Even though some applications and/or patents refer to an extract of the camu camu fruit using solvents, the extract obtained has been described in terms of its biological effect without mentioning the compounds identified therein. For the purposes of this analysis, therefore, it has been assumed that the compound extracted corresponds to ascorbic acid (vitamin C) inasmuch as, according to the information collected, this is the most characteristic and important compound of the fruit. It should be noted that among the group of applications and patents referring to camu camu extracts, only one claims an extract from the seeds and all the others state (in the claims, abstract and description) that the said extract is obtained from the fruit of the camu camu. Although documents referring to the preparation of liquors based on the camu camu fruit have been found among the prior art, it has not yet been possible to identify clearly the process for preparing these liquors, so it can neither be affirmed nor denied that it is possibly a hydroalcoholic extract.

#### COSMETIC PREPARATIONS BASED ON AN EXTRACT

DOCUMENT	CLAIM	ANALYSIS OF NOVELTY	ANALYSIS OF INVENTIVE STEP	COMMENTS
<p><b>MELANOGENESIS SUPPRESSING AGENT</b></p> <p>Patent No. 3431383</p> <p>Filing date of the application: 14.02.1996</p> <p>See document IP/C/W/441: reference 1 (camu camu)</p>	<p>No. of claims: 1</p> <p>The claim refers to a melanine inhibitor whose active substance is an extract of camu camu obtained through an extraction process using water, organic hydrophilic solvents or a mixture thereof.</p>	<p><b>THERE IS NO EVIDENCE OF LACK OF NOVELTY</b></p> <ul style="list-style-type: none"> <li>– The most relevant prior art identified to date is:</li> <li>– The publications of Leibovitz et al. (1980), Darr et al. (1992) and Farriol et al. (1994), which describe the use of vitamin C in cosmetics.</li> <li>– The publications of Alvarado (1969)<sup>12</sup> and Calzada (1980), which mention the use of the fruit for preparing pulp, thick fruit juice and liquor.</li> <li>– The compilation of traditional uses of the IIAP (2001), which mentions a liquor prepared from the camu camu fruit.</li> </ul> <p>There can be no objection to the novelty of claim 1 inasmuch as:</p> <ul style="list-style-type: none"> <li>– Although the prior art mentions a liquor prepared from the fruit, it is not specified whether it is in the form of an extract or not.</li> </ul> <p>The prior art does not directly describe the use of the fruit in cosmetics.</p>	<p><b>THERE IS EVIDENCE OF LACK OF AN INVENTIVE STEP</b></p> <p>Bearing in mind that ascorbic acid, as an antioxidant and a compound that prevents the mottling that is a sign of aging, has the biological effect described in the claim, it is obvious that the fruit, which contains a high percentage of ascorbic acid and the extract derived therefrom will have the same effect.</p>	

<sup>12</sup> Cited by Chávez Flores, Wanders B. in "Selected species and strategies to enhance income generation from Amazonian forests". Food and Agriculture Organization of the United Nations (FAO). Rome, May 1993. [http://www.fao.org/documents/show\\_cdr.asp?url\\_file=/docrep/v0784e/v0784e00.htm](http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/v0784e/v0784e00.htm).

DOCUMENT	CLAIM	ANALYSIS OF NOVELTY	ANALYSIS OF INVENTIVE STEP	COMMENTS
<p><b>ACTIVATED OXYGEN SCAVENGER AND SKIN BEAUTIFYING COSMETIC COMPOSITION</b></p> <p>Publication No. 11-246336</p> <p>Filing date of the application: 27.02.1998</p> <p>See document IP/C/W/441: reference 2 (camu camu)</p>	<p>No. of claims: 2</p> <p>Claim 1 refers to an agent that eliminates activated oxygen and is characterized by containing one or more types of <u>extracts</u> of plants, including camu camu.</p>	<p><b>THERE IS NO EVIDENCE OF LACK OF NOVELTY</b></p> <p>The most relevant prior art identified to date is:</p> <p>The publications of Leibovitz et al. (1980), Darr et al. (1992), Farriol et al. (1994), Colven et al. (1996) and Darr et al. (1996), which describe the use of vitamin C in cosmetics.</p> <ul style="list-style-type: none"> <li>– The publications of Alvarado (1969)<sup>13</sup> and Calzada (1980), which mention the use of the fruit for preparing pulp, thick fruit juice and liquor.</li> <li>– The compilation of traditional uses of the IIAP (2001), which mentions a liquor prepared from the camu camu fruit.</li> <li>– The database of Dr Duke, which refers to the effectiveness of camu camu as an antioxidant because of its high percentage of ascorbic acid (vitamin C).</li> </ul> <p>There can be no objection to the novelty of claim 1 inasmuch as:</p> <ul style="list-style-type: none"> <li>– Although the prior art mentions a liquor prepared from the fruit, it is not specified whether it is in the form of an extract or not.</li> <li>– The prior art does not directly describe the use of the fruit in cosmetics.</li> </ul>	<p><b>THERE IS EVIDENCE OF LACK OF AN INVENTIVE STEP</b></p> <p>Bearing in mind that ascorbic acid, as an antioxidant and a compound that prevents the mottling that is a sign of aging, has the biological effect described in the claim, it is obvious that the fruit, which contains a high percentage of ascorbic acid, and the extract derived therefrom will have the same effect.</p>	<p>In Dr Duke's database (Dr Duke's Phytochemical and Ethnobotanical Databases), the chemical composition of camu camu is described and, depending on each component found, a possible biological effect is attributed to it.</p> <p>In reviewing this database, it can be seen that there are two links, one to a 1995 publication (JCB= J Cell Biochem vol 22=1995) and another to a 1998 publication (AllHerb1998), so it was not possible to determine the exact date of the reference.</p>
<p><b>COSMETIC COMPRISING EXTRACT OF CAMU CAMU</b></p> <p>Publication No. 2000-327549</p> <p>Filing date of the application: 17.05.1999</p> <p>See document IP/C/W/441: reference 4 (camu camu)</p>	<p>No. of claims: 5</p> <p>Claim 1 refers to a make-up base characterized by containing an <u>extract</u> of the camu camu fruit.</p> <p>It should be noted that although it refers to "make-up" and an "extract", taking into account what is mentioned in the description, make-up means a cosmetic preparation and "extract" both a liquid pressed from the camu camu and extracts obtained using solvents.</p>	<p><b>THERE IS NO EVIDENCE OF LACK OF NOVELTY</b></p> <p>The most relevant prior art identified to date is:</p> <p>The publications of Leibovitz et al. (1980), Darr et al. (1992), Farriol et al. (1994), Colven et al. (1996) and Darr et al. (1996), which describe the use of vitamin C in cosmetics.</p> <ul style="list-style-type: none"> <li>– The publications of Alvarado (1969)<sup>14</sup> and Calzada (1980), which mention the use of the fruit for preparing pulp, thick fruit juice and liquor.</li> <li>– The compilation of traditional uses of the IIAP (2001), which mentions a liquor prepared from the camu camu fruit.</li> </ul> <p>It should be noted that, according to the IIAP publication in 2001, in 1996 among the products developed were a hair mascara and conditioner to improve hair containing camu camu, but as more details are required in this regard, this reference was not taken into account in the analysis.</p> <ul style="list-style-type: none"> <li>– The database of Dr Duke, which refers to the effectiveness of camu camu as an antioxidant because of its high percentage of ascorbic acid (vitamin C).</li> </ul> <p>Claim 1 would be new because, when reviewing the prior art, it was verified that it does not describe the use of the fruit in cosmetics.</p>	<p><b>THERE IS EVIDENCE OF LACK OF AN INVENTIVE STEP</b></p> <p>Bearing in mind that claim 1 refers to a cosmetic preparation that contains a camu camu extract and, according to the publications cited as prior art, at the time the application was filed preparations containing vitamin C were already being used for the skin. Consequently, it can be considered obvious to replace vitamin C by a compound rich in vitamin C, as is the case for a product obtained from the camu camu fruit.</p>	<p>In Dr Duke's database (Dr Duke's Phytochemical and Ethnobotanical Databases), the chemical composition of camu camu is described and, depending on each component found, a possible biological effect is attributed to it.</p> <p>In reviewing this database, it can be seen that there are two links, one to a 1995 publication (JCB= J Cell Biochem vol 22=1995) and another to a 1998 publication (AllHerb1998), so it was not possible to determine the exact date of the reference.</p>

<sup>13</sup> *Ibid.*<sup>14</sup> *Ibid.*

## I. COSMETIC PREPARATIONS RESULTING FROM THE COMBINATION OF TWO COMPONENTS

DOCUMENT	CLAIM	ANALYSIS OF NOVELTY	ANALYSIS OF AN INVENTIVE STEP	COMMENTS
<p><b>SKIN PREPARATION FOR EXTERNAL USE</b></p> <p>Publication No. 2000-327550</p> <p>Filing date of the application: 19.05.1999</p> <p>See document IP/C/W/441: reference 5 (camu camu)</p>	<p>No. of claims: 6</p> <p>Claim 1 refers to skin preparations (for external use) characterized by containing: (a) an <u>extract</u> of camu camu; and (b) an active oxygen remover.</p>	<p><b>THERE IS NO EVIDENCE OF LACK OF NOVELTY</b></p> <p>The most relevant prior art identified to date is:</p> <ul style="list-style-type: none"> <li>– The publications of Leibovitz et al. (1980), Darr et al. (1992), Farriol et al. (1994), Colven et al. (1996) and Darr et al. (1996), which describe the use of vitamin C in cosmetics either alone or combined with another agent such as the antioxidant compound called vitamin E.</li> <li>– The publications of Alvarado (1969)<sup>15</sup> and Calzada (1980), which mention the use of the fruit for preparing pulp, thick fruit juice and liquor.</li> <li>– The compilation of traditional uses of the IIAP (2001), which mentions a liquor prepared from the camu camu fruit.</li> <li>– The database of Dr Duke, which refers to the effectiveness of camu camu as an antioxidant because of its high percentage of ascorbic acid (vitamin C).</li> </ul> <p>There can be no objection to the novelty of claim 1 inasmuch as:</p> <ul style="list-style-type: none"> <li>– Although the prior art mentions a liquor prepared from the fruit, it is not specified whether it is in the form of an extract or not.</li> <li>– The prior art does not directly describe the use of the fruit in cosmetics.</li> </ul>	<p><b>THERE IS EVIDENCE OF LACK OF AN INVENTIVE STEP</b></p> <p>Bearing in mind that ascorbic acid, as an antioxidant and a compound that prevents the mottling that is a sign of aging, has the biological effect described in the claim, it is obvious that the fruit, which contains a high percentage of ascorbic acid, and the extract derived therefrom will have the same effect.</p> <p>Although it may be considered that synergy would be an unexpected aspect that would mean an inventive step, nevertheless, the references to combinations of ascorbic acid and vitamin E (which is also an antioxidant) make it obvious that a combination of the two antioxidants has the same effect.</p> <p>For the foregoing reasons, the claim would not meet the inventive step criterion.</p>	<p>In Dr Duke's database (Dr Duke's Phytochemical and Ethnobotanical Databases), the chemical composition of camu camu is described and, depending on each component found, a possible biological effect is attributed to it.</p> <p>In reviewing this database, it can be seen that there are two links, one to a 1995 publication (JCB= J Cell Biochem vol 22=1995) and another to a 1998 publication (AllHerb1998), so it was not possible to determine the exact date of the reference.</p>
<p><b>SKIN PREPARATION FOR EXTERNAL USE</b></p> <p>Publication No. 2000-327552</p>	<p>No. of claims: 6</p> <p>Claim 1 refers to skin preparations (for external use) characterized by containing: (a) an <u>extract</u> of camu camu; and (b) a moisturizer</p>	<p><b>THERE IS NO EVIDENCE OF LACK OF NOVELTY</b></p> <p>The most relevant prior art identified to date is:</p> <ul style="list-style-type: none"> <li>– The publications of Leibovitz et al. (1980), Darr et al. (1992), Farriol et al. (1994), Colven et al. (1996) and Darr et al. (1996), which describe the use of vitamin C in cosmetics.</li> <li>– The publications of Alvarado (1969)<sup>16</sup> and Calzada (1980), which mention the use of the fruit for preparing pulp, thick fruit juice and liquor.</li> </ul>	<p><b>THERE IS EVIDENCE OF LACK OF AN INVENTIVE STEP</b></p> <p>Bearing in mind that ascorbic acid, as an antioxidant and a compound that prevents the mottling that is a sign of aging, has the biological effect described in the claim, it is obvious that the fruit, which contains a high percentage of ascorbic acid, and the extract derived therefrom will have the same effect.</p>	<p>In Dr Duke's database (Dr Duke's Phytochemical and Ethnobotanical Databases), the chemical composition of camu camu is described and, depending on each component found, a possible biological effect is attributed to it.</p>

<sup>15</sup> *Ibid.*

DOCUMENT	CLAIM	ANALYSIS OF NOVELTY	ANALYSIS OF AN INVENTIVE STEP	COMMENTS
<p>Filing date of the application: 19.05.1999</p> <p>See document IP/C/W/441: reference 6 (camu camu)</p>		<ul style="list-style-type: none"> <li>- The compilation of traditional uses of the IIAP (2001), which mentions a liquor prepared from the camu camu fruit.</li> <li>- The database of Dr Duke, which refers to the effectiveness of camu camu as an antioxidant because of its high percentage of ascorbic acid (vitamin C).</li> <li>- US Patent 5,820,884, published on 13 October 1998, for a body gel, describes a preparation for cosmetic use which contains among its components a skin moisturizing agent such as honey extract and an antioxidant agent such as ascorbic acid, among the options described.</li> </ul> <p>There can be no objection to the novelty of claim 1 inasmuch as:</p> <ul style="list-style-type: none"> <li>- Although the prior art mentions a liquor prepared from the fruit, it is not specified whether it is in the form of an extract or not.</li> <li>- The prior art does not directly describe the use of the fruit in cosmetics.</li> </ul>	<p>In addition, although it may be considered that synergy would be an unexpected aspect that would mean an inventive step, nevertheless, US Patent 5,820,884, published on 13 October 1998 for a body gel, describes a preparation for cosmetic use which contains among its components a skin moisturizing agent such as honey extract and an antioxidant agent such as ascorbic acid, among the options described, so it could be considered obvious to replace the ascorbic acid by an extract of camu camu, which is rich in this compound.</p>	<p>In reviewing this database, it can be seen that there are two links, one to a 1995 publication (JCB= J Cell Biochem vol 22=1995) and another to a 1998 publication (AllHerb1998), so it was not possible to determine the exact date of the reference</p>

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<sup>16</sup> *Ibid.*