ANDEAN COMMUNITY

PATENT EXAMINATION MANUAL

ANNEX

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Patent Application for PROCEDURE AND COMPOSITION TO MODIFY HAIR GROWTH.

In most legislations, the activity of diagnosing, operating and treating (healing) a sick body is considered to be an intellectual activity inherent to a health professional and therefore has no industrial application.

For this Court, the above doctrine would allow for the deduction of a criterion of application for cases in which a product serves both therapeutic and non-therapeutic purposes, to conclude that such a product would be patentable to the extent that the non-therapeutic element prevails in its use and provided that it is this element that is intended to be claimed. Naturally, the final judgment on patentability will depend on the risk that the invention may pose to human health.

Article 4 of Decision 85 is based on what should not be considered an invention and among them includes therapeutic or surgical methods for the treatment of humans or animals.

Regarding diagnostic methods, it is necessary to refer to the technical definitions that specialists bring to the subject to measure the scope of this exception. Professor Manuel Illescas says on the point: "in effect, the exclusion of patentability to diagnostic methods and surgical or therapeutic treatment of the human or animal body comes from the strict application of this criterion. **It is considered, in most legislations, that the activity of diagnosing, operating and treating (healing) a sick body is an intellectual activity inherent to a health professional and therefore has no industrial application." (The Pharmaceutical Patent, Institute of Law and Industrial Ethics, p. 63).**

Doctor Alicia Amaro, Patent Examiner at the European Patent Office, states that for the European Patent Office's Board of

Appeal "the term therapeutic refers to the treatment of a disease, taken in the general sense or, more particularly, to a curative treatment, as well as to the relief of symptoms of pain and suffering". It is interesting for this case to refer to Decision T 36/83 of the Board of Appeal in which it was established that "the cosmetic use of a product that also has a therapeutic use was patentable, since the applicant had claimed only the cosmetic use of the product"; the same Board in another Decision (T 144/83) went so far as to hold that "the administration of an appetite-suppressing chemical compound may be considered as causing both effects:

"...cosmetic treatment, since the predominant motive for losing weight is considered to be only the improvement of physical appearance, and/or curing obesity (therapeutic treatment). If the invention can have both effects and the claims do not specify that the desired effect is cosmetic, both effects are considered and therefore not patentable (T 290/86). In practice, when it is not entirely clear whether the effect of the treatment with a chemical product is of a cosmetic or therapeutic nature, the applicant is required to insert the word "cosmetic..." after the treatment (emphasis added).

For this Court, the above doctrine would allow us to deduce a criterion of application for cases in which a product serves both therapeutic and non-therapeutic purposes, to conclude that such a product would be patentable to the extent that the non-therapeutic element prevails in its use and provided that it is this element that is intended to be claimed. Naturally, the final judgment on patentability will depend on the risk that the invention may pose to people's health.

Finally, it is important to note the opinion of Manuel Pachón Muñoz, in his Manual of Industrial Property (page 22, Ed. Temis) who considers therapeutic or surgical methods to be those that seek to prevent or avoid diseases through medicine, veterinary medicine or surgery, "and does not include prevention, cure or diagnosis by pharmacy".

Regarding diagnostic methods, he defines them as "the art of discovering diseases". This prohibition does not include devices

used for surgical treatments or diagnosis of diseases, "since they are products with industrial applications and this happens with an X-ray device, or a machine that performs bacteriological tests".

Professor José Antonio Gómez Segada, when defining therapeutic procedures from the field of patents, considers them "as those that involve a treatment of the human or animal body with any means that are not surgical in nature in order to restore or maintain health." ("Lack of patentability of therapeutic procedures," Cuadernos de Jurisprudencia sobre Propiedad ndustrial, CEFI, No. 12, p. 22) He also cites the directives of the European Patent Office, which indicate that therapy "involves the cure of an illness or organic dysfunction and includes prophylactic treatments, such as immunization." [...]

There may be the case of products whose invention refers at the same time to obtaining therapeutic or cosmetic purposes, in which case only the claim relating to the cosmetic nature of the product would be patentable, depending of course on the risk that the invention may have on people's health, at the discretion of the judge.

PREJUDICIAL INTERPRETATION PROCESS 12-IP-98

DETERGENT COMPOSITIONS WITH HIGH CELLULASE ACTIVITY.
Susceptibility of Industrial Application. - (Article 5°D)
Article 5 of the same Decision with reference to "industrial application" tells us that an invention is susceptible of industrial application when its object can be produced or used in any type of industry, understood as any productive activity, including services.

With this requirement, it is intended that the inventive level of the human being should be aimed at an action of man on nature, highlighting the industrial process and technological advancement whose economic benefits will be obtained for those who exploit them, obeying the fact that an idea for human action is only useful if it can be put into practice.

Thus, the granting of invention patents must be an action that constitutes a true stimulus to encourage the development of industry and technology.

Furthermore, it is necessary to indicate that this rule does not require that the invention whose patent is requested be applied industrially, but that during the examination carried out by the technician, it is observed whether or not it is susceptible to industrial application. The Court has referred to the subject in the judgment issued in connection with the II-IP-95 Process.

PREJUDICIAL INTERPRETATION PROCESS 42-IP-98

BASIS OF RECIPIENT: The granting of a patent for invention must be the product of an action that constitutes a stimulus, an incentive, for the development of the industry and technological advancement. The goal is for the inventive level of man to imply a positive transformation of nature that brings economic benefits for those who exploit the ideas materialized in products or procedures.

This other requirement for patentability, like the two previously mentioned requirements of novelty and inventive level, is also regulated in a special way. Indeed, Article 5 of Decision 344 defines that an invention is susceptible to industrial application when its object can be produced or used in any type of industry, whether it is a productive activity or a service activity.

The granting of a patent for invention must be the product of an action that constitutes a stimulus, an incentive, for the development of the industry and technological advancement. The goal is for the inventive level of man to imply a positive transformation of nature that brings economic benefits for those who exploit the ideas materialized in products or procedures.

PREJUDICIAL INTERPRETATION PROCESS 26-IP-99

(ODOR CONTROL COMPOSITIONS): Industriality is the last requirement that a patent must meet; it has been explained as the ability of an invention to be usable, that is, to be materially realizable in practice. "The means proposed by the inventor must be capable of providing, with greater or lesser perfection, the industrial result sought."

Non-Compliance Action brought by the General Secretariat of the Andean Community against the Republic of Peru, alleging non-compliance with Articles 4 of the Treaty for the Creation of the Tribunal and 16 of Decision 344 of the Commission, as well as Resolution 406 of the General Secretariat.

4.1.2 The conduct indicated as constituting non-compliance and the justifications adduced by the respondent Member Country

4.1.2.1 The applicable Community regulations. The Community Legal System and second-use patents

At the time of this controversy, the field of industrial property in the General Secretariat of the Andean Community was regulated by the Common Regime established by Decision 344 of the Cartagena Agreement Commission, approved on October 21, 1993 and published in the Official Gazette No. 142, of the 29th of the same month and year.

This Decision, still in force at the date of filing the suit, regulates in its Chapter I what is related to invention patents and, in its first three sections, what is specifically related to the requirements of patentability, the holders of patents and patent applications.

Article 1 of the Decision states, verbatim:
"Member Countries shall grant patents for inventions, whether for products or procedures, in all fields of technology, provided that they are new, have an inventive level and are susceptible to industrial application."

From the analysis of the transcribed provision, it is concluded, first of all, that in the Andean Countries, with the intervention of their respective National Authorities, "**PATENTS OF INVENTION**" may be granted, whether for products or procedures in all fields of technology. The text of this Article does not imply the possibility of patenting another kind or nature of creations other than inventions, such as uses or, specifically, second uses.
On the other hand, the Article determines the requirements demanded for the patenting permitted by the regime, specifying,

specifically for this purpose, the characteristics of novelty, inventive level and susceptibility to industrial application; conditions whose definition is made, one by one, in Articles 2, 3, 4 and 5 of the Decision.

For greater precision regarding the only area of patentability agreed upon in the Community Regime, Articles 6 and 7 of the instrument determine what will not be considered an invention and clearly clarify what will not be patentable in any of the Member Countries of the Community.

Regarding the legal area constituted by the principles, conditions and requirements precisely established in the aforementioned Articles, it can be objectively concluded that the Andean legislator did not include in this context the possibility of protecting so-called second uses with a patent, as they are not considered inventions for the purposes of establishing and applying the Common Regime agreed upon by the Andean Partners for the administration of rights in this specific field.

The above seems to be confirmed by the points made in Article 6 of Decision 344, when, for example, its literal a) excludes the possibility of being considered an invention for simple discoveries and, also, according to what is established by literal f), for therapeutic or surgical methods for human or animal treatment, as well as diagnostic methods.

The Andean Common Regime, therefore, is very clear in specifying, with regard to patentability, what is susceptible to obtaining a patent and what is not.
In Section III of patent applications, on the other hand, Article 16 textually states:
"Products or procedures already patented, included in the state of the art, in accordance with Article 2 of this Decision, will not be the subject of a new patent, simply because they are attributed a use other than that originally included in the initial patent."

For this Court, it is clear from this provision that the Andean legislator determines with it an additional condition to the requirements set forth in the first Articles of Decision 344, by

excluding from the possibility of patenting, products or procedures that already enjoy the protection conferred by the Patent, ... "for the simple fact of attributing a use different to that originally included in the initial patent."

In the opinion of this Court, with the aforementioned rule the Andean Community has decided, by consensus of its Members, not to grant a new patent for what has already been patented and, provided that it is an invention, since it is based on the understanding, as has already been said, that what does not have such a character is not regulated or provided for by Decision 344.

The prohibition or exclusion enshrined in Article 16 in question contains, as basic presuppositions in the opinion of the Agency, firstly, the determination that the products or procedures for which the new protection of a patent is required are already covered by the same right and, consequently, have been placed in the state of the art by having been made accessible to the public.

It is clear to the Court that only that which is new can be protected by a patent, a principle incorporated into Community law surely with the object of encouraging research; therefore, granting State protection to products or procedures lacking novelty would be detrimental both to the stated purpose and to the social function assigned to industrial property rights.

Secondly, the simple fact of attributing a use other than that originally included in the initial patent must necessarily be understood as the consecration in Article 16 of Decision 344 of the principle that a patent may not be claimed for uses other than the invention or invention already included and protected by the initial or original patent; a prohibitive rule for the granting of invention patents, which this Court considers as part of the requirements established by the aforementioned Decision.

PRELIMINARY INTERPRETATION PROCESS 21-IP-2000

Preliminary interpretation of Articles 1, 6 paragraph b) and 7 paragraphs c) and d) of Decision 344 of the Cartagena Agreement Commission, requested by the State Council of the Republic of Colombia, First Section, Administrative Litigation Chamber. And

ex officio interpretation of Articles 17 and 29 of the same.
Plaintiff: AKTIEBOLAGET ASTRA company.
PATENT APPLICATION: "PROCEDURE FOR THE PREPARATION OF LIPASE-STIMULATED HUMAN BILE SALT DERIVATIVES AND FOR THE PREPARATION OF PHARMACEUTICAL COMPOSITIONS CONTAINING THEM".
Internal process corresponding to file No. 4879.

II. EXCLUSION FROM THE CONCEPT OF "INVENTION" OF MATERIALS THAT ALREADY EXIST IN NATURE

The exclusions from the concept of invention established in Article 6 of Decision 344 are the consequence of the application of the three objective requirements of patentability (novelty, inventive level and industrial application), so that the hypotheses determined in the aforementioned Community regulation, in one way or another, violate the requirement of novelty, are not the result of the creative activity of man or are not susceptible of being realized in a product or in an industrial process.

Materials that are found in nature and that have not been previously known or accessible to the public, in reality, are nothing more than discoveries or revelations of something existing and therefore, in addition to not being the fruit of the creative intellectual activity of a person, they ordinarily lack the susceptibility of being applied in industry.
However, if from that discovery or existing material, as a consequence of the inventive activity or effort of man, new products or procedures that have an industrial utility can be obtained, we will be faced with a true invention that may be patented as long as it does not incur in any of the express prohibitions determined in Article 7 of Decision 344.

In the field of biotechnology and genetic engineering, problems may arise regarding the patentability of inventions that refer to living matter or components of living cells that were not previously known and that, despite having existed in nature, have required human intervention to isolate or make known. Indeed, it could be argued that the isolation for the first time of living matter or its components that already exist in nature is the result of intellectual and laboratory work, comparable to any invention of a product or process. However, this Court considers

that, in application of Article 6 paragraph b) of Decision 344, biological material, cells or their components that already exist in nature, even when isolated by microbiological procedures, are not considered as "inventions", without prejudice to the fact that patents may be granted on isolation procedures, as well as on other microbiological procedures, such as those for the cultivation, selection or mutation of microorganisms or other physical-chemical procedures, but only if they comply with the objective conditions of novelty, inventive level and industrial application.

Even the exclusion of the concept of invention enshrined in Article 2, paragraph b) of Decision 344 is consistent with that provided for in the new Common Regime on Industrial Property, approved by Decision 486 of the Andean Community Commission and which will enter into force on December 1, 2000 (Article 274). In effect, in accordance with the provisions of Article 15 of this latter normative body, the whole or part of living beings as they are found in nature, nor natural biological processes, nor biological material existing in nature or that which can be isolated, including genome or germplasm, are not considered inventions.

The above does not, however, invalidate the possibility of patenting inventions relating to biological material, since the aforementioned exclusion only covers materials as they are found in nature, but not those that have been modified or obtained by means of biological procedures in which there is a significant human activity, in which case one could speak of life "created" by man with the use of biotechnology. The above is inferred not only from a restrictive interpretation of the exceptions to the concept of invention, but also from a systematic and harmonious analysis of Community regulations, which implicitly allow the claiming of inventions that refer to biological material, when it provides that the clear and complete description of the invention - which must be contained in the patent application - can be fulfilled through the "deposit of living material" (Article 13, letter c) of Decision 344).

A fortiori, new pharmaceutical and food products obtained from materials found in nature do not fall within the exclusion of the concept of invention being analyzed, since in such a case the material in its natural state would not be claimed, but rather a product that, as a consequence of man's inventive level, could be applied in industry.

Therefore, the mere fact that an invention relates to living matter or its components does not per se prevent its protection by the patent system. Contrarious sensu, the mere fact that an invention concerns biological material does not mean that it can be patented. Ultimately, everything will depend on whether the "invention" meets the objective conditions of patentability and whether the granting of a patent is not prohibited by Community law.

III. PROHIBITION OF PATENTING ANIMAL SPECIES AND BREEDS

The prohibitions on patentability established by the Common Regime of Industrial Property (Article 7 of Decision 344), unlike the exclusions of the concept of invention (Article 6 ibid.), do not constitute a derivation of the three objective requirements of patentability, because even though in principle they may be considered as inventions, however, due to reasons of public order, they are not protected by law.

Among these prohibitions, paragraph c) of Article 7 of Decision 344 prevents the granting of patents on "animal species and breeds and essentially biological procedures for obtaining them." The justification for this could be found in ethical issues - in particular, the limit of the patentability of life, of the genetic modification of animals and of altering biodiversity -, economic and even legal issues. With regard to the latter, for example, there are problems related to the exhaustion of rights in the case of genetically modified living beings that can multiply.

However, the prohibition of patenting animal species and breeds, as well as the other exceptions to the general principle of granting patents for inventions "in all fields of technology" (Article 1 of Decision 344), must therefore be interpreted restrictively, so that they do not become an obstacle to

industrial research and development.

Thus, within the concept of animal species and breeds referred to in Article 7, letter c) of Decision 344, living beings that can be obtained by microbiological procedures are not included, so that microorganisms and among them, cells, bacteria, mycoplasmas, would not be excluded from patentability, if they are not pre-existing matter in nature and as long as they can be used in industry, are the result of an inventive level and, in addition, do not violate public order, morality or good customs.

On the other hand, as already stated, microbiological procedures, including those for the selection, isolation, cultivation or mutation of microorganisms, as well as non-biological procedures, as long as they meet the objective requirements for patentability, may be patented, since they are not the result of the forces of nature, but require human intervention to carry them out. However, those procedures in which there is no human activity (exclusively biological procedures - or "natural biological" as they are called in Article 15 paragraph b) of Decision 486-), or if there is human activity, it is not sufficiently relevant to influence the results obtained (essentially biological procedures - Article 7 letter c) of Decision 344-) do not enjoy protection. Patentability will therefore be conditioned by the intensity or relevance of the technical intervention of man in the various stages of the procedure.

PREJUDICIAL INTERPRETATION PROCESS 43-IP-2001

Title - patent of the utility model called "COMPOSITE TANK"
Extract The Court is competent to interpret, by means of a prejudicial procedure, the rules that make up the legal system of the Cartagena Agreement, in order to ensure its uniform application in the territory of the Member Countries, in accordance with the provisions of Article 32 of the Treaty of its creation.

PREJUDICIAL INTERPRETATION PROCESS 92-IP-2013

Title - Patent: "NEW ANTIDIABETIC COMPOUND BASED ON MALEIC ACID SALTS"

Extract The case of polymorphs has recently generated controversies in the field of invention patents, in particular, the doubt of whether they are patentable or not, so the present case before this Court gives it the opportunity to rule on this issue:

A polymorphic compound is one that, due to its properties, can undergo transformations and take on alternative forms despite being made up of the same type of molecules. In the dictionary of the Royal Spanish Academy, polymorphism is defined as the "quality of that which has or can have different forms." The meaning in biochemistry means "property of nucleic acids and proteins that can be presented in various molecular forms. It is an important phenomenon in genetics and molecular pathology," while in the field of chemistry it is considered as a "property of elements and their compounds, which can change form without changing their nature." Polymorphism can be defined as the capacity of a substance to exist in two or more crystalline phases that present different arrangements and/or conformation of the molecules in the crystal.

Within the complex debate there are two doctrinal positions. On the one hand, the position that affirms that polymorphs are a discovery. On the other hand, there are those who point out that polymorphs are not discoveries, so they are patentable.

The debate on the patentability of these compounds revolves around the demonstration of the conditions of "novelty" and "inventive step" (Articles 1 and 4 of Decision 344 of the Cartagena Agreement Commission). The difficulty in meeting these requirements lies in the fact that a polymorph is obtained from a compound that is already known but has undergone transformations.

The questions that arise are: Is this a new component? Has this novelty been the result of a technical advance or is it simply a discovery? If the new compound is the result of a technical advance, does it meet the inventiveness criterion?

i) On the one hand, the patentability of a polymorph has been accepted by various national, regional or international offices. Thus, in the WIPO sphere, the most striking example is found in the various generations of the Ritonavir polymorph (a compound that combats HIV) that have been patented by Abott Laboratories in the first three cases and by Transform Pharm and Ranbaxy Laboratories subsequently. This position indicates that the process by which a polymorph is found is not always predictable or obvious. It is therefore essential that the applicant clearly disclose the procedural steps by which the polymorph was obtained, as well as the specification of the location and orientation of the polymorph molecules.

ii) On the other hand, according to the jurist Carlos Correa, polymorphism is a natural property, so polymorphs are not "created" or "invented"; they are normally discovered as part of routine experimentation in drug formulation. They are the result of the conditions under which a compound is obtained. Any compound that presents polymorphism will naturally tend to its most stable form, even without any kind of human intervention.

Independent patent applications on polymorphs have become increasingly frequent and controversial, since their patents can be used to obstruct or delay the entry of generic competition. Polymorphs can be considered to belong to the prior art and, therefore, are not patentable if they are inevitably obtained following the process described in the original patent of the active ingredient. Furthermore, when polymorphism is discovered, the possibility of discovering new, different crystalline forms is obvious.

According to this position, polymorphism is an inherent property of matter in its solid state. Polymorphs are not created, but discovered. Patent offices must be aware of the possible unjustified extension of the protection period, arising from the successive patenting of the active ingredient and its polymorphs, including hydrates/solvates. Processes for obtaining polymorphs may be patentable in some cases, if they prove to be novel and meet the inventive step requirement.

Patenting exceptions include discoveries. The history of Ritonavir Form II is an extremely interesting example, which demonstrates the spontaneous appearance of polymorphic forms, without the intervention of man.

Why should a request for new crystalline forms not be granted?

In response to this question, Susana Elida Piatti answers by pointing out the following:
"(...)
"Polymorphism" (from the Greek poly = many, morph = forms) is a property that matter presents in a solid state. Since the 17th century, scientists have known of solid compounds that presented different crystalline forms. Later, in the first half of the 20th century, German scientists, dedicated to crystallography, agreed in stating that polymorphism was an inherent property of matter in a solid state.
This is how Buerger and Bloom expressed in 1937 that "Polymorphism is an inherent property of the solid state that is presented by the great majority of drugs used in the pharmaceutical industry (active ingredients and excipients)". In other words, it is not an invention made by man but a property of the substance.
Currently, it is considered that all solid compounds would present polymorphic forms; only in the pharmaceutical area has it been determined that more than 80% of known active ingredients and excipients present two or more perfectly identified crystalline forms.

(...)
Polymorphism, as its name indicates, refers to the different "forms" that substances in a solid state can adopt. This phenomenon is characterized by the ability of substances in a solid state to exist in two or more crystalline phases.

(...)
Polymorphism is characterized, as mentioned, by the ability of substances in a solid state to exist in two or more crystalline phases, which have a different arrangement or conformation of the molecules in the solid state, a fact that can produce a profound effect on the properties of the final crystalline product, in relation to its solubility or ease of manipulation.

(...)
The growth of crystals is affected by the environmental conditions of their surroundings, temperature, cooling rate, nucleation rate and growth along different axes.
(...)
In an article published in Pharmaceutical Sciences, it is considered that the development of a new crystalline form is an obvious step, lacking inventive merit in the pharmaceutical activity. This is a necessary step in any product formulation process, in the pre-formulation stage, a process devoid of inventive character.
(...)".

iii) Indeed, there are many patent disputes over the issue of polymorphs:
"These differences, sometimes small, in the properties of the polymorphs of a drug (in the broad sense of the term) have often led the pharmaceutical industry to consider each of them as an independent and potentially patentable drug, especially if each form has a different capacity for pharmacological activity. This fact has created frequent conflicts between pharmaceutical laboratories that dispute the legitimacy of each polymorph.

The well-known case of Glaxo Wellcome against Novopharm for the defense of the patent for ranitidine3, an antiulcer drug developed by the company Glaxo in 1970, was widely discussed. In its first patent, the process of synthesis and industrial production of the drug was defended, characterizing the product by means of infrared spectroscopy and X-ray diffraction by powder method. In October 1981, Glaxo discovered that a new polymorph was formed during drying of ranitidine, different from the one described in the 1971 patent, so 4 years later it patented this second polymorph. In 1997, when the 1970 patent expired, the pharmaceutical company Novopharm tried to distribute its own ranitidine, but Glaxo argued that it could infringe the patent for the second polymorph, which did not expire until 2002. In this conflict, the courts ruled in favor of Novopharm, arguing that although both polymorphs had some different physicochemical properties, they could not be considered independent drugs because they were both therapeutically equivalent. This led Novopharm and other pharmaceutical companies to begin distributing the generic version of the antiulcer drug.

This example can serve to illustrate how fine-tuned it is to be in matters of pharmaceutical polymorphism, not only because of the health aspects involved, but also because of the macroeconomic ones."

iv) In the scope of the Andean Community, Decision 344 does not establish any impediment to the patentability of polymorphs, leaving administrative authorities with complete freedom to resolve this issue.

The National Patent Office must carry out a very specific and thorough analysis in order to determine whether a polymorph has an inventive level or not, being very careful in these cases, since it cannot validate that the rights of invention patents extend beyond the time determined in the Andean regulations. Therefore, safeguarding the right to health and access to medicines, it is the responsibility of the national offices to technically and scientifically determine each of the patentability requirements of polymorphs. Consequently, polymorphs may then be subject to protection, but only to the extent that the requirements of Articles 1 and 4 of Decision 344 are met. To do so, the interested party must clearly and exhaustively explain in the claims why the application in question constitutes a novelty and presents an inventive step, so it will be up to the National Patent Office to analyze each case.

PREJUDICIAL INTERPRETATION PROCESS 066-IP-2013

Title - CRYSTAL MODIFICATION OF AN ACTIVE SUBSTANCE OF A MEDICINE

Extract: The National Patent Office must carry out a very specific and thorough analysis in order to determine whether a polymorph has an inventive level or not, being very careful in these cases, since it cannot validate that the rights of invention patents extend beyond the time determined in the Andean regulations. Therefore, safeguarding the right to health and access to medicines, it is the responsibility of the national offices to technically and scientifically determine each of the patentability requirements of the polymorphs.

The Andean regulations on invention patents do not prevent a patent from being granted to a polymorph. These compounds may be protected, but only to the extent that the requirements of

Articles 1 and 4 of Decision 344 are met. To do so, the interested party must clearly and exhaustively explain in the claims why the application in question constitutes a novelty and presents an inventive step, so it will be up to the National Patent Office to analyze each case.

PREJUDICIAL INTERPRETATION PROCESS 096-IP-20131

Title - Patent for invention: "CRYSTALLINE MACROLIDES"
Extract: The National Patent Office must perform a very specific and thorough analysis in order to determine whether a polymorph has an inventive level or not, being very careful in these cases, since it cannot validate that the rights of invention patents extend beyond the time determined in the Andean regulations. Therefore, safeguarding the right to health and access to medicines, it is the responsibility of the national offices to technically and scientifically determine each of the patentability requirements of the polymorphs.

The Andean regulations on invention patents do not prevent a patent from being granted to a polymorph. These compounds may be protected, but only to the extent that the requirements of Articles 1 and 4 of Decision 344 are met. To do so, the interested party must clearly and exhaustively explain in the claims why the application in question constitutes a novelty and presents an inventive step, so it will be up to the National Patent Office to analyze each case.

PREJUDICIAL INTERPRETATION PROCESS 604-IP-2016

Title - Patent Application "Polymer of 4-2-4-1-(2- ETHOXYETHYL)-1H- BENZIMIDAZOLE-2-IL-1-PIPERIDINYL ETHYL)-a,a-DIMETHYL-BENZENEACETIC ACID"

Extract
4. Patentability of Polymorphs
4.1. In the present case, it has been controversial whether the object of a patent dealing with a polymorph can or cannot be patentable in this sense, the present section is developed.

4.2. In this regard, a polymorphic compound is one that due to its properties can undergo transformations and take alternative forms despite being constituted by the same type of molecules. The meaning in biochemistry means "property of nucleic acids and proteins that can be presented in various molecular forms. It is an important phenomenon in genetics and molecular pathology, while in the field of chemistry it is considered a "property of elements and their compounds, which can change form without changing their nature." Polymorphism can be defined as the ability of a substance to exist in two or more crystalline phases that present different arrangements and/or conformation of the molecules in the crystal.

4.3. Continuing with the meanings, the term "polymorphism" (from the Greek poly = many, morph = forms) refers to a property that is presented by matter in a solid state. Since the 17th century, scientists have known solid compounds that have different crystalline forms. Later, in the first half of the 20th century, German scientists, dedicated to crystallography, agreed in stating that polymorphism was an inherent property of matter in a solid state. This is how Buerger and Bloom expressed in 1937 that "Polymorphism is an inherent property of the solid state that is presented by the great majority of drugs used in the pharmaceutical industry (active ingredients and excipients)". In other words, it is not an invention made by man but a property of the substance.

4.4. Within this context, there is a debate of two criteria expressed by patent offices worldwide and supported by doctrine, those that affirm that polymorphs are a discovery and therefore are not patentable and the others that affirm the opposite.

4.5. On the one hand, the patentability of a polymorph has been accepted by various national, regional and international offices. Thus, in the WIPO sphere, the most striking example is found in the various generations of the Ritonavir polymorph (a compound that fights HIV) that have been patented by Abott Laboratories in the first three cases and by Transform Pharm and Ranbaxy Laboratories subsequently. This position indicates that the process by which a polymorph is found is not always predictable or obvious. It is therefore essential that the applicant clearly discloses the procedural steps by which the polymorph was

obtained, as well as the specification of the location and orientation of the polymorph molecules.

4.6. On the other hand, according to the jurist Carlos Correa, polymorphism is a natural property, so polymorphs are not "created" or "invented"; they are normally discovered as part of routine experimentation in drug formulation. They are the result of the conditions under which a compound is obtained. Any compound that presents polymorphism will naturally tend to its most stable form, even without any kind of human intervention.

4.7. Independent patent applications on polymorphs have become increasingly frequent and controversial, since their patents can be used to obstruct or delay the entry of generic competition. Polymorphs can be considered to belong to the prior art – and therefore not patentable – if they are inevitably obtained following the process described in the original patent for the active ingredient. Furthermore, when polymorphism is discovered, the possibility of discovering new, different crystalline forms is obvious.

4.8. According to this position, polymorphism is a property inherent to matter in its solid state. Polymorphs are not created, but discovered. Patent offices must be aware of the possible unjustified extension of the period of protection, arising from the successive patenting of the active ingredient and its polymorphs, including hydrates/solvates. Among the exceptions to patenting are discoveries. The history of Ritonavir Form II is an extremely interesting example, which shows the spontaneous appearance of polymorphic forms, without the intervention of man.

4.9. The debate on the patentability of these compounds revolves around the demonstration of the conditions of "novelty" and "inventive level" (Articles 16 and 18 of Decision 486 of the Commission of the Andean Community). The difficulty in meeting these requirements lies in the fact that a polymorph is obtained from a compound that is already known but has undergone transformations. Therefore, it is essential that the applicant clearly describes the procedural steps by which the polymorph was obtained, as well as the specification of the location and

orientation of the polymorph molecules.

4.10. Decision 486, an Andean Community regulation, does not establish impediments to the patentability of polymorphs, so the administrative authorities are free to resolve this issue.

4.11. In this regard, this Court has considered that the national patent office must carry out a very specific analysis in order to determine whether a polymorph has an inventive level or not, since it cannot validate that the rights of invention patents extend beyond the time determined in the Andean regulations. Therefore, in order to safeguard the right to health and access to medicines, it is the responsibility of the national offices to technically and scientifically determine each of the patentability requirements of polymorphs.

4.12. For the reasons stated above, polymorphs may or may not be subject to protection, but only to the extent that the requirements demanded by Articles 14 and 18 of Decision 486 of the Andean Community Commission are met. To do so, the interested party must clearly and exhaustively present the claims and their analysis will be on a case-by-case basis.

PREJUDICIAL INTERPRETATION PROCESS 550-IP-2018

Title - Utility model patent "METAL FORMWORK FOR THE CONFORMATION OF WALLS, COLUMNS, BEAMS AND FLOOR PLATES"

Extract

1. Definition of utility model. Rules for invention patents applicable to utility models
2. Patentability requirements: Novelty.

PREJUDICIAL INTERPRETATION PROCESS 571-IP-2018

Title - Utility model "IMPROVEMENTS IN FLANGES FOR FIXING SANITARY FIXTURES"

Extract

1. The principle of indispensable complementation on matters of Industrial Property.

2. Definition of utility model. Rules for invention patents applicable to utility models.
3. Ownership of the utility model.
4. Answer to the question formulated by the consulting Chamber.

PREJUDICIAL INTERPRETATION PROCESS 129-IP-2019

Title - Utility model patent "INTELLIGENT PHOTO CELL FOR REMOTE MANAGEMENT AND CONTROL IN PUBLIC LIGHTING SYSTEMS"

Extract

1. Definition of utility model. Rules for invention patents applicable to utility models
2. Use of a utility model in good faith by an unauthorized third party before the priority date or filing date of the application.

PREJUDICIAL INTERPRETATION PROCESS 159-IP-2020

Title - Utility model application "TWO-WAY CONNECTOR AT 90 DEGREES"

Extract

1. Definition of utility model. Rules for invention patents applicable to utility models.
2. Patentability requirements: novelty, inventive level and susceptibility to industrial application.

PREJUDICIAL INTERPRETATION PROCESS 12-IP-1998

PATENT OF INVENTION: "COMPACT DETERGENT COMPOSITIONS WITH HIGH CELLULASE ACTIVITY".

Susceptibility of Industrial Application. - (Article 5)

Article 5 of the same Decision with reference to "industrial application" tells us that an invention is susceptible of industrial application when its object can be produced or used in any type of industry, understood as any productive activity, including services.

With this requirement, it is intended that the inventive level of the human being has as its object an action of man on nature, highlighting the industrial process and technological advancement whose economic benefits will be obtained for those who exploit them, obeying the fact that an idea for human action is only useful if it can be put into practice.

Thus, the granting of patents of invention must be an action that constitutes a true stimulus to encourage the development of industry and technology.

It should also be noted that this rule does not require that the invention for which a patent is being requested be applied industrially, but rather that during the examination carried out by the technician, it is observed whether or not it is susceptible to industrial application. The Court has referred to this issue in the judgment issued in relation to Case 11-IP-95.

PREJUDICIAL INTERPRETATION PROCESS 26-IP-1999

Patent: "ODOR CONTROL COMPOSITIONS CONTAINING CARBON".

2.3. Susceptibility of Industrial Application.

Industrial application is explained in Article 5 of Decision 344, which states:
"An invention shall be considered to be susceptible of industrial application when its object can be produced or used in any type of industry, industry being understood as that related to any productive activity, including services."
Industriality is the last requirement that a patent must meet; it has been explained as the ability of an invention to be usable, that is, to be materially realizable in practice. "The means proposed by the inventor must be capable of providing, with greater or lesser perfection, the industrial result sought."

PREJUDICIAL INTERPRETATION PROCESS 76-IP-2008

Patent: "PHARMACEUTICAL COMPOSITION OF THIAZOLIDINDIONE AND SULPHONYLUREA".

C. INVENTIVE LEVEL IN RELATION TO THE MIXTURE OR COMBINATION OF KNOWN ELEMENTS

Given that INDECOPI argued that a person versed in the subject, in accordance with the information and elements pre-existing in the state of the art, could easily obtain the compound that is intended to be patented, it is necessary to refer to the inventive level in

relation to the mixture or combination of known elements.

In relation to the requirements pertaining to the inventive level and the novelty of the invention, there are some doubtful cases that deserve special analysis, since when applying the rules cited above it is not so easy to determine its novelty and inventive level.

One of these cases is the one related to the combination or mixture of known means or elements, which requires that the examiner first establish whether what is being patented is a combination or a simple aggregation of elements. To this end, it is worth mentioning that:
"The combination of elements could be distinguished from simple aggregation. The first is the synergy of the elements in such a way that a new one with different properties is generated, in such a way that the new element is only the result of said combination without the elements being able to be determined separately; the second occurs when the elements remain intact as to their fundamental effect and, therefore, are clearly distinguishable from each other, that is, there is no intrinsic synergy or combination of the elements."

In relation to the combination or mixture of known elements, a conclusion cannot be reached a priori, since one cannot instantly predict a lack of inventive level in one or the other, because in both cases it is always necessary to analyze the specific case. Daniel R. Zuccherino, in his book "PATENTS OF INVENTION", deals with the subject and recognizes the complexity in determining a new result:

"*It is recognized that there is an invention when already known means are used, but combined for the first time in such a way that their combination results in a result different from that given by each of the means, or by other known combinations. Of course, in practice, it is sometimes difficult to determine whether there is a 'new result', because this may even consist of a better result than the known one (for example, the sound quality of a compact disc with a vinyl record). If the contribution implies an advance and some novel and useful contribution has been made, it is considered that there is an invention.*"

Thus, the respective patent office, when carrying out an analysis of the inventive level of aggregations or combinations or mixtures of known elements, must establish whether, with the state of the art at the time of the application, said product, even if it is a combination of known elements, is not obvious or evident to an average person skilled in the art. It is not in keeping with the spirit of the patent regulations that, based on a simple analysis consisting of whether the product is generated from known elements, it is concluded per se that it does not have an inventive level. A combination of known elements, depending on the particular case, must be novel, with an inventive level and susceptible to industrial application, that is, it must meet the three requirements established by the Community standard, without necessarily having to carry out said analysis in relation to each component when it comes to patenting this type of mixtures or combinations.

PRELIMINARY INTERPRETATION PROCESS 13-IP-2010

IMPROVED PHARMACEUTICAL FORMULATIONS OF RITONAVIR AND RITONAVIR IN COMBINATION WITH OTHER HIV PROTEASE INHIBITORS

3.4. INVENTIVE LEVEL IN RELATION TO KNOWN PROCEDURES

Taking into account that the claim refers to the fact that the invention, although derived from a known procedure, has an inventive level, it is pertinent to mention the inventive level in relation to known procedures.

In relation to the requirements related to the inventive level and the novelty of the invention, there are some doubtful cases that deserve special analysis, since it is not so easy to determine their novelty and inventive level. One of these cases is the inventive level in relation to known procedures.

In relation to this issue, one cannot reach a priori a conclusion that the invention lacks an inventive level, because it is always necessary to analyze the specific case. Daniel R. Zuccherino, in his book "PATENTS OF INVENTION", deals with the topic of inventive level in relation to the combination or mixture of known elements, applicable to this case, and recognizes the

complexity in determining a new result:

“It is recognized that there is an invention when already known means are used, but combined for the first time in such a way that their combination results in a result different from that given by each of the means, or by other known combinations. Of course, in practice, it is sometimes difficult to determine whether there is a “new result”, because this may even consist of a better result than the known one (for example, the sound quality of a compact disc with a vinyl record). If the contribution implies an advance and some novel and useful contribution has been made, it is considered that there is an invention.”
Thus, the respective patent office, when carrying out an analysis of the inventive level of a known procedure, must establish whether with the state of the art at the time of the application, said product, even if by said already known procedure, is not obvious or evident to an average technician in the field. The above since by applying known procedures, unexpected results can be obtained for a person normally versed in the art.

An invention using known procedures, depending on the particular case, must be novel, with an inventive level and susceptible to industrial application, that is, it must meet the three requirements established by the community standard.

The Court of Justice of the Andean Community has held the following on the subject:

Novelty is not a requirement that must be met by each and every one of the components that make up the invention, and all of these elements may even be known individually, if combined together they give rise to an object or a procedure previously unknown. In fact, no invention appears out of nowhere; on the contrary, all innovation requires the application of knowledge and objects previously created or discovered by humanity, which will constitute the "raw material" to develop a new product or procedure.

In this sense, the invention constitutes a derivation of the state of the art, but to qualify its patentability, it is

necessary to determine whether said derivation is not obvious to a person normally versed in the technical subject. Therefore, an additional requirement to that of novelty arises: the inventive level, from which it follows that the invention, in addition to not being obvious to an average expert, must always be the result of a creative activity of man, without this meaning that in order to achieve the proposed technical rule, common or already known procedures or methods in the corresponding technical area cannot be used. Specifically in the area of chemical and biotechnological inventions, it frequently happens that by applying known procedures, unexpected results can be obtained for a person normally versed in the matter. Therefore, the judgment of the inventive level cannot be made with general criteria, but will depend on the special circumstances of each case.

(Process No. 21-IP-2000. Preliminary Interpretation of October 27, 2000). It is worth noting that the Andean patent regulations do not establish anything about the inventive level in relation to known procedures, as other legislations do, but this does not mean, as already noted, that patent offices can lightly analyze the inventive level in cases to deny the patent of invention.

PREJUDICIAL INTERPRETATION PROCESS 102-IP-2012

"CRYSTALLINE MODIFICATION OF A CYCLIC DIPSEPTIDE WITH IMPROVED ACTIVITY".

3. On the susceptibility of industrial application.

Likewise, for an invention to be protected through a patent it must be susceptible of industrial application, that is, it must be able to be produced or used in any productive or service activity, as stated in Article 19 of the Community regulation being interpreted. This requirement of the invention finds its justification in the fact that the granting of a patent stimulates industrial development and growth, providing economic benefits to those who exploit it; for this reason, only inventions that can be put into practice are susceptible to patentability.

PREJUDICIAL INTERPRETATION PROCESS 589-IP-2016

Patent for an invention called "Organic Compounds"

Industrial Application. - It means that an invention can be produced or used in any productive or service activity. This requirement of the invention finds its justification in the fact that the granting of a patent stimulates industrial development and growth, providing economic benefits to those who exploit it, therefore, only those inventions that can be put into practice are susceptible to patentability.

OPINION OF THE GENERAL SECRETARIAT OF THE ANDEAN COMMUNITY 04-2013

It is not permitted to object to novelty based on a common general knowledge of the technique that may be known by the examiner; because such knowledge must be justified with documents.
As a consequence of the above, although in the application of the principle of supremacy of Andean Community Law, the community rule prevails over the internal rule, in accordance with the principle of indispensable complementarity, the national rule must be applied when there is a gap or when the community rule does not regulate a certain situation.

In this sense, since Decision 486 does not establish the way in which a common general knowledge or an oral description of the state of the art must be accredited before the competent authority, the Republic of Colombia is authorized to regulate such aspect and may request that it be through a document. Therefore, there is no basis for determining non-compliance with Article 16 of Decision 486.

2. DECISIONS OF THE BOARDS OF APPEAL OF THE EPO

Decision of the Enlarged Board of Appeal G 3/08

Extract

Patentability of computer programs under the European Patent Convention (EPC)

Decision of the Board of Appeal T 410/96

Title Method of defining documents using a list-directed expression architecture

Extract

Claims: clarity of the 'means to' in the claim

Claims: reference in a claim to another claim in a different category.

Board of Appeal Decision T 1173/97

Title Asynchronous resynchronization of a confirmation procedure

Extract

Exclusion from patentability of computer program product (not in all circumstances)

A computer program product is not excluded from patentability under Article 52 (2) and (3) EPC if, when executed on a computer, it produces an additional technical effect that goes beyond the "normal" physical interactions between the program (software) and computer (hardware).

Board of Appeal Decision T 244/00

Title Remote control apparatus for electronic appliances

Extract

Step of invention – no

The graphical design of menus is, as a rule, not a technical aspect of a menu-based control system. The practical use of such menus is also not really a problem faced by the person skilled in the art, in his role as technical expert.

Decision of the Board of Appeal T 641/00 (COMVIK)

Title Method in mobile telephone systems in which a subscriber identity module (sim) is assigned to at least two identities which are selectively activated by the user

Extract

Step of invention (no)

Problem and solution approach: treatment of non-technical aspects

I. An invention consisting of a mixture of technical and non-technical features and having a technical character as a whole shall be assessed with respect to the inventive step requirement taking into account all those features which contribute to such technical character, whereas features which make no such contribution cannot support the presence of inventive step.

II. Although the technical problem to be solved should not be formulated so as to contain pointers to the solution or partially anticipate it, the mere fact that some feature appears in the claim does not automatically exclude it from appearing in the formulation of the problem. In particular, where the claim relates to an objective to be achieved in a non-technical field, this objective may legitimately appear in the formulation of the problem as part of the framework of the technical problem to be solved, in particular as a constraint to be complied with.

Decision of the Board of Appeal T 643/00

Title Image processing apparatus and method therefor

Extract

Patentable invention (yes)

Novelty (yes)

Inventive step (yes)

The arrangement of menu items (or images) on a screen may be determined by technical considerations. Such considerations may aim to enable the user to manage a technical task, such as searching for and retrieving images stored in an image processing apparatus, in a more efficient or faster manner, even if this is an assessment by the user at a mental level. Although such an assessment per se does not fall within the meaning of "invention" under Article 52 of the EPC, the mere fact that mental activities are involved does not necessarily qualify the subject matter as non-technical, since any technical solution ultimately aims to

provide tools that serve, assist or replace human activities of different kinds, including mental ones.

Decision of the Board of Appeal T 619/02

Title Method of evaluating odors

Extract

Methods of odor selection: mental acts only (no) – commercial methods (no) – technical character (no: methods devoid of technical aspects, non-technical aesthetic selection)

Methods of making scented products with selected odor: technical character (yes) – inventive step (no: no objective problem of a technical nature solved on the prior art)

Decision of the Board of Appeal T 858/02

Title Structured voice mail messages

Extract

Presentation of information – no

1. When considering the nature or category of a claimed invention, attention should be paid to the essence of what is claimed, rather than just taking into account how the claimed subject matter is designated, which may be misleading.
2. An electronic message is not automatically excluded from patentability under Article 52(2)(d) EPC as a presentation of information. This will depend on whether the message is defined by its structure or by its content.

Board of Appeal Decision T 914/02

Title Method for determining charge disposition of nuclear core

Extract

Method of performing mental act excluded from patentability yes
Having technical character is an implicit requirement of the EPC which an invention within the meaning of Article 52(1) EPC must fulfil. However, the involvement of technical considerations is not sufficient for a method that can be carried out exclusively mentally to have technical character. Technical character may be provided through the technical implementation of the method, which results in the method providing a tangible technical

effect, such as the provision of a physical entity as the resulting product or a non-abstract activity, such as through the use of technical means.

Decision of the Board of Appeal T 172/03 (RICOH)

Title System and method of order management taking into account the budgetary limit

Extract

Inventive step (no)

1. The term "state of the art" in Article 54 EPC must be understood, in accordance with the French and German texts, as "state of the technology", which in the context of the EPC does not include the state of the art in commercial and business methods. The term "all" in Article 54 (2) EPC must be understood as referring to that type of information which is relevant to some field of technology.

2. It follows from these considerations that anything which is not related to any technological field or from which, by virtue of its informative character, a person skilled in the art would expect to obtain any technically relevant information, does not belong to the state of the art to be considered in the context of Articles 54 and 56, even if it had been made available to the general public before the relevant priority date (see points 8 to 10 of the reasons).

Decision of the Board of Appeal T 258/03

Title Automatic auction method

Extract

Presence of an invention – method involving technical means (yes)

Inventive step – treatment of non-technical aspects

A method involving technical means is an invention within the meaning of Article 52(1) EPC (as opposed to Decision T 931/95 – Pension benefit system control / PBS PARTNERSHIP) (see points 4.1 to 4.4 of the reasons).

II. Method steps consisting of modifications of a business scheme and aimed at circumventing a technical problem rather than solving it by technical means cannot contribute to the technical character of the claimed subject matter (see point 5.7 of the reasons).

Decision of the Board of Appeal T 928/03

Title Video game system and storage medium for storing programs for use in the video game system

Extract

Display of a possibly hidden graphical indicator in an interactive video game – exclusively addressing a mental process (no)
Shape of the graphical indicator – purely aesthetic creation (yes)
Specific implementation of the requirements of the rules of the game – technical contribution (yes)
Step of invention (yes)

Decision of the Board of Appeal T 424/03

Title Data transfer with expanded clipboard formats

Extract

Application filed late in response to objections – admitted (yes)
Method of operating a computer – excluded as a computer program (no)
Novelty/inventive step (yes)
1. The category of claim for a computer-implemented method is distinguished from that for a computer program. Although a method, in particular a method of operating a computer, can be implemented with the aid of a computer program, a claim relating to such a method does not claim a computer program in the category of a computer program (point 5.1 of the reasons).
2. A computer-readable medium is a technical product and therefore has a technical character (point 5.3 of the reasons).

Decision of the Board of Appeal T 154/04

Title Method for estimating product distribution.

Extract

Invention requirement – method, main application (no)
Invention requirement – method, auxiliary application 1 (yes)
Inventive step – system, main and auxiliary applications 1 to 3 (no) Amendments – claim 1, auxiliary applications 4 and 5 (inadmissible) Referral for further prosecution (rejected) Referral to the Enlarged Board of Appeal (rejected)
Business research methods are excluded "as such" from patentability under Article 52 (2)(c) and (3) EPC.

II. The collection and evaluation of data as part of a business research method does not convey technical character to the business research method if such steps do not contribute to the technical solution of a technical problem.

Decision of the Board of Appeal T 306/04

Title Finite capacity automated programmer

Extract

The mere possibility of fulfilling a technical purpose or solving a technical problem is not sufficient to avoid exclusion under Article 52 (2) and (3) EPC

Decision of the Board of Appeal T 388/04

Title A method of responding to mail returned to a sender as undeliverable

Extract

Patentable inventions: business activity, scope of exclusion

1. The extent to which subject matter or activities are excluded from patentability under Article 52(2) and (3) EPC is theoretically distinct from the question of inventive step and can be considered independently of it.
2. Subject matter or activities that are excluded from patentability under Article 52(2) and (3) EPC remain so even when they involve the possibility of making use of unspecified technical means.
3. Subject matter or activities may be excluded from patentability under Article 52(2) and (3) EPC even when they have a practical utility.

Decision of the Board of Appeal T 1161/04

Title Rebalancing of indication for a capitalization-weighted stock market index

Extract

Step of invention (no)

Decision of the Board of Appeal T 1351/04

Title Method and apparatus for searching files and method and device for creating index files

Extract

Method involving technical means (yes)

Novelty, step of invention (yes)

An index file containing management information to be used for searching a file is a technical means, since it determines the way in which the computer searches for information, which is a technical task. Therefore, a computer-executable method for creating such an index file can be considered as a method of manufacturing a technical means, which is also technical in nature.

Decision of the Board of Appeal T 471/05

Title An optical system restricting aberrations within the maximum image volume

Extract

Right to patent protection for a method of designing an optical system: main and first auxiliary applications (no: subject matter for which protection is sought not limited to physical or technical implementations) – second auxiliary application (yes)

Novelty and inventive step – second auxiliary application (yes)

Decision of the Board of Appeal T 1063/05

Title An apparatus for measuring the characteristics of a material flowing through the apparatus and a method for fixing a driving means to at least one conduit of an apparatus for measuring the properties of a material flowing through said at least one conduit.

Extract

Inventive level (yes)

Board of Appeal Decision T 1147/05

Title System and method for providing information on environmental impact, recording medium recording information and computer data signal

Extract

Inventive level (no)

Referral of a question to the Enlarged Board of Appeal (rejected)

Board of Appeal Decision T 1567/05

Title Apparatus for indicating the strength of building structure and recording medium for strength indication program

Extract

Color selection – technical effect (no)
Inventive level (no)

Board of Appeal Decision T 1227/05

Title Method for generating a series of random numbers from a 1/f noise

Extract

I. Computer-implemented method with mathematical steps for simulating the performance of a circuit subject to 1/f noise – technical character (yes) Technical purpose undefined – suitable for clarity (no)
Simulation of a circuit subject to 1/f noise constitutes a suitably defined technical purpose for a computer-implemented method functionally limited to that purpose (point 3.1).

II. Specific technical applications of computer-implemented simulation methods must be considered in themselves as modern technical methods which form an essential part of the manufacturing process and precede actual production, mainly as an intermediate step. In that sense, a technical effect cannot be denied to such simulation methods simply because they do not yet incorporate the physical end product (point 3.4.2).

Decision of the Board of Appeal T 1029/06

Title Method and apparatus for estimating environmental impact

Extract

Steps for estimating environmental impact: excluded from patentability (yes) Display of icons: inventive (no)

Decision of the Board of Appeal T 1143/06

Title Data selection system and method therefor

Extract

Step of invention: treatment of features relating to a presentation of information

Decision of the Board of Appeal T 1784/06

Title Method and computer program product for classifying and linking data records and a classification system

Extract

Comvik approach: interrelation of Article 52 (1) (2) (3) EPC and Article 56 EPC 1973 (yes)
Referral of questions to the Enlarged Board of Appeal (no)
Step of invention (no)

Decision of the Board of Appeal T 354/07

Title Method and device for transferring software programs to a target platform using an EDP system

Extract

Inventive step – no
Conceptual processes and meta-methods of software development generally do not have any technical features relevant for patentability and therefore cannot justify the inventive step, unless there is a direct causal relationship with a technical effect relevant for the solution of a technical problem that can be demonstrated (see point 2 and following of the reasons for the decision).

Decision of the Board of Appeal T 336/07

Title Multi-game electronic poker with the hand face up on the bottom row

Extract

Inventive step: all applications (no)
Mix of technical and non-technical features
Rules for playing games
1. The mere fact that the subject matter, which is per se excluded under Article 52(2) C) EPC, is technically implemented

cannot form the basis of the inventive step. The inventive step may be based solely on the particular manner of implementation of such subject matter. It is therefore necessary to ask how the per se excluded subject matter (e.g. a game or a business method) is implemented (reasons 2.4).

2. A consideration of the particular manner of implementation should focus on any additional technical advantage or effect associated with the specific implementation features beyond the effects and advantages inherent in the excluded subject matter (reasons 2.5).
3. A set of game rules defines a regulatory framework agreed between players and concerning conduct, conventions and conditions that are meaningful only in a game context. It is perceived as such by the players involved and serves the explicit purpose of playing a game. As such an agreed framework, it is a purely abstract mental construct, although the method and means for carrying out the game in accordance with such a set may be technical in nature (reasons 3.3.1).

Decision of the Board of Appeal T 1358/09

Title Classification method and apparatus

Extract

Step of invention – (no)

Decision of the Board of Appeal T 509/07

Title Methods for generating sets or series of images with imperceptibly different images, systems therefor and applications thereof

Extract

Main application not admitted to the appeal procedure Treatment of the non-technical problem described in the application.

Board of Appeal Decision T 528/07

Title Collaborative portal system for business launch centers and other environments

Extract

TRIPS member states are free to adopt different standards as regards inventive step (see point 2).

Board of Appeal Decision T 12/08

Title Gaming machine and storage medium therefor

Extract

Inventive step (yes)

Rules for playing

Board of Appeal Decision T 1539/09

Title Programming system

Extract

Inventive step: both applications (no)

The activity of programming, in the sense of formulating program code, is a mental process, at least insofar as it does not serve in a practical way to achieve a technical effect in the context of a specific application or environment. The definition and provision of a programming language per se therefore does not contribute to the solution of a technical problem, even if the choice of the means of expression in the programming language serves to reduce the programmer's mental effort (see points 4- 4.2).

Decision of the Board of Appeal T 1741/08

Title A method for entering data into a data processing system.

Extract

Step of invention – main and auxiliary application (no)

Request for referral to the Enlarged Board of Appeal (no)

GUI designs: presentation of information. "Reducing the cognitive load of the user" is not in itself a technical effect.

Decision of the Board of Appeal T 423/11

Title Reconfigurable algorithmic networks for aircraft data management

Extract

Step of invention – (no)

Decision of the Board of Appeal T 862/10

Title Positioning and presentation of notification notices based on the focus of attention and activity of the user

Extract

Step of invention (main application) – no

Step of invention (auxiliary application 1) – yes

Clarity (claims 1 and 24 of auxiliary application 1) – yes

Clarity (claims 2 to 23 and 25 to 53 of auxiliary application 1) – no

The choice of where to place an object on a computer screen based on a value assigned to that object (its "urgency") cannot be considered to have an additional technical effect. Furthermore, the movement of the object on the screen in response to a change in said value is also considered to have no additional technical effect (see Reasons 3.3.1).

Board of Appeal Decision T 1370/11

Title Extensible on-demand property system

Extract

Reduction of the execution time of a computer-implemented method – generally not a technical effect

Inventive level – technical contribution (no)

Board of Appeal Decision T 2035/11

Title Navigation system with user-definable cost values

Extract

Inventive level – main application (no)

Referral to the department of first instance – (yes)

Board of Appeal Decision T 1802/13

Title Method and system for creating deep brain stimulation models

Extract

Oral proceedings – non-attendance of the appellant

Inventive level of "mixed invention"

Inventive level – (no): no technical effect derivable from the way in which the information is presented.

Decision of the Board of Appeal T 336/14

Title A user interface for an extracorporeal blood treatment machine

Extract

Admission of late-filed auxiliary applications – (yes)
Inventive step of "mixed invention" – (no)
In assessing the inventive step of a claim comprising technical and non-technical features ("mixed invention") and where the non-technical features relate to the cognitive content presented to the user of a graphical user interface (GUI), i.e. relate to "what" is presented rather than "how" something is presented, it must be analysed whether the GUI together with the presented content credibly helps the user to perform a technical task (related to "why" that content is presented) by means of a continuous and/or guided human-machine interaction process (see point 1.2).

Decision of the Board of Appeal T 697/17

Title SQL language extensions for modifying collection-valued and scalar-valued columns in a single statement

Extract

Patentable invention – computer-implemented invention
Patentable invention – technical character of the invention
Patentable invention – (yes)
Inventive step – mix of technical and non-technical features
Inventive step – statement of the problem and the solution
Submission to the department of first instance

Decision of the Board of Appeal T 1924/17

Title Data consistency management

Extract

Inventive step – mix of technical and non-technical features
Inventive step – identification of technical features
Interpretation of Article 52 (2) (a) and (3) EPC – mathematical methods as such Submission to the department of first instance – (yes)

ANNEX III

CONTRACT OF ACCESS TO RESOURCES GENETICS (RR.GG.)

1. INTRODUCTION

The countries of the Andean Community are part of the Group of Related Megadiverse Countries (LMMC), because they have a wide variety of biological species and genetic resources (hereinafter referred to as GRs). These countries set, among others, the objective of promoting the development of an international regime that effectively promotes and safeguards the fair and equitable distribution of the benefits derived from the use of biological diversity and its components. Said regime will contemplate the following elements: certification of the legal origin of the biological material, prior informed consent and agreed terms of access to genetic material, as requirements for the application and granting of patents, in strict accordance with the conditions of access granted. by the countries of origin of that material.

Therefore, the management of GRs. It constitutes one of the mechanisms that allows managing the sustainable use of biodiversity in order to guarantee the conservation of species and contribute to the economic development of the region through access to GRs. and its derived products.

Other objectives established by megadiverse countries that are related to access to GRs. are:

- Develop strategic projects and bilateral, regional and international agreements, within the framework of stronger south-south cooperation, for the conservation and sustainable use of biological diversity and GRs;
- Promote that current intellectual property systems take into account traditional knowledge associated with biological diversity in the evaluation of patent applications and other related rights;
- Jointly combat the improper or illegitimate appropriation of GRs, through the exchange of information on the negative behavior of academic or private institutions and the development of mechanisms that allow controlling the destination of GRs. of the countries of origin.

2. REGULATORY FRAMEWORK

2.1 International Framework on GRs

The international framework on GRs It is made up of several international agreements and instruments. The most relevant ones are mentioned below.

2.1.1 Convention on Biological Diversity (CBD)

The CBD entered into force on December 29, 1993. It has three main objectives: the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits derived from the use of genetic resources.

This Convention recognizes the sovereign rights of States over their national natural resources and, therefore, the power to regulate the conditions of access to genetic resources in areas located within the limits of their jurisdiction. Article 15 of the CBD summarizes a series of principles on economic access and benefit sharing (hereinafter "APB"). Among these principles, it is worth mentioning:

- Access to genetic resources is subject to approval (or "prior informed consent") of the country from which the resource is accessed.
- The conditions of access to genetic resources or their use, as well as the way in which the derived benefits will be shared, must be agreed: the ABS must be based on "mutually agreed conditions" that will be negotiated with the country that provides the resources (function that in some countries is delegated to an organization or community)

2.1.2 Nagoya Protocol

The Nagoya Protocol was approved on October 29, 2010 in Nagoya and entered into force on October 12, 2014. It provides an international framework for the implementation and promotion of the third objective of the CBD. Its main objective is the fair and equitable distribution of the benefits that arise from the use of GRs, thus contributing to the conservation and sustainable use of biodiversity. The CAN countries have signed the Nagoya Protocol on access to GRs. and the fair and equitable distribution of the benefits derived from its use of said Convention.

2 .2 Community framework on GRs

2.2.1 Decision 391

Andean Decision 391 of 1996 (hereinafter referred to as Decision 391) is the norm that regulates access to GRs. and defines the GR access contract. and its derivative products as the mechanism to establish mutually agreed conditions between each Member Country as the owner of the resource and the person requesting authorization to access and use that resource.

The objectives of Decision 391 are:

to. Provide conditions for fair and equitable participation in the benefits derived from access;

b. Lay the foundations for the recognition and valuation of GRs. and its derivative products and their associated intangible components, especially when they are indigenous, African American or local communities;

c. Promote the conservation of biological diversity and the sustainable use of biological resources containing GRs;

d. Promote the consolidation and development of scientific, technological and technical capabilities at the local, national and subregional level; and,

and. Strengthen the negotiating capacity of the Member Countries.

Decision 391 is applicable to GRs. of which the Member Countries are countries of origin, their derived products and their intangible components, as well as GRs. of migratory species that, due to natural causes, are found in the territory of the Member Countries.

In accordance with the third complementary provision of Decision 391, the national offices competent in matters of Intellectual Property will require the applicant to provide the access contract, as a prior requirement to the granting of the respective right, when the invention whose protection is requested has been obtained or developed from genetic resources or their derived products of which any of the Member Countries is the country of origin.

2.2.2 Decision 486

For its part, Andean Decision 486, in its Article 3 on biological and genetic heritage and traditional knowledge (hereinafter

referred to as TK), establishes that:

" The Member Countries will ensure that the protection conferred on the elements of industrial property will be granted by safeguarding and respecting their biological and genetic heritage, as well as the traditional knowledge of their indigenous, African American or local communities. Accordingly, the granting of patents that deal with inventions developed from material obtained from said heritage or said knowledge will be subject to that material having been acquired in accordance with the international, community and national legal system.

The Member Countries recognize the right and power of indigenous, African American or local communities to decide on their collective knowledge.

The provisions of this Decision will be applied and interpreted in a manner that does not contravene those established by Decision 391, with its current modifications."

In consistency with the third complementary provision of Decision 391, article 26 literal h) of Decision 486 establishes that the patent application must include a copy of the access contract, when the products or procedures whose patent is requested have been obtained or developed from GRs. or its derived products of which any of the Member Countries is the country of origin. Likewise, literal i) of article 26 establishes that the office will require a copy of the document that accredits the license or authorization of use of the traditional knowledge of the indigenous, Afro-American or local communities of the Member Countries, when the products or procedures whose protection is requested involving GRs. and have been obtained or developed from traditional knowledge of which the Member Countries are the country of origin.

Additionally, in the complementary provisions, Article 275 of Decision 486 establishes that:

" In accordance with the third complementary provision of Decision 391, the national authority competent in matters of access to GRs. and the competent national offices shall establish

information exchange systems on authorized access contracts and granted intellectual property rights no later than December 31, 2001."

2.2.3 National legislations

It is important to keep in mind that there are other national laws and regulations that each Member Country has established for the application and implementation of these Community Decisions, and that must be considered by the examiner.

3. DEFINITIONS RELATED TO GENETIC RESOURCES

3.1 Definition of genetic resource

According to Article 2 of the CBD, "genetic resources mean genetic material of actual or potential value." Genetic material is "any material of plant, animal, microbial or other origin that contains functional units of heredity."

According to the definitions contained in Article 1 of Decision 391, a genetic resource is any material of a biological nature that contains genetic information of real or potential value or utility.

Examples of GR sources	
Microorganisms, plant varieties, animal breeds, genetic sequences, information on nucleotide and amino acid sequences, biological traits, molecular events, plasmids and vectors.	

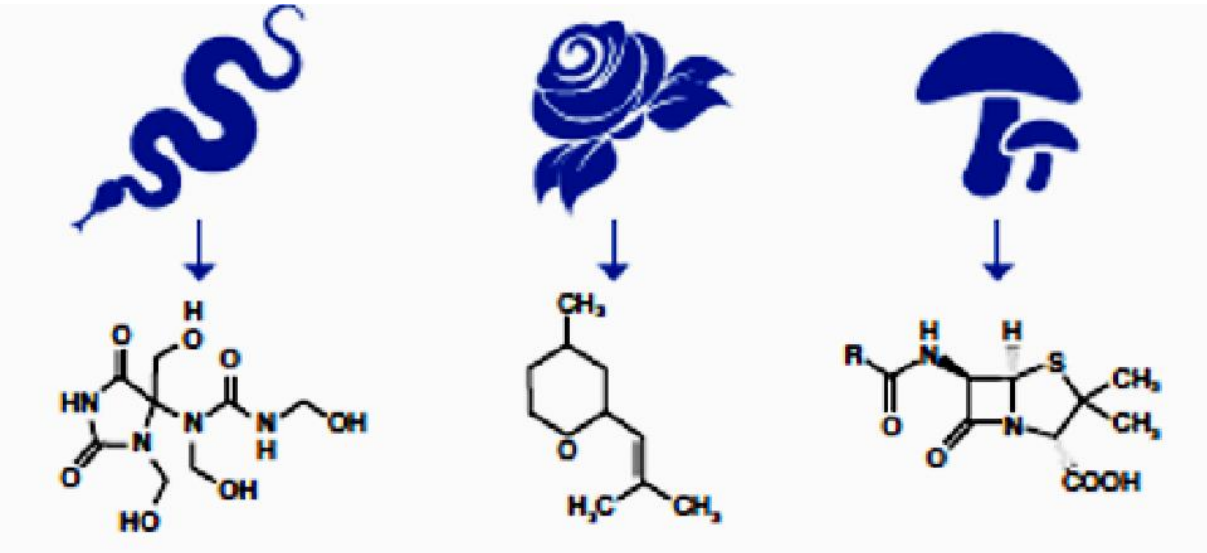
3.2 Definition of product derived from a GR.

According to the definitions contained in Article 1 of Decision 391, a derived product is defined as a molecule, combination or mixture of natural molecules, including crude extracts of living or dead organisms of biological origin, derived from the metabolism of living beings.

Examples of products derived from a GR

Figure 1: Examples of genetic resources and their derivatives

Genetic resources (contained in)	Derived	
Snake	(Active ingredient)	Poison
Rose	(Chemical product that gives rise to)	Aroma
Fungus	(antibiotic compound)	Penicillin



3.3 Definitions related to access to GRs.

Below are some definitions related to GRs. established in Article 1 of Decision 391:

Access: obtaining and using GRs. preserved in ex situ and in situ conditions, their derived products or, if applicable, their intangible components, for the purposes of research, biological prospecting, conservation, industrial application or commercial use, among others.

Biotechnology: any technological application that uses biological systems or living organisms, parts of them or their derivatives, for the creation or modification of products or processes for specific uses.

Intangible component: all knowledge, innovation or individual or collective practice, with real or potential value, associated with the genetic resource, or its derived products or the biological resource that contains them, whether or not protected by intellectual property regimes.

Biological diversity: variability of living organisms from any source, including, but not limited to, terrestrial and marine ecosystems and other aquatic ecosystems, as well as the ecological complexes of which they are part. It includes the diversity that exists within each species, between species and ecosystems, as a result of natural and cultural processes.

Genetic diversity: variation in genes and genotypes between and within species. Total sum of genetic information contained in biological organisms.

Country of origin of the genetic resource: country that owns the GRs. in in situ conditions, including those that, having been in said conditions, are in ex situ conditions.

Synthesized product: substance obtained through an artificial process from genetic information or other biological molecules. It includes semi-processed extracts and substances obtained through the transformation of a derived product through an artificial process (hemisynthesis).

Biological resources: individuals, organisms or parts thereof, populations or any biotic component of real or potential value or utility contained in the genetic resource or its derived products.

4. ACCESS CONTRACTS TO GRS.

According to Decision 391, the access contract is an agreement between the Competent National Authority on behalf of the State and a person, which establishes the terms and conditions for access to GRs, their derived products and, if applicable, the case, the associated intangible component. From this initial concept it follows that the GR access contract. signed between the authorized office and the interested party constitutes an authorization that allows access to GRs. or their derived products for the purposes of biological prospecting, industrial application and commercial use or basic research without commercial purposes, when the activities are not molecular systematics, ecology, evolution and molecular biogeography.

5. NATIONAL AUTHORITIES COMPETENT (ANC)

Omitted

6. CASES IN WHICH THE ACCESS CONTRACT MUST BE PROCESSED

The activities that configure access to GRs. and their derived products include those made with native species, whether in their wild, domesticated, cultivated or escaped domestication forms, including viruses, varroids and similar, found in the national territory or outside of it:

to. Those that seek the separation of the functional and non-functional units of DNA and/or RNA, in all the forms found in nature.
b. Those that seek the isolation of one or several molecules, understood as micro molecules and macromolecules, produced by the metabolism of an organism.

They do not configure access to GRs. and its derivative products, these activities when carried out on GRs. and products derived from species introduced in their wild, domesticated, cultivated or escaped domestication forms and those of human origin.

Now, when a patent application is sought for products or procedures obtained or developed from GRs. or its derived products, the applicant must present a copy of the access contract to the GRs. and its derived products in accordance with Decision 486.

7. REQUIREMENTS ACCORDING TO DECISION 486 DURING THE PROCESSING OF A PATENT APPLICATION

Article 26 of Decision 486 establishes the requirements that must accompany an application for a patent for an invention, where paragraphs h) and i) indicate:
"...
h) if applicable, a copy of the access contract, when the products or procedures whose patent is requested have been obtained or developed from GRs. or its derived products of which any of the Member Countries is the country of origin;

i) if applicable, the copy of the document that certifies the license or authorization of use of the traditional knowledge of the indigenous, African American or local communities of the Member Countries, when the products or procedures whose protection is requested have been obtained or developed based on said knowledge of which any of the Member Countries is the country of origin, in accordance with the provisions of Decision 391 and its modifications and current regulations;"

Example of a patent based on the use of genetic resources: salinosporamide:

Salinispora tropica is a marine actinomycete found in marine sediments off the coast of the Bahamas. In 1989, the Government of the Bahamas authorized the Scripps Institution of Oceanography at the University of California to collect sediments and use samples in a project searching for potential drug candidates. The researchers discovered the secondary metabolite salinosporamide A, produced by Salinispora tropica, which showed anticancer activity through proteasomal inhibition. The University of California filed patents on several medical applications of salinosporamides. Since then, other companies have filed patents on the synthesis of salinosporamide A and analogs. This case predates the CBD and the Nagoya Protocol, but is a good example of how the use of genetic resources can promote patent protection and of the types of issues that need to be considered in the context of mutually agreed terms.

7.1 Process to identify the need to present the access contract based on Article 26 of Decision 486

The examiner will verify whether the products or procedures for which the patent is requested have been obtained or developed from GRs. or its derived products. This verification must be carried out, at least, when its origin is any of the CAN countries, or, where appropriate, from other international treaties to which each Member Country is a party.

This requirement may be corrected when the applicant provides, at least, the registration number of the access contract and a simple copy of it.

Each CAN Member Country may establish means of identification, for example, placing a declaration related to the GR access contract, in the initial application or request for an invention patent application.

Member Countries are responsible for determining the process to identify the need for submission of the access contract. To carry out this process, it is suggested that the offices incorporate one or more of the following steps of the suggested process of the Verification Process Example and Suggestions in Section 6 of Annex IV.

Some cases related to the requirement to copy the access contract of the CAN Member Countries can be consulted in Section 6 of Annex IV for examples.

ANNEX IV
EXAMPLES

1. EXAMPLES OF CLARITY, CONCISION AND SUFFICIENCY

Example No. 1
Example of insufficiency in the description and lack of clarity of the claims
Document / Case PE 000956-2007/OIN
Title COMPOSITION THAT INCLUDES SUPEROXIDE DISMUTASE AND CACTUS TO REDUCE AND PREVENT HANGOVERS

SUMMARY: Composition to prevent, minimize and accelerate the recovery of typical symptoms associated with alcohol intake ("hangover") and that overcomes the disadvantages of existing compositions that have the same purpose. It mainly contains superoxide dismutase, Cactus nopal, sesamin and alpha-lipoic acid, among other components. In addition, it has powerful antioxidants, which increase the mental and physical development of those who consume it and contains nutritional values that strengthen the body's natural defenses. The composition comprises: a) 50 to 300 mg of superoxide dismutase; b) 250 to 800 mg of Cactus nopal; c) 250 to 500 mg of sesamin; d) 50 to 300 mg of alpha lipoic acid; and, e) other compounds, such as thiamine, niacin, folate, vitamin B12, pantothenic acid, gingo biloba extract, caffeine, among others. The specification does not include an example related to the composition that is intended to be protected.

OBJECTED CLAIM: "Composition to protect against, minimize effects of and rapid recovery from symptoms associated with alcohol-induced hangover characterized by having superoxide dismutase as primary elements of its composition."
OBJECTIONS RAISED: Insufficient description: It is noted that the description does not allow understanding of the technical problem or the solution posed by the invention. Likewise, the examiner indicated that it is not clear how the composition that is intended to be protected is developed, since the description does not include examples that allow understanding how to execute or put the invention into practice. Although the description indicates certain ranges for some of the components (superoxide dismutase, nopal

cactus, sesamin and alpha lipoic acid), it indicates the presence of others (thiamine, niacin, vitamin B6, folic acid, vitamin B12, etc.) without specifying the ranges in which they occur. For this reason, the composition to be protected is not described in such a way that a person versed in the matter can put it into practice.

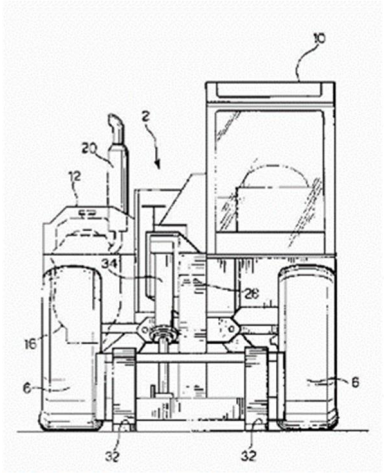
Lack of clarity of claims / Definition by the outcome to be achieved: The examiner indicates that the reference to "protect against, minimize effects of and rapid recovery from symptoms associated with alcohol-induced hangover" does not constitute an essential technical feature, structural or functional of the invention and, on the contrary, represents the solution of the technical problem to be solved, so the scope of the claims would not only include the composition of the invention but also all present or future alternatives that come to fruition. that result. Furthermore, the composition can be adequately defined by the components it contains. The expression "and the others that are part of the claim chapter" is imprecise since it does not specify the additional components present in the composition, which does not allow the scope of protection of the application to be determined precisely.

Example No. 2
Example of inclusion in the claims of the characteristics contained in the drawings
Documents / Case EP 0 375 705 / T 0398/00
Title – A forklift with a telescopic lifting arm

BACKGROUND/SUMMARY: In a forklift of the type comprising a structure on wheels carrying a lifting arm (22) articulated to the rear of the structure and a cabin (10) located on one side of the structure on one side of the axle longitudinal (AA) of the structure, the internal combustion engine (16) that propels the truck and drives the arm is arranged in a housing (12) that is located on the opposite side of the longitudinal axis to the cabin (10) and is separated of the cabin so as to form with it a space (14) at least as wide as the lifting arm (22). The arm (22) is articulated to the structure of the forklift in a position such that, in its completely lowered position, it is partially housed in the space so as not to interfere with the view of the operator working in the driving cabin.

Taking into account the fact that the cab would be designed for an operator of standard proportions, it is clear from the drawings, particularly when considered in the light of the essential technical problem involved in improving visibility for the operator, that the lifting arm's articulation axis was located below its horizontal viewing plane. Furthermore, it was evident that interference with visibility on the operator's side was reduced to a minimum by placing the engine with a large part of its height below the plane tangent to the top of the wheels, as could be clearly seen in particular in Figure 2 of the drawings.

Figure 2



OBSERVATIONS: The drawings may represent a vehicle in which approximately two-thirds of the engine height is below a plane tangent to the top of the wheels. An amendment defining that the majority of the engine is below the given level would not add to the matter if the person skilled in the art recognized that such a spatial arrangement of the engine with respect to the wheels is in fact a deliberate measure aimed at solving the technical problem.

Example No. 3

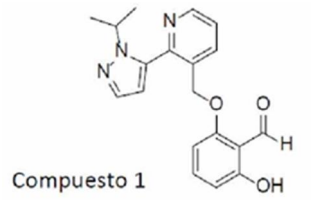
Example of a claim written based on parameters (case of crystalline compounds)

Document / Case PE 000022-2016/DIN

Title – "CRYSTALLINE POLYMORPHS OF THE FREE BASE OF 2-HIDROXY-6-((2-(1-ISOPROPYL-1H-PYRAZOLE-5-IL) PIRIDIN-3-IL)METHOXY)BENZALDEHYDE"

CLAIM 1

A crystalline Form II of Compound 1

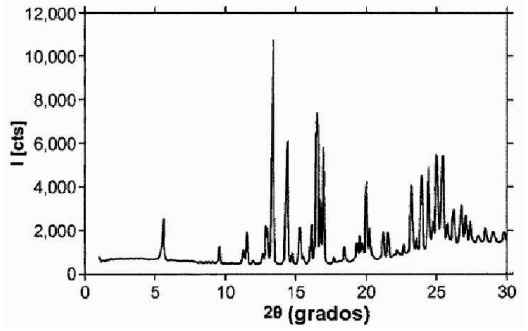


Compuesto 1

Characterized by a powder X-ray diffraction (Cu Kα radiation) pattern that has powder 23.18°, 23.92°, 24.40°, 24.99°, 25.39° and 26.72°2θ (each ± 0.2°2θ)

ANALYSIS: This type of wording, based on certain parameters of the invention, is accepted for cases of polymorphic crystals, since if the compound is only defined by its crystalline nature, it is not possible to determine its scope. In these cases, in addition to the name or chemical structure of the compound, it must be characterized by its diffraction angles of the XRPD spectrum whose relative intensities are equal to or greater than 30%, since it is a relevant characteristic. Figure 5 of the description reveals the diffractogram of the claimed crystalline form, which plots the peaks of the diffraction angles and their respective intensities.

Figura 5



°2θ	Intensidad (%)	°2θ	Intensidad (%)
62 ± 0.20	24	23.92 ± 0.20 ⇨	41
.85 ± 0.20	22	24.40 ± 0.20 ⇨	44
.97 ± 0.20	21	24.73 ± 0.20	22
.37 ± 0.20 ⇨	100	24.99 ± 0.20 ⇨	50
.37 ± 0.20 ⇨	56	25.12 ± 0.20	28
.31 ± 0.20	21	25.39 ± 0.20 ⇨	51
.09 ± 0.20	23	25.70 ± 0.20	21
.45 ± 0.20 ⇨	69	26.19 ± 0.20	27
.75 ± 0.20 ⇨	32	26.72 ± 0.20 ⇨	30
.96 ± 0.20 ⇨	53	27.02 ± 0.20	25
.95 ± 0.20 ⇨	39	27.34 ± 0.20	23
.22 ± 0.20	20	28.44 ± 0.20	20
.18 ± 0.20 ⇨	38		

Además, la descripción también revela una tabla que describe las intensidades relativas de 25 ángulos de difracción.

The values linked with arrows allow you to verify that the claim describes all the peaks (diffraction angles) with relative intensities equal to or greater than 30%.

CONCLUSION: The claim meets the requirement of clarity based on article 30 of Decision 486.

Example No. 4
Example of lack of clarity, claim defined based on parameters
Document / Case EP 0011915
Title - IMPROVEMENTS RELATED TO CURLY POLYESTER YARNS

CASE SUMMARY
The invention relates to a stretched and crimped polyester yarn, where the crimp of the yarn is defined based on certain parameters, such as the percentage of initial crimp and the mechanical crimp stability.

CLAIM
Gear drawn and crimped polyester yarn with latent bulk, characterized by an initial crimp (EK) of at least 1.5% and a mechanical crimp stability (KB) greater than 0%, where the initial crimp (EK) and the mechanical crimp stability (KB) are measured as follows: the gear drawn and crimped polyester yarn with latent bulk is obtained at a tension of 1.0 centi-newtons/tex to form a skein of 1 m in circumference and a total

of 2 50 decitex; the skein is stretched and pre-loaded with a load of 0.01 centi-newtons/tex, heated at 120 °C for 10 minutes to develop volume and then cooled; the skein is subjected to a force of 1 centi-newton/tex for 10 seconds and its length L0 is measured; after 10 minutes the length L1 of the hank is measured again supporting the load of 0.1 centi-newtons/tex; after an interval of 10 minutes a force of 0.1 centinewtons/tex is applied for 10 seconds and immediately thereafter a force of 10 centi-newtons/tex is applied for 10 seconds; After 20 minutes the length L3 of the skein is measured under a load of 0.01 centi-newtons/tex.
In this case, the clarity of the claim cannot be challenged in view of the fact that the indicated parameters can be determined by chemical analysis and measurements of the physical properties of

$$EK = \frac{L_0 - L_1}{L_0} \times 100\% \qquad KB = \frac{L_0 - L_1}{L_0 - L_1} \times 100\%$$

the polyester yarn. The characterization of the physical structure of the crimped polyester yarn through its parameters (initial crimp and mechanical crimp stability) are accepted, since they are common in the technical field of the invention and because the structure of the crimped polyester yarn is such a nature that it cannot be adequately defined otherwise in a reasonable manner. It is considered that the person versed in the matter would naturally use these parameters instead of others that are much more complicated to determine, such as the frequency of the curl shape and stability, where statistical analysis may possibly have to be used. In this case, the parameters of the claim can be obtained reliably by following the instructions contained in the description.

CONCLUSION: The claim is clear.

Example No. 5
Example of inclusion in product claims defined by its manufacturing process
Document / Case T 828/08

Title – Coating processes and apparatus for the same

BACKGROUND/SUMMARY

The examining division had concluded that, with respect to the main application, the method according to claim 1 with respect to D2 (DE-A-32 00 034) does not comply with an inventive step, the invention according to claim 16 with respect to D2 or D6 (DE-A-1 621 848) and the coated metal sheet according to claim 19 with respect to the generally known coated metal sheets do not comply with novelty.

CLAIMS

1. A method for applying on one side an at least partial coating (4) on a metal sheet (2), wherein the metal sheet (2) has an essentially planar configuration in relation to its longitudinal dimensions in relation to its thickness. , characterized in that the metal sheet (2) [deleted: defined] deforms convexly and then the coating (4) is applied in the deformed state of the metal sheet (2) at a process temperature (process T), so that at a use or ambient temperature (TRE), which deviates from the process temperature (process T), the flat shape [deleted: desired] is assumed by the metal sheet (2) including the coating (4), the metal sheet (2) having a thickness of 0.05 to 0.5 mm and the coating (4) having a thickness of 10 nm to 100 µm.

14. Coated metal sheet (2), manufactured by a method according to one of claims 1 to [deleted: 15] 13, with a coating (4) of a material whose thermal expansion coefficient differs from that of the metal sheet (2)., the coating (4) is arranged free of shear stress on the metal sheet (2).

OBSERVATIONS: The characteristic feature of claim 1, compared to this state of the art, solves the problem of counteracting or even preventing the warping of the metal sheet from the flat shape including the coating after this structure has again reached the ambient temperature or has reached operating temperature. In order to solve this problem, the person skilled in the art can be expected to apply certain specialized knowledge in his field of specialization, possibly to neighboring fields or overriding general fields. Since D2 refers to a special field of coating, it is not necessary to address the question of whether it belongs to the state of the art of a higher general technical

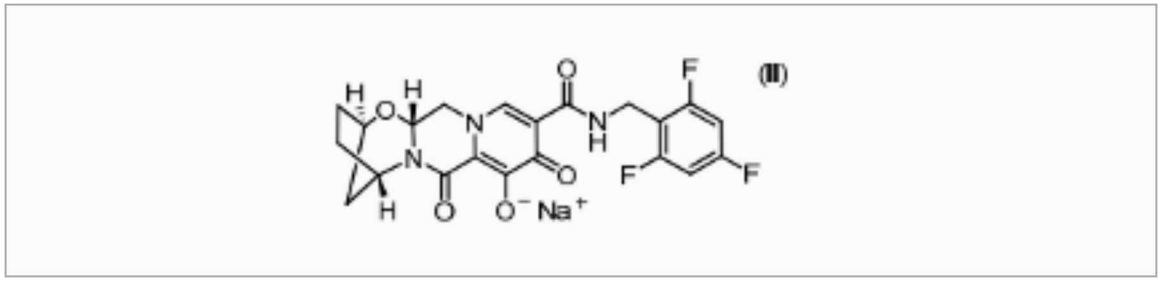
field that is part of the general technical knowledge of experts in the field of coating of metal sheets. Therefore, based on the recognized state of the art, D2 does not question the inventive step of the method according to claim 1.

However, the state of the art established by the search does not refer to metal sheets that are provided with a coating of a material whose technical expansion coefficient differs from that of the metal sheet and that this coating is arranged on the metal sheet without shear stress. The subject matter of claim 14 is therefore initially new compared to this prior art. Since this prior art also does not contain any indication of such a stress-free arrangement of a coating on a metal sheet, this subject matter also has an inventive step compared to this prior art.

Example No. 6
Example of polymorphs (clarity, sufficiency and support)
Document / Case BO SP126-2015
Title - (2R,5S,13aR)-7,9-dioxo-10-((2,4,6-trifluorobenzyl)carbamoyl)-2,3,4,5,7,9,13,13a- octahydro-2 Sodium ,5-methanopyrido[1',2',4,5]pyrazino[2,1-b][1,3]oxazepin-8-olate

BACKGROUND/SUMMARY
The present invention relates to Sodium (2R,5S,13aR)-7,9-dioxo-10-((2,4,6-trifluorobenzyl)carbamoyl)-2,3,4,5,7,9,13,13a-octahydro-2,5-methanopyride[1',2':4,5]pyrazino[2,1-b][1,3]oxazepin-8-olate (Formula II) and its related crystalline forms. It also refers to the pharmaceutical formulations and synthesis methods of said compounds and crystalline forms, which are useful in the treatment of HIV.

TEXT TO ANALYZE / CLAIM
1. A compound of Formula II:



Wherein said compound is crystalline and is characterized by an 28.5° 2-θ ± 0.2°.

OBSERVATIONS: There were no objections regarding the clarity, conciseness and support of the crystalline form.

Example No. 7
Example of pharmaceutical compositions (clarity, result to be achieved)
Document/Case EC IEPI-2014-19920 / ECSP14019920
Title - Topical compositions comprising fipronil and permethrin and their methods of use

BACKGROUND/SUMMARY
Highly effective, stable topical formulations comprising permethrin, fipronil and a solvent system sufficient to solubilize these two active ingredients and limit the degradation of fipronil to its sulfone and its uses in topical applications on animals and their environments. Useful formulations comprise between about 30% and about 55% (w/w) permethrin and between about 2 and 15% (w/w) fipronil and a solvent system comprising N-methylpyrrolidone and a glycol, a glycol ether , a fatty acid ester or a neutral oil, wherein the N-methylpyrrolidone and the glycol, the glycol ether, the fatty acid ester or the neutral oil are present at a weight:weight ratio of between about 1:2.0 and about 1:3.5, glycol, glycol ether, glycol ester, fatty acid ester or neutral oil to N-methylpyrrolidone. When these two active ingredients are combined in the amounts described, they present an unexpectedly improved repellent activity against the stable fly. However, it is the formulations described herein that provide the solvency and stability that allow synergistic concentrations to be maintained after application to an animal.

TEXT TO ANALYZE / CLAIM
Claim 21 is characterized by:
“It further comprises fipronil sulfone below approximately 3.5% by area relative to the peak area for fipronil measured by HPLC, approximately three months after formulation.”

Claim 22 is characterized by:
" It also comprises fipronil sulfone, where said amount of

fipronil sulfone approximately three months after formulation has not increased by more than 50% of the original amount of said fipronil sulfone present at the time of formulation"

Claim 23 is characterized "in that it comprises between approximately 2% (w/w) and approximately 15% (w/w) of fipronil; between about 30% (w/w) and about 55% (w/w) permethrin; a neutral oil and N-methylpyrrolidone; and fipronil sulfone, wherein said neutral oil is present in an amount in which said amount of fipronil sulfone approximately three months after formulation has not increased by more than 50% with respect to the original amount of said fipronil sulfone present in the moment of formulation."

The claims indicated above are defined by the result to be achieved, which is not admitted according to the Andean Patent Manual when it states on page 41, the following:
" The claims must define the invention by its essential, structural or functional characteristics. It is not accepted that the claim defines the invention by the result to be achieved (such as: "Distillation apparatus characterized by having a performance of 99%), since in reality it would be equivalent to defining the technical problem to be solved and the scope of the claim. would include not only the solution proposed by the applicant, but all present or future alternatives that reach that result.
The result to be achieved is not a technical characteristic of the invention. It may appear in the claim, but always accompanied by the technical characteristics that define the invention and as long as they do not generate a lack of clarity."

Likewise, in claim 23 the term "approximately" does not allow the scope of the claim to be clearly defined and must be challenged for lack of clarity.

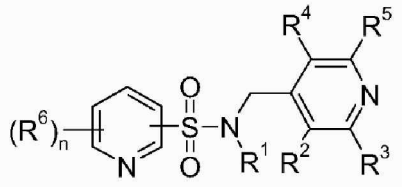
Therefore, claims 21, 22 and 23 do not comply with Article 30 of Andean Decision 486.

2. EXAMPLES OF PATENTABLE AND NON-PATENTABLE MATTER

2.1 Examples of uses

Example No. 1
Example of chemical area / objection raised: use
Document/Case PE 000160-2007/OIN
Title Pyridin-4-ylmetalamides

OBJECTED CLAIMS: "The use of pyridin 4-ylmethyl-amides of formula (I) and its N-oxides or its salts acceptable in agriculture, according to claim 1, to combat phytopathogenic fungi" (Claim 13). "A method for combating phytopathogenic fungi that comprises the treatment of fungi or materials, plants, soil or seeds to be protected from fungal attack, with at least one pyridin 4-ylmethyl-amide compound of the formula(I) and/or an N-oxide or one of its agriculturally acceptable salts according to claim 1." (Claim 16)



OBJECTION RAISED:
Uses: The content of claim 13 corresponds to the use of the product of formula (I). Claim 16, when describing a method for combating phytopathogenic fungi or arthropod pests with pyridin-4-ylmethyl-amide derivatives of formula (I), also refers to the use of a product (in this case the use of the derivative of pyridin-4-ylmethyl-amide of formula (I)).
LEGAL BASIS: Interpretation of Article 14 of Decision 486 by the Court of Justice of the Andean Community in Process N°89-AI-2000

Example No. 2
Example of therapeutic methods (not patentable)
Document / Case EC IEPI-2015-11764 / ECSP15011764
non-metastatic castration-resistant prostate cancer

BACKGROUND/SUMMARY

Antiandrogens for use in the treatment of non-metastatic castration-resistant prostate cancer are described in the present invention.

TEXT TO ANALYZE / CLAIM

1. A method of treating non-metastatic castration-resistant prostate cancer in a male; The method comprises administering a therapeutically effective amount of an antiandrogen to a male with non-metastatic castration-resistant prostate cancer.

Office arguments:

" The claims characterize a method of treatment. Therapeutic methods are NOT considered patentable in accordance with Article 20, literal d) of Decision 486 of the Andean Community."

Applicant's Arguments:

" The foundations of the opposition are not based on the objective reality of the object of the invention, since the object of the invention does not constitute any method of treatment, as is maintained, but rather the compound whose formula and its alterations, which are inserted in the claims and that meets the patentability requirements provided for in the applicable community standard.

Nor, in any way, does the object of the invention for which the patent is requested constitute a diagnostic method, as is erroneously stated. (…)

There is no reasoning in the opposition text, not even philosophical, let alone technical, that attempts to demonstrate the unethical nature of the compound. Meaningless ramblings cannot be a basis for the deprivation of rights.
Likewise, there is no legal basis for the assertion that new products resulting from research lack the potential to be the object of inventions and, consequently, to be registered as patents and to obtain the protection derived from such registration. Specifically, Dr. Philip W. Grubb, a renowned jurist in the area of patents, highlights that "new pharmaceutical compositions can be of three different types; combination preparations comprising two or more pharmaceutically

active ingredients..., new drug delivery systems or dosage forms and compositions comprising a product not previously used as a drug together with any conventional pharmaceutical carrier or excipient. All of them are patentable, if they are not in the state of the art. ALAFAR tries to confuse the compounds with their form of administration by citing a work on "Pharmacy" by Gennaro R. Alfonso, published in 1988, which is certainly not part of a legal treatise on patents, to which it adds definitions found on the internet. about compositions but that in no way refer to their patentability."

Claims 1 to 29 refer to therapeutic methods, since they are characterized by the method of treating prostate cancer, as well as indicating the doses and routes of administration of a medication in men, these claims are not patentable according to Article 20 literal d) of Andean Decision 486.

Example No. 3
Example of herbicides (use not susceptible to patentability)
Document / Case EC IEPI-2015-16620 / ECSP15016620

Title - Synergistic control of weeds from the applications of aminocyclopyrachlor and fluroxypyr

BACKGROUND/SUMMARY
Described herein are herbicidal compositions comprising a synergistically herbicidal effective amount of (a) aminocyclopyrachlor, or an agriculturally acceptable salt or ester thereof, and (b) fluroxypyr, or an agriculturally acceptable salt or ester thereof. Also described herein are methods of controlling undesirable vegetation, which include application to vegetation, or to an area adjacent to vegetation, or application to soil, or water, to prevent the outbreak or growth of the vegetation (a) aminocyclopyrachlor, or an agriculturally acceptable salt or ester thereof and (b) fluroxypyr, or an agriculturally acceptable salt or ester thereof, wherein (a) and (b) are each added in an amount sufficient to to produce a synergistic herbicidal effect.

TEXT TO ANALYZE / CLAIM

13. A method of controlling undesirable vegetation, comprising application to vegetation, or to an area adjacent to vegetation, or application to soil, or water, to prevent the sprouting or growth of vegetation (a) aminocyclopyrachlor, or an agriculturally acceptable salt or ester thereof and (b) fluroxypyr, or an agriculturally acceptable salt or ester thereof, wherein (a) and (b) are each added in an amount sufficient to produce a herbicidal effect synergistic.

Claims 13 to 33 refer to a method of application of the claimed herbicide composition, which would be the instructions for its use. The uses are not susceptible to patentability, according to Article 14 of Andean Decision 486, and are protected. the products or procedures, where the product is correctly defined by its conformation or its composition and the procedures by the series of stages that seek an end. The use does not correspond to a product or a procedure, but is simply the industrial application of those products or procedures.

Therefore, claims 13 to 33 do not comply with Article 14 of Andean Decision 486.

2.2 Examples of CII

Example No. 1
Example of application of the problem-solution method to an CII (economic-commercial method)
Title - Method to facilitate purchasing on a mobile device

Background/Summary
TEXT TO ANALYZE / CLAIM
Claim 1:
Method to facilitate purchasing on a mobile device where:
(a) the user selects two or more products to purchase;
(b) the mobile device transmits the data of the selected products and the location of the device to a server;
(c) the server accesses a supplier database to identify suppliers that offer at least one of the selected products;

(d) the server determines, based on the location of the device and the identified vendors, an optimal purchasing path for purchasing the selected products by accessing a cache in which optimal purchasing paths determined for previous requests are stored; and
(e) the server transmits the optimal shopping path to the mobile device for viewing.

EXAM ANALYSIS

Step (i): The characteristics that contribute to the technical character are identified at first glance as a distributed system that comprises a mobile device connected to a server computer that has a cache memory and is connected to a database.

Step (ii): Document D1, which discloses a method to facilitate purchasing on a mobile device in which the user selects a single product and the server determines from a database the seller selling the selected product closest to the user and transmits this information to the mobile device, it is selected as the closest state of the art.

Step (iii): The differences between the object of claim 1 and D1 are:

(1) The user can select two or more products to purchase (instead of a single product).
(2) The user is provided with an "optimal shopping path" to purchase the two or more products.
(3) The server determines the optimal purchasing path by accessing a cache in which the optimal purchasing paths determined for previous requests are stored.

Differences (1) and (2) represent modifications of the underlying economic-commercial concept, since they define the production of an ordered list of stores to visit that sell these products. No technical purpose is served and no technical effects can be identified from these differences. Therefore, these features make no technical contribution on D1. On the other hand, difference (3) makes a technical contribution in terms of the technical implementation of differences (1) and (2) and has the technical effect of allowing a rapid determination of the optimal purchasing path by accessing the Previous requests that are stored in a cache.

Step (iii)(c): The objective technical problem should be formulated from the perspective of the subject matter expert as an expert in a technical field. Such person is not considered to have experience in matters related to that business activity. In this case, the trained person can be defined as an information technology expert who acquires knowledge of characteristics (1) and (2) related to the business as part of the formulation of the technical problem to be solved, as would be the case in a realistic situation in the form of a requirements specification. Then, the objective technical problem is formulated on how to modify the method of D1 to technically efficiently implement the non-technical business concept defined by differences (1) and (2), which is given as a constraint to be satisfied.

Inventive step: Following requirement (1), it would have been a matter of course for the expert to adapt the mobile device used in D1 to allow the user to select two or more products instead of just one.
It would also have been obvious to assign the task of determining the optimal shopping path (arising from requirement (2)) to the server, by analogy with the server similarly determining the nearest supplier in D1. Since the target technical problem also requires a technically efficient implementation, the expert would have searched for efficient technical implementations of path determination.

A second document D2 discloses a trip planning system for determining travel trips, listing a set of places to visit, and addresses this technical problem: the D2 system accesses a cache that stores the results of previous queries for this purpose. . Therefore, the expert would have considered the teaching of D2 and adapted the server in D1 to access and use a cache as suggested in D2 to provide a technically efficient implementation of determining the optimal purchase path, that is, the difference (3). Therefore, the invention of claim 1 is considered to lack an inventive step.

OBSERVATIONS: The example shows a typical application of the approach developed in the jurisprudential decision of the COMVIK case. The analysis of technical effects is performed in detail in step (iii) to see if the differences from the closest prior art

comprise features that make a technical contribution. This analysis refines the initial finding from step (i) by identifying the feature of accessing the cache for the results of previous requests in the step of determining the traversal as a technical feature. It should be noted that step (i) would not need to be explicitly stated in the reasoning. In step (iii)(c), the non-technical modifications of the business concept are given to the expert as a constraint that must be met. Whether the new business concept is innovative or not is irrelevant here for the assessment of the inventive level, which must be based on the characteristics of its technical implementation.

Example No. 2
Example of application of the problem-solution method to an CII (commercial economic method)
Title – Computer - implemented method for the intermediation of offers and demands in the field of freight transportation

Background/Summary
TEXT TO ANALYZE / CLAIM
Claim 1:
A computer-implemented method for the intermediation of offers and demands in the field of freight transportation, which includes the following steps:

(a) receive transportation offers/demands from users, including location and time data;
(b) receive users' current location information from the GPS terminals with which the users are equipped;
(c) after receiving a new offer/demand request, check whether there are previous offers/demands not yet satisfied that can respond to the new request;
(d) if so, selecting the one for which the current locations of both users are closest; and
(e) otherwise, store the new request.

EXAM ANALYSIS
Step (i): underlying the claimed method is the following economic-commercial method:
Method of intermediation of offers and demands in the field of freight transportation, which includes:

- receive transport offers/demands from users, including location and time data;
- receive information about the current location of users;
- after receiving a new offer/demand request, check if there are previous offers/demands not yet satisfied that can respond to the new request;
- if so, selecting the one for which the current locations of both users are closest; and
- otherwise, store the new request.

Said commercial method is not technical in itself and is excluded under Article 15 paragraph d) of Decision 486. The intermediation of offers and offers is a typical business activity. Using the geographic location of users is the type of criteria that a shipping agent might specify as part of a business method based solely on non-technical business considerations. This commercial method has no technical purpose in the context of the invention and therefore does not contribute to its technical character.

Therefore, only the characteristics related to the technical implementation of this business method can be identified as the characteristics that contribute to the technical character of the invention:
- The steps of the trading method are carried out using a computer.
- Current location information is received from GPS terminals.

Step (ii): Document D1 describes an order management method in which a server computer receives location information from GPS terminals, selected as the closest prior art.

Step (iii): The difference between the object of claim 1 and D1 is therefore the computer implementation of the steps of the business method defined above. The technical effect of this difference is simply the automation of the business method underlying claim 1. The conclusion reached in step (i) is valid, since the only distinguishing feature that makes a technical contribution is the technical implementation of this business method.

Step (iii) (c): The objective technical problem is formulated on how to adapt the method of D1 to implement the bid-ask brokerage trading method according to the current location of the user. The person skilled in the art is considered to be a software project

team and is provided with knowledge of the business method in the form of a requirements specification.

Inventive Level: Adapting the D1 method to execute the steps of the business method is simple and requires only routine programming. Therefore, the invention of claim 1 is considered to lack an inventive step.

OBSERVATIONS: In this example, it was clear from the initial analysis in step (i) that underlying the claimed method was a method of negotiating bids and offers, which as such is a commercial method. The defining characteristics of the business method were easily separable from the technical characteristics of its computer implementation. Therefore, this example illustrates a line of argument in which it was possible in step (i) to determine all the characteristics that contribute to the technical character of the invention and all those that do not. This line of argument belongs more to the field of computer-implemented business methods and may be less appropriate in other fields.

Example No. 3
Example of application of the problem-solution method to an CII (technical nature)

Title - System for transmitting a broadcast media channel to a remote client over a data connection

Background/Summary
TEXT TO ANALYZE / CLAIM
Claim 1:
A system for transmitting a broadcast media channel to a remote client over a data connection, said system including:
(a) means for storing an identifier of the remote client and an indication of an available data rate of the data connection to the remote client, said available data rate being less than the maximum data rate for the data connection to the remote client ;
(b) means for determining a rate at which data will be transmitted based on the indication of the available data rate of the data connection; and

(c) means for transmitting data at the determined rate to said remote client.

EXAM ANALYSIS

Step (i): At first glance, all the features appear to contribute to the technical character of the invention.

Step (ii): Document D1 describes a system for transmitting video over an xDSL connection to subscribers' decoders, it is selected as the closest state of the art. The system comprises a database that stores identifiers of subscribers' computers and, in association therewith, an indication of the maximum data rate for the data connection to each subscriber's computer. Furthermore, the system comprises means for transmitting the video to a subscriber's computer at the maximum data rate stored for said computer.

Step (iii): The differences between the object of claim 1 and D1 are: (1) Store an indication of an available data rate of the data connection to the remote client, said available data rate being less than the data rate maximum data for the data connection to the remote client.
(2) Use said available data rate to determine the rate at which data is transmitted to the remote client (rather than transmitting data at the maximum data rate stored for said remote client as in D1).

The purpose of using an "available data rate" that is less than the maximum data rate for the data connection to the remote client is not clear from the claim. Therefore, the relevant information in the description is taken into account.

In the description, it is explained that a pricing model is provided that allows the customer to choose between several service levels, each service level corresponding to an available data rate option that has a different price. A user can select an available data speed lower than the maximum data speed possible with the connection to pay less. Therefore, using an available data rate that is less than the maximum data rate for connection to the remote client addresses the objective of allowing a client to choose a data rate service level in accordance with that data

rate model. prices. This is not a technical objective, but rather an objective of a financial, administrative or commercial nature and, therefore, falls within the exclusion of plans, rules and methods for the exercise of economic-commercial activities of Article 15 of Decision 486. Therefore, it can be included in the formulation of the objective technical problem as a constraint that must be satisfied. The features of storing the available data rate and using it to determine the rate at which data is transmitted have the technical effect of implementing this non-technical objective.

Step (iii) (c): Therefore, the objective technical problem is formulated as how to implement in D1's system a pricing model that allows the customer to choose a data rate service level.

Inventive level: Taking into account the task of implementing this choice of data rate service level according to the pricing model, it is considered that it would be obvious to the expert that the data rate purchased by a subscriber (i.e., the " available data rate" of claim 1), which can only be less than or equal to the maximum data rate of the data connection to the subscriber's computer (i.e., the "remote client" of claim 1), would have to be stored for each subscriber and used by the system to determine the rate at which data will be transmitted to a subscriber. Therefore, the invention of claim 1 is considered to lack an inventive step.

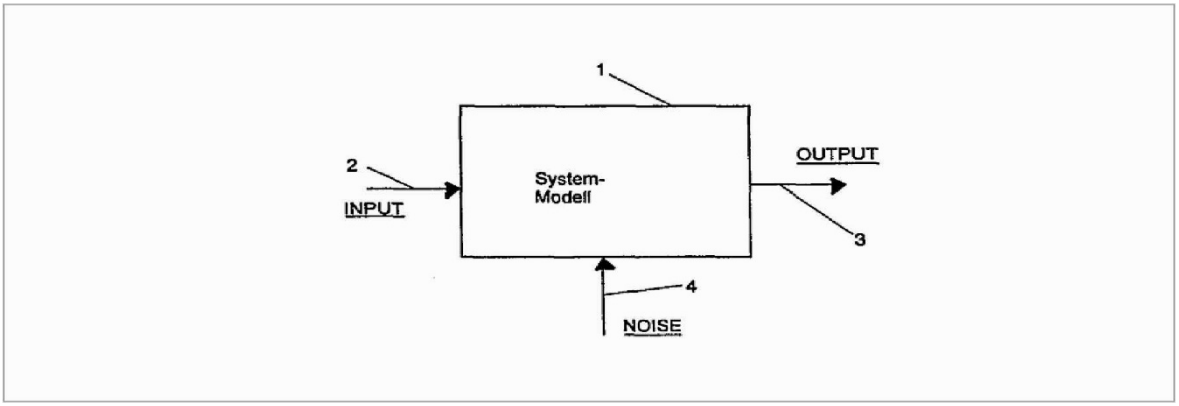
REMARKS: This example illustrates a claim involving a complex combination of technical and non-technical features. At first glance in step (i), all the features seemed to contribute to the technical character of the invention. After the comparison with D1, in step (iii) a detailed analysis of the technical nature of the contribution of the invention on D1 was possible. This detailed analysis revealed that the differentiating features had a non-technical purpose. This non-technical goal could thus be incorporated into the formulation of the objective technical problem.

Example No. 4
Example of application of the problem-solution method to an CII (mathematical algorithm)
Document / Case - EP 1 257 904 / T 1227/05

Title - Computer Implemented Method for Numerical Simulation of the Performance of an Electronic Circuit Subject to 1/F Noise

BACKGROUND

The claim refers to a computer-based method for the numerical simulation of the performance of an electronic circuit subject to 1/f noise, which is one of the main sources of noise in electronic circuits. Features (a) – (c) specify the mathematical model used in the numerical simulation. It is a vector of noise and 1/f distributed random numbers, that is, random numbers that have a particular statistical property typical of real (physical) 1/f noise. Steps (d1) - (d3) define the mathematical algorithm used to generate these random numbers. According to the description, this mathematical algorithm is particularly efficient in terms of calculation time and storage resources required to generate the random numbers necessary for the simulation.



TEXT TO ANALYZE / CLAIM

Claim 1:

A computer-implemented method for the numerical simulation of the performance of an electronic circuit subject to 1/f noise, where:

(a) the circuit is described by a model with input channels, noise input channels, and output channels;

(b) the operation of the input channels and the output channels is described by a system of stochastic differential equations;

(c) an output vector is calculated for an input vector present in the input channels and for a noise vector and 1/f distributed random numbers present in the noise input channels; and
(d) the noise vector y is generated by the following steps:
(d1) set the number n of random numbers to be generated;
(d2) generate a vector x of length n of Gaussian distributed random numbers;
(d3) generate the vector y by multiplying the vector x with a matrix L defined according to equation E1.*
(**Equation E1 is assumed to be explicitly specified in the claim.*)

EXAM ANALYSIS

Step (i): The use of a computer to carry out the claimed method is a clearly technical characteristic. The question is whether the other features, in particular the mathematical algorithm of steps (d1) - (d3), also contribute to the technical character of the claimed object. Considered in isolation, steps (d1) - (d3) represent a non-technical mathematical method. However, the claim is not directed to this mathematical method as such (which would be excluded from patentability according to Article 15 of Decision 486), but is limited to a computer-implemented method in which this mathematical method serves for the Numerical simulation of the performance of an electronic circuit subject to 1/f noise, which is considered a technical purpose. Features (a) - (c) ensure that the claim is functionally limited to this technical problem by specifying the mathematical model used in the simulation and how the generated noise vector is used in said model, in order to establish the link between the problem declaration of the method and steps (d1) - (d3). Furthermore, the mathematical model specified by features (a) - (c) defines how the numerical simulation is performed and therefore also contributes to the technical purpose mentioned above. As a result, all steps relevant to the circuit simulation, including the mathematically expressed claim features (d1) - (d3), contribute to the technical character of the method to the extent that they are relevant to the circuit simulation.

Step (ii): Document D1, which discloses a method for the numerical simulation of the performance of an electronic circuit subject to 1/f noise with steps (a) - (c) but with a different

mathematical algorithm to generate the distributed random numbers of 1/f, so it is selected as the closest state of the art.

Step (iii): The difference between the methods of claim 1 and D1 is the mathematical algorithm used to generate the vector of 1/f distributed random numbers, i.e. steps (d1) - (d3). The algorithm defined by steps (d1) - (d3) requires less computing resources than the one used in D1. In the context of the claimed method, this directly results in a reduction of the computing resources required for the numerical simulation of the performance of an electronic circuit subject to 1/f noise, which is the technical effect achieved on D1.

Step (iii) (c): The objective technical problem solved with respect to D1 is formulated as how to generate the 1/f distributed random numbers used in the numerical simulation of the performance of an electronic circuit subject to 1/f noise in a form which requires less computing resources.

Inventive step: No state of the art suggests the algorithm defined by steps (d1) - (d3) as a solution to the objective technical problem. Therefore, it is considered that the claimed invention involves an inventive step.

OBSERVATIONS: This example illustrates the situation in which features that, considered in isolation, are not technical, but which, in the context of the claimed invention, contribute to producing a technical effect that serves a technical purpose. Such characteristics are considered to contribute to the technical character of the invention and can therefore support the presence of an inventive step. It should be noted that, if the claim were not limited to the numerical simulation of an electronic circuit subject to 1/f noise, the mathematical algorithm defined by steps (d1) - (d3) would have no technical purpose and therefore would not be considered to contribute to the technical nature of the claim (which requires fewer computing resources than another mathematical algorithm, since it alone is not sufficient in this regard).

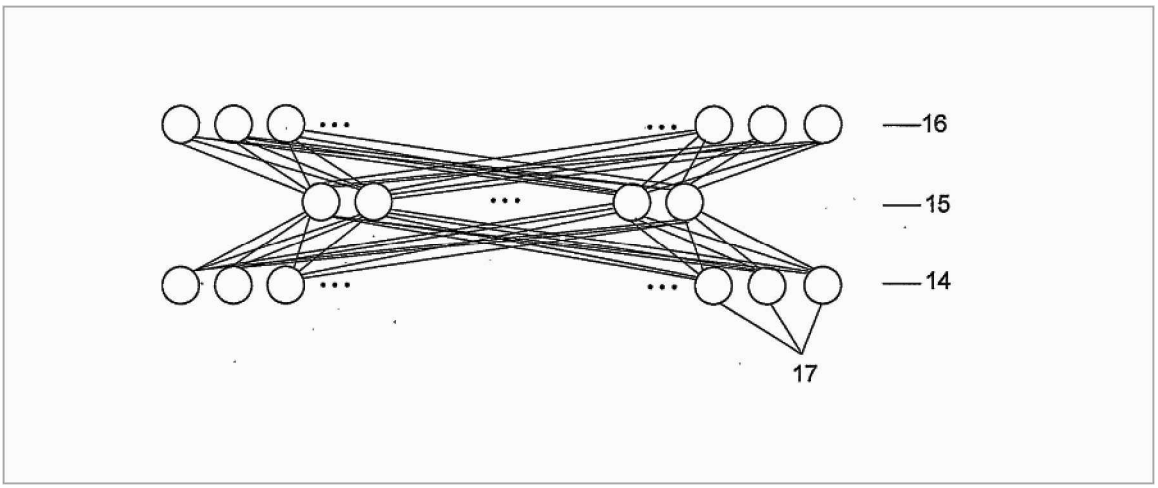
Example No. 5
Example of descriptive insufficiency of an artificial intelligence CII
Document / Case - EP 1 955 228 / T 0161/18
Title - Process for Determining Heart Rate

BACKGROUND

This invention relates generally to a method for determining heart rate. Heart rate is a term used in cardiac physiology that describes the volume of blood pumped by the heart per unit of time. The patent application describes a variety of known ways to determine heart rate, all of them invasive and therefore "expensive, impractical and reserved for intensive care medicine."

Furthermore, the invention describes how it is known to perform a pressure measurement non-invasively in a peripheral region as an indicator of heart rate. However, the arterial blood pressure measured in the periphery is distorted compared to the aortic pressure, thus requiring that the peripheral blood pressure curve be mapped to a corresponding central blood pressure curve, that is, to the equivalent aortic pressure. Such a transformation of the blood pressure curve is, according to the patent application, extremely complex.

Therefore, the patent application aims to provide a method for determining the heart rate that, based on the blood pressure curve measured in the periphery, allows the precise determination of the heart rate, in which the computational performance must be maintained. within reasonable limits to allow its integration into a mobile device.



TEXT TO ANALYZE / CLAIM

Claim 1

Method for determining heart rate from a blood pressure curve measured in the periphery, in which the blood pressure curve measured in the periphery is arithmetically transformed into the equivalent aortic pressure and the heart rate is calculated from the equivalent aortic pressure, characterized in that the transformation of the blood pressure curve measured in the periphery into the equivalent aortic pressure is carried out with the help of an artificial neural network whose weighting values are determined by learning.

EXAM ANALYSIS

The application uses an artificial neural network to transform the blood pressure curve measured in the periphery into the equivalent aortic pressure. With respect to the training of the neural network of the invention, the description simply reveals that the input data must cover a wide spectrum of patients of different age, sex, constitution, health status and the like, to avoid specialization of the network. But the application does not reveal what input data is suitable for training the artificial neural network of the invention, or at least a data record suitable for solving the underlying technical problem. Therefore, the training of the artificial neural network cannot be reproduced by the person skilled in the art, so the person skilled in the art cannot carry out the invention.

Thus, the present invention based on machine learning, in particular

in the context of an artificial neural network, is not sufficiently described, because the training of the invention cannot be reproduced due to lack of disclosure. As regards the inventive level, claim 1 solves the technical problem with the help of an artificial neural network, the weighting values of which are determined by learning. The applicant argued that the use of an artificial neural network has the technical effect that the heart rate based on the arterial blood curve measured in the periphery can be determined reliably and accurately taking into account the resonance phenomenon and the nature of narrow band in the low frequency range of the transmission path between the aorta and the periphery, in which the calculation efforts are kept within reasonable limits, allowing an integration in a mobile device. However, the artificial neural network of claim 1 is not considered to take into account the resonance phenomenon and the narrowband nature in the low frequency range of the transmission path between the aorta and the periphery, because neither claim nor the description contain details about the training of the artificial neural network.

The mere mention that the weighting values are determined by learning does not go beyond the normal understanding of an artificial neural network by the person skilled in the art. In this case, the claimed neural network is not tailored for a specific claimed application. It is considered that only a non-specific adaptation of the weighting values is carried out, which is part of the nature of any artificial neural network. Therefore, the argued technical effect is not achieved in the claimed method in the entire range and cannot be considered in the sense of an improvement over the state of the art when evaluating the inventive step.

Since the object of claim 1 does not lead to an improvement over the prior art, the objective problem is to provide an alternative to the method described in the closest prior art. The solution to this problem (using an artificial neural network, whose weight values are determined through training) does not involve an inventive step. The use of artificial neural networks not only follows a general technological trend, but was also known for the transformation of the blood pressure curve measured in the periphery into the equivalent aortic pressure.

OBSERVATIONS: In this example, the European Patent Office did not grant the patent to determine heart rate with the help of an artificial neural network. The decision gives some very relevant clues about how specifically the neural network and its adaptation to the particular use case should be described in the application:

1. The invention based on machine learning in particular in connection with an artificial neural network is not sufficiently described, because the training of the artificial neural network according to the invention cannot be carried out due to lack of disclosure.

2. Since in the case the claimed method differs from the state of the art only by an artificial neural network, the training of which is not described in detail, the use of the artificial neural network does not lead to a special technical effect of an artificial neural network that could justify the inventive level.

Example No. 6
Example of a technical nature in an artificial intelligence CII
Document / Case - EP 1 418 509 / T 1286/09
Title - Method Using Image Recomposition to Improve Scene Classification

BACKGROUND
This invention relates to the field of digital image processing. In particular, to a method for improving image classification by training a semantic classifier with a set of color image exemplars, which represent "recomposed versions" of an image exemplar, in order to increase the diversity of training exemplars.

According to the description, known scene classification systems enjoy limited success on unconstrained image sets due to the incredible variety of images within most semantic classes. Example-based systems should take this variation into account in their training sets. However, even hundreds of exemplar images do not necessarily capture all of the variability inherent in some classes. As an example of such variability, the application provides the class of sunset images that can be captured at various stages of the sunset, so they can have more or less

bright colors and show the sun in different positions with respect to the horizon.

Basically, the essence of the invention is to increase the diversity of exemplar images used to train a semantic classifier by systematically altering an exemplar color image to generate an expanded set of images with the same salient features as the initial exemplar image. More specifically, an exemplar image can be altered through "spatial recomposition," that is, cropping its edges or mirroring it horizontally. Another technique to expand the set of exemplar images is to change the color distribution or change the color along the illuminant axis (i.e., red-blue).

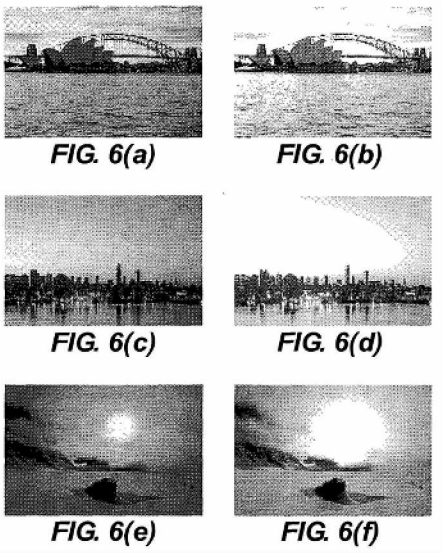


FIG. 6(a) FIG. 6(b)
FIG. 6(c) FIG. 6(d)
FIG. 6(e) FIG. 6(f)

TEXT TO ANALYZE / CLAIM

Claim 1

A computer-implemented method for improving image classification of a digital image comprising the steps of:

(a) provide an exemplary color image;

(b) systematically altering the exemplary color image to generate an expanded set of images, wherein systematically altering the exemplary color image comprises:

- spatially altering the exemplary color image to generate an expanded set of spatially altered images, wherein the spatial alteration of the exemplary color image comprises:

- horizontally mirror the exemplary color image, thereby doubling the number of images in the expanded set of images, or
- systematically crop the edges of the exemplar color image from one or more sides of the exemplar color image, thereby increasing the number of images in the expanded set of images; and/or
- temporally alter the exemplary color image to generate an expanded set of temporally altered images, whereby the images in the expanded set simulate the appearance of capturing an image earlier or later in time, where temporal alteration of the image of exemplary color includes:
- systematically change the color distribution of the exemplary color image, thereby increasing the number of images in the expanded set of images, or
- systematically change the illuminant quality of the exemplary color image, thereby increasing the number of images in the expanded set of images; and

(c) use a semantic classifier and the expanded set of images to determine an image classification for the exemplary color image;
- where the expanded set of images is used to train the classifier in step (c), providing an improved classifier.

EXAM ANALYSIS

In this case, it was not questioned whether the training of a color image classifier was technical. Simply, the combination of claimed features of the invention was compared with the available state of the art to identify compliance with the inventive level:

Paper D3 does not address the problem of training a color image classifier, but rather the problem of improving recognitions of an original character represented by a set of two-level degraded images. Furthermore, it reveals the processing of many (degraded) images of a character to provide an approximation of the original character, while the application teaches how to process an exemplar image to generate a set of exemplar images, so that the original exemplar image and the set of corresponding exemplar images share some salient features of a given semantic class of images.

Furthermore, also the use of image degradation models for automatic training of image classifiers mentioned in the background of D3 is not comparable to the invention. In fact, the state of the art

recognized in D3 starts from a single ideal prototype image and processes it to generate a large number of pseudo-randomly degraded images that train the classifier to recognize defective images of the same symbol (D3, page 2, lines 35 to 37). However, the invention starts from an exemplary image of the real world and alters it "spatially" or "temporally", to produce a set of images that simulate other possible "images of the real world" in the same image category.

Therefore, the teachings of document D3 cannot be considered as a suitable starting point for the present invention. Furthermore, the other available prior art did not reveal anything more relevant to the claimed invention:
Regarding prior art documents D1 and D2 cited in the review, document D1 refers to the use of learning machines to discover knowledge from data. Therefore, it refers to a different field of technology and is not relevant to the present invention. For its part, document D2 was cited only as evidence that it was generally known to provide a digital representation of an image. Therefore, it is considered that the claimed invention involves an inventive step.

OBSERVATIONS: In this case, the European Patent Office granted a patent to an CII on a method to improve image classification by training a semantic classifier.

Example No. 7
Example of technical effect of CII related to artificial intelligence
Document/Case CO NC2016/0002707
Title - Method, computer-readable medium and system for monitoring automated assistants

BACKGROUND/SUMMARY
The invention relates to a process for classifying anesthetic depth that comprises the stages of collecting biological signals, conditioning of said signals, monitoring activity of the Central Nervous System (CNS) and Autonomous System (ANS) and classifying patterns in anesthetic depth. Through the use of a previously trained neural network, the state of anesthetic depth to which a patient is subjected is classified and therefore monitored.

TEXT TO ANALYZE / CLAIM

1. Process to classify anesthetic depth that includes the stages of Collection of biological signals, Conditioning of said signals, Monitoring of activity of the Central Nervous System (CNS) and Autonomous System (ANS) and Classification of patterns in anesthetic depth, where the collection of biological signals includes signal collection of Electroencephalogram (EEG), Electrocardiogram (ECG) and mean non-invasive arterial pressure (NIBPm); In the conditioning of these signals, artifacts external to the patient and biological noise are eliminated by applying digital filters and a wavelet transform method; In the monitoring of CNS and ANS activity, signal processing is carried out to categorize patterns associated with the Central Nervous System (CBI) and the Autonomous Nervous System (CVI, CSI, NIBPm) in response to clinical events during the surgical procedure and measures the complexity of the EEG signal waveform using the CBI index (Complexity Brainwave Index) and integration with the indices of Heart Rate Variability (HRV), CVI (Cardiac vagal Index), CSI (Cardiac Sympathetic Index) derived from the ECG signal; The patient's status is then classified in depth of anesthesia with the application of a previously designed and trained neural network.

OBSERVATIONS: In this case, the application of mathematical techniques/algorithms is evident to carry out classification processes in a specific set of data to determine the status of a patient in a situation or condition. Consequently, the application of these techniques is not oriented in a general or abstract manner, but is carried out for a specific group of data producing a particular technical effect.

Example No. 8

Example of technical effect of CII related to artificial intelligence

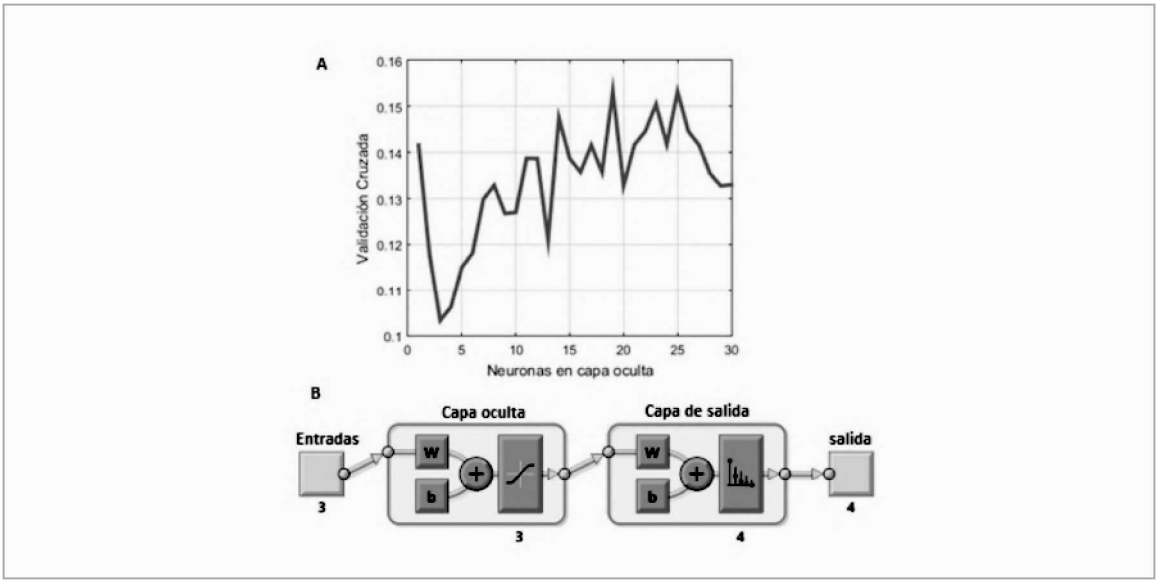
Document / Case CO NC2017/0008056

Title - Artificial intelligence process applied to a neural network for predicting malaria complications

BACKGROUND/SUMMARY

The invention corresponds to an artificial intelligence process applied to a neural network for prognosing malaria complications,

characterized in that it comprises a multilayer neural network, pre-fed with 10 or more input nodes(nodos de entrada), a series of hidden layers (capas ocultas)and an output node(nodo de salida) within an integrated development environment.
Using cross-validation(validación cruzada) techniques, the network groups patient data into training and validation groups. After determining the efficiency of the network, optimizing the number of intermediate neurons and the validation technique, the early diagnosis of complicated malaria is carried out. This results from obtaining greater sensitivity, specificity and efficiency for the identification of this type of patients than that achieved with traditional methods and this, without including parasitological evaluation.



TEXT TO ANALYZE / CLAIM

1. Method for prognosing malaria complications that makes use of artificial intelligence techniques characterized by the fact that it includes the stages of:

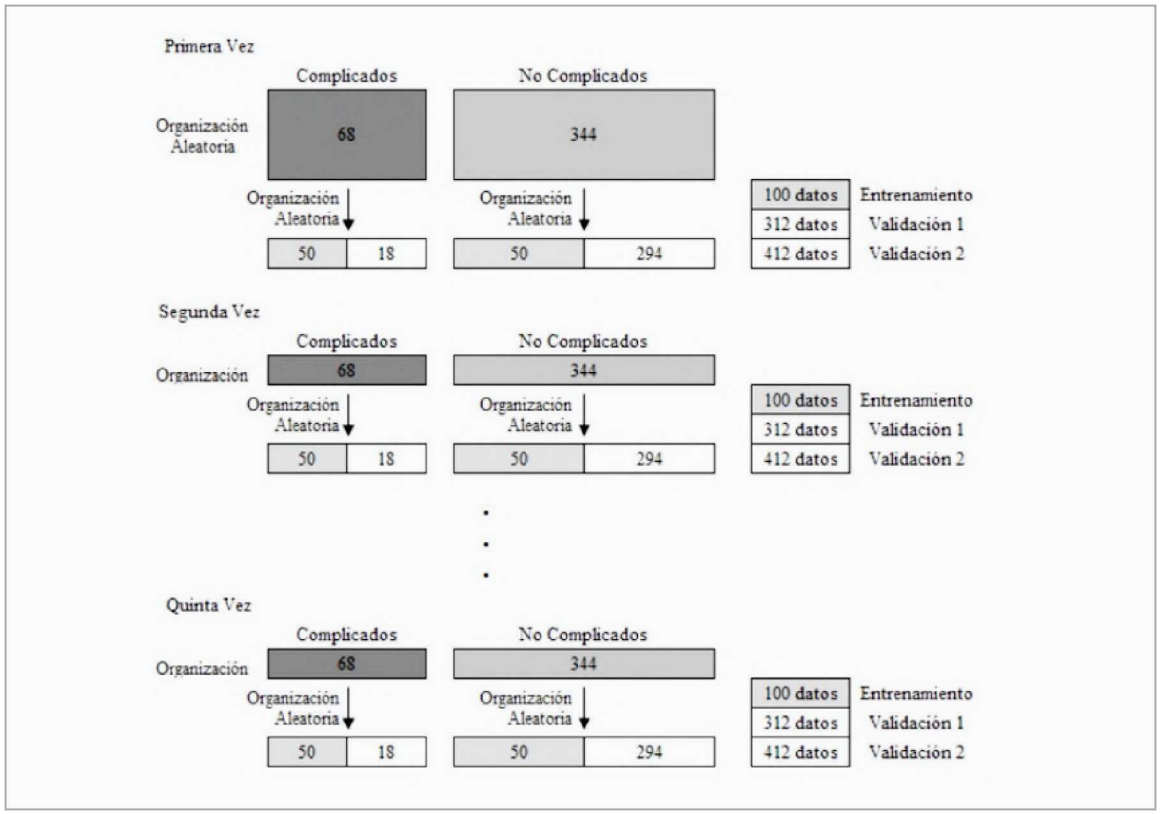
- provide a multilayer neural network comprising 10 or more input nodes, a set of hidden layers and an output node, configured to provide a forecast of complicated or uncomplicated malaria,
- calculate an optimal number of hidden layers of the neural network using a pyramidal geometric rule according to the following equation:

$$HN = \sqrt{nm}$$

where n is the number of inputs and m the number of outputs and where the number of intermediate neurons is a multiple of the value obtained (HN),

- enter as input data to the input nodes ten or more clinical variables that include at least: blood pressure, hemoglobin, leukocyte count, platelet count, total bilirubin, absence/presence of dyspnea, vomiting, previous history of infection malaria, previous use of antimalarial medications and persistent fever,
- train the neural network obtained through cross-validation randomization techniques, in order to obtain a training group of a patient population, selected from: V-cross validation, random V-cross validation, holdout and proportional sample by percentage
- apply the trained neural network to a subject to make a prognosis of malaria complications.

2. Artificial intelligence process according to claim 1, wherein there is a subsequent learning stage, in which the neural network learns to discriminate between complicated and uncomplicated patients within the training group, thus associating the clinical variables that are subsequently used for prediction in the general population.



EXAM ANALYSIS

In this case, claims 1 and 2 meet the patentability requirements, since they refer to a method for predicting malaria complications that makes use of artificial intelligence techniques, which differs from the closest state of the art, the article "Towards a precise test for malaria diagnosis in the Brazilian Amazon: comparison among field microscopy, a rapid diagnostic test, nested PCR, and a computational expert system based on artificial neural networks", in which the invention includes providing a multilayer neural network that comprises 10 or more input nodes, a set of hidden layers and an output node, configured to provide a forecast of complicated or uncomplicated malaria, calculate an optimal number of hidden layers of the neural network using a geometric pyramid rule according to the following equation : HN = √ nm, train the neural network obtained through cross-validation randomization techniques, in order to obtain a training group of a patient population, selected from: V-cross validation, random V-cross validation, holdout and sample proportional by percentage and apply the trained neural network to a subject to make a prognosis of malaria complications.

Additionally, these differences are not suggested in the state of the art and, as a consequence, the effect of optimal development of the neural network is evident. In addition to the above, the claimed material is susceptible to industrial application. Consequently, claims 1 and 2 meet the requirements of novelty, inventive level and industrial application.

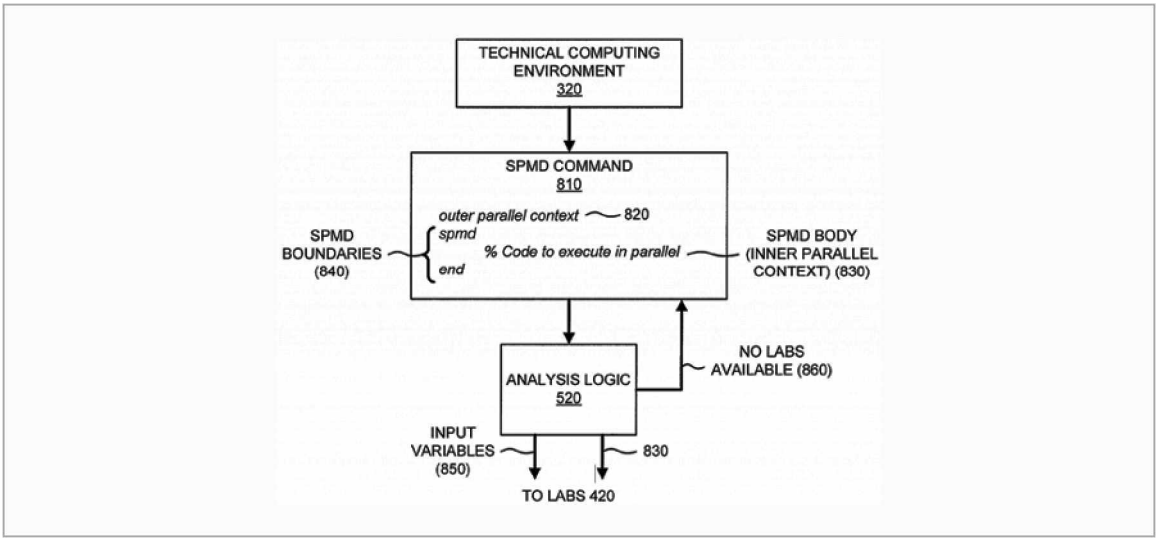
OBSERVATIONS: This process of the invention improves the prediction of the probability that a patient will present with complicated malaria. Consequently, the process solves a technical problem by contributing to the technical effect of predicting when a patient will have malaria complications.

Example No. 9
Example of a technical nature in a computer program CII
Document/Case WO 2009/143068 / T 0790/14
Title - Process of Using Parallel Treatment Structures

BACKGROUND

The request relates to the definition of a specific parallel SPMD (single program, multiple data) programming language construct,

including how it is supposed to run on a parallel computing system. Language construction provides the possibility of transferring variables to laboratories. According to one embodiment, if the variable that is transferred from the client to the laboratories is a distributed array, then the variable may be automatically redistributed to all laboratories. If the variable being passed from the client is a non-distributed array, then the variable can be replicated across all labs. If the variable being transferred from the labs to the client is a replicated array, then a replicated value can be received from either lab.



TEXT TO ANALYZE / CLAIM

Claim 1

A method implemented on a computing device to perform parallel processing, comprising:

- receiving (2210), from a client (500), a program (810), in which the program (810) comprises an SPMD command;
- analyze (2220) and transform the program (810);
- determine (2230) an internal parallel context (830) and an external parallel context (820) of the program (810) based on the analysis of the program (810),
- wherein the internal parallel context (830) and the external parallel context (820) include limits (840) of the program (810),
- wherein the limits (840) include an SPMD statement and a final statement,

- wherein the internal parallel context (830) includes an in-bounds code block (840) and the external parallel context (820) includes an out-of-bounds code block (840);
- execute (2240), by the client (500), the external parallel context (820) of the program (810) sequentially;
- detect input variables and output variables used within the internal parallel context (830), wherein the input variables include variables used within the internal parallel context before they are assigned values;
- assign (2270) the internal parallel context (830) of the program (810) and the detected input variables to two or more laboratories (420) for parallel execution,
- wherein the allocation comprises dividing a large data set into parts and providing each data part to a different one of the laboratories (420), so that each laboratory (420) executes the same program on its data fragment;
- where each of the laboratories (420) includes hardware, software or a combination of hardware and software that performs parallel processing,
- where there is no implicit data transfer to and from the client (500) and the laboratories (420) that will execute the internal parallel context,
- if an input variable to be transferred from the client (500) to the laboratories (420) is a distributed array, then the variable will be automatically redistributed to the laboratories (420),
- if an input variable to be transferred from the client (500) to the laboratories (420) is a non-distributed array, then the variable will be replicated in the laboratories (420) by executing one or more portions of the internal parallel context in the two or more laboratories (420);
- receive (2280) one or more results associated with the parallel execution of the internal parallel context of the two or more laboratories (420),
- where the names of the output variables are propagated to the external parallel context but the values associated with the output variables are not copied to the external parallel context; and
- provide (2290) one or more results to the external parallel context (820) of the program (810).

EXAM ANALYSIS

Programming language constructs are considered more abstract than programs as such, which are excluded from patentability, in accordance with Article 15 of Decision 486. Furthermore, programming language constructs have the intrinsic objective of enabling and facilitate the work of a programmer which in itself is not technical in nature.

Therefore, the design and definition of programming language constructs (including operational semantics, data flow, error handling, and side effects) are not considered to contribute to the technical nature of the topic in question, for which cannot establish the presence of an inventive step. In the case, the claimed method simply represents the operational definition of the SPMD command.

The applicant argued that the computer-implemented method as claimed provides an efficient and flexible way of allocating resources. Furthermore, the claimed method supposedly minimizes data transfer by using a remote reference. However, a computer-implemented method of executing a program could produce a technical effect while executing a program, for example, if the new method executes the program faster than a prior art method. To show this effect, the new method would have to run the same program as the prior art method.

In the case, a human programmer would have to write a second program containing the new programming language construct ("SPMD command") to perform exactly the same function (i.e., have the same input-output behavior) as the first. program that does not contain the new construct and can be executed by the execution method of the previous technique.

However, no technical effect is achieved with a new execution method with respect to an existing execution method, if the programming language accepted by each of the two execution methods is different. This is the case if the new programming language contains at least one new command.

Consequently, in the case of new programming language constructs, the required comparison is impossible. Therefore, no technical

effect can be shown for a new language construct, making this CII non-technical.

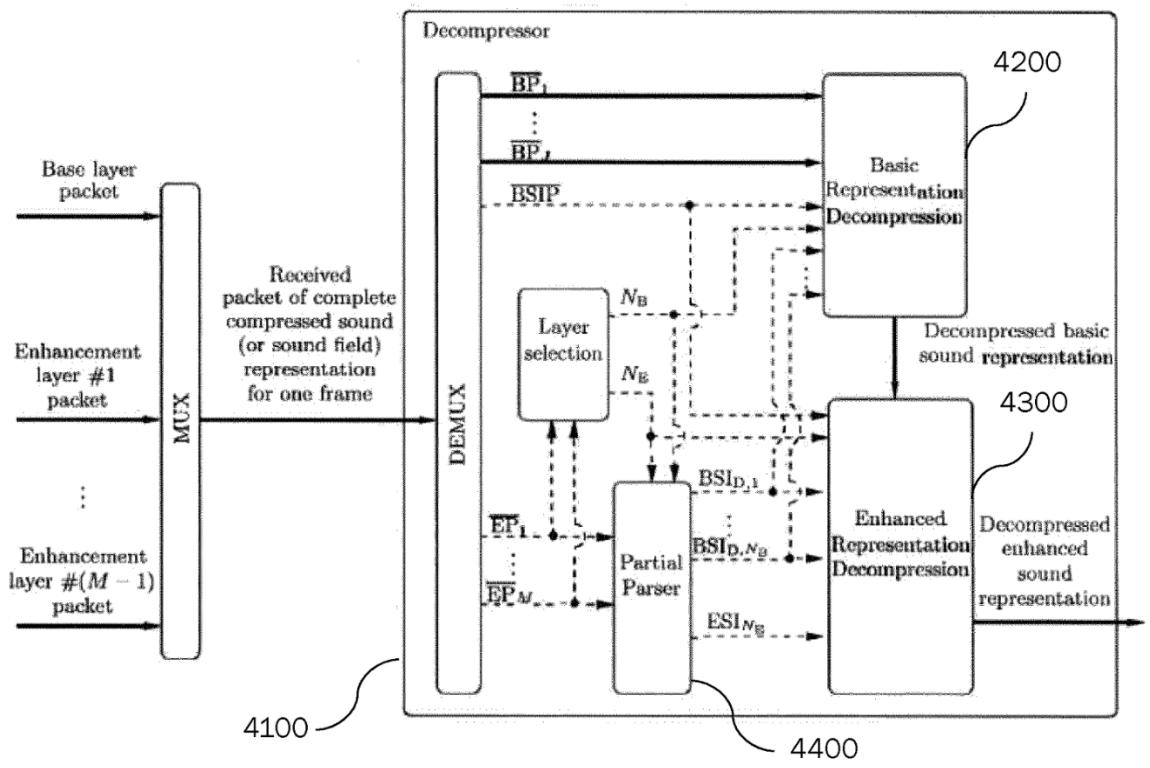
OBSERVATIONS: The European Patent Office refused to grant a patent for an CII for programming language constructs. For programming language constructs, it is impossible to display a technical effect (such as accelerated execution of a corresponding program). Consequently, a language construction cannot contribute to the inventive level either.

Example No. 10
Example of technical effect of CII related to data structures
Document / Case CO NC2018/0004866
Title - Method and apparatus for layered decoding for compressed sound or sound field representations

BACKGROUND/SUMMARY
The invention relates to methods and apparatus for layered audio coding of higher order ambisonic field sound representations. The above coding allows the quality of the received sound representation to be adapted to the transmission conditions in order to avoid unwanted signal losses. The layered representation contains a base layer and one or more hierarchical enhancement layers, where each layer contains sound representation information.

TEXT TO ANALYZE / CLAIM
1. A method of decoding a compressed representation of Higher Order Ambisonic sound HOA, of a sound or sound field that is encoded in a plurality of hierarchical layers using layered coding, the method comprising:
- receiving (S3010) a bit stream containing the compressed HOA representation corresponding to the plurality of hierarchical layers including a base layer (2200) and at least two hierarchical enhancement layers (2300), wherein the plurality of layers have assigned components of a basic compressed sound representation of the sound or sound field, where the components correspond to a plurality of monaural signals and are assigned to respective layers in respective component groups and decoding the compressed HOA representation over the on the basis of basic side information (2120) that is

associated with the base layer (2200) and on the basis of the lateral improvement information (2140) that is associated with at least two hierarchical enhancement layers (2300), where the basic side information (2120) includes basic independent side information (2120) related to first individual monaural signals of the plurality of monaural signals that will be decoded independently of other monaural signals of the plurality of monaural signals.



11. An apparatus (6000) for decoding a compressed Higher Order Ambisonic sound HOA representation of a sound or sound field that is encoded in a plurality of hierarchical layers by layered coding, wherein the apparatus (6000) comprises:

- a receiver (6010) for receiving a bit stream containing the compressed HOA representation corresponding to the plurality of hierarchical layers including a base layer (2200) and at least two hierarchical enhancement layers (2300), where the plurality of layers have assigned components of a basic compressed sound representation of the sound or sound field, where the components correspond to a plurality of monaural signals and are assigned to respective layers in respective component groups and a decoder for decoding the HOA representation

compressed on the basis of basic side information (2120) that is associated with the base layer (2200) and on the basis of enhancement side information (2140) that is associated with at least two hierarchical enhancement layers (2300), wherein the basic side information (2120) includes basic independent side information (2120) related to first individual monaural signals of the plurality of monaural signals that will be decoded independently of other monaural signals of the plurality of monaural signals.

EXAM ANALYSIS

In this case, claims 1 to 15 meet the patentability requirements, since they refer to a method and an apparatus for decoding a compressed representation of Ambisonic Higher Order HOA of sound, which differs from the closest state of the art WO2015140293 , in which it does not mention a method and a sound decoding apparatus that allows decoding a compressed HOS representation on the basis of basic lateral information that is associated with the base layer and on the basis of the enhancement lateral information that is associated with the least two layers of hierarchical improvement. Additionally, this difference is not suggested in the state of the art and, as a consequence, the effect of avoiding unwanted signal loss during the transition of the sound signal within a transmission channel with variable conditions of time is evident. In addition to the above, the claimed material is susceptible to industrial application.

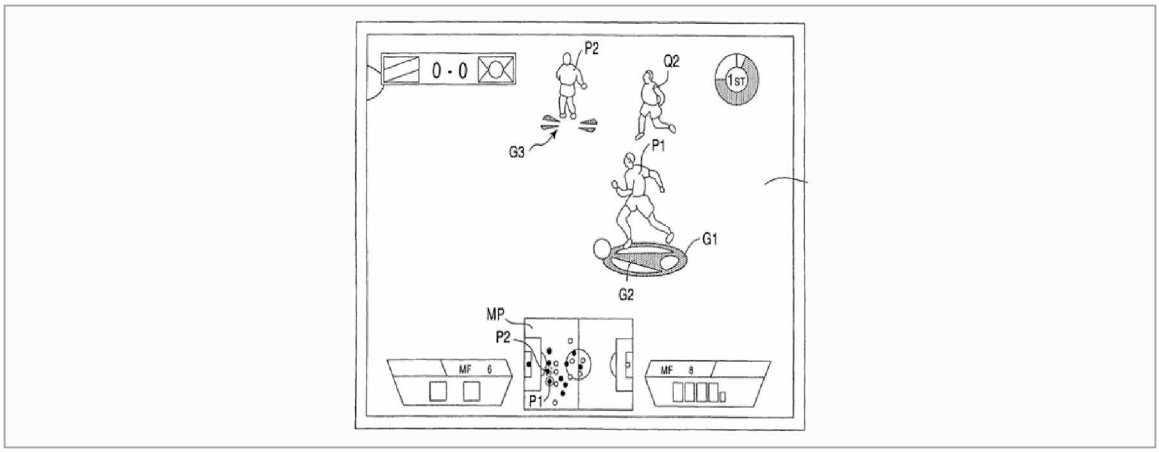
Consequently, claims 1 to 15 meet the requirements of novelty, inventive level and industrial application.

OBSERVATIONS: In this case, the encoding of audio information in hierarchical layers is used to improve the quality of the sound representation, therefore, the transformation of the audio information data set allows generating an additional technical effect to the claimed apparatus and method.

Example No. 11
Example of a technical nature in a gaming CII
Document / Case EP 0 844 580 / T 0928/03
Title - Video Game System and Storage Medium for Storing Programs for Use in the Video Game System

BACKGROUND

The invention relates to an interactive video game (for example, a virtual football game) in which a user controls at least one player character displayed on a screen.
One aspect of the invention is to display a ring-shaped guide mark (see G1 in the image below) around the foot of the active player character. Additionally, a teammate of the active player is accompanied by a pass guide mark (G3) so that the active player's character can easily pass the ball to the teammate. A central aspect was that the pass guide mark is displayed at the edge of the display area even when the other player's character and the pass guide mark leave the display area of the monitor



screen to correctly indicate the direction in which the ball must be passed by the player character.

TEXT TO ANALYZE / CLAIM

Claim 1

A guidance display device for use in a video game system of the type in which a pair of teams, each with a plurality of player characters (P1, P2, P3) displayed on a monitor screen (13), compete with each other in a single gaming medium (b), at least one of said teams being under the control of a player through a controller (8), said guide display device comprising:

- tracking means to identify the player character (P1) who maintains said gaming medium (b), and
- guide display means for displaying a guide mark (G1, G2) accompanying the player character (P1, P2, P3) identified by said tracking means and indicating that said game means (b) is maintained by said player character (P1) identified by said tracking means,
- characterized in that [a] said guide mark (G1, G2) is ring-shaped and is shown in the field plane image (f) around the player character (P1, P2, P3) at a location near a foot of said player character (P1, P2, P3),
- [b] said guide display means further displays a pass guide mark (G3) accompanying another player character (P2) belonging to the same team as said player character (P1) maintaining said game means (b) and to which said game medium (b) can be most easily moved from said player character (P1) by maintaining said game medium (b), and
- [c] said guide display means shows said pass guide mark (G3) accompanying another player character (P2) so that a part of the pass guide mark (G3) is displayed at the end of the display area even when said other player character (P2) and said passing guide mark (G3) leave the display area of the monitor screen to correctly indicate the direction in which the player character should pass the game means (b) (P1).

EXAM ANALYSIS

First, patent eligibility was not an issue in the case. The guide display device according to claim 1 effectively represents a physical entity comprising in particular display means that have a technical character by their nature.

The display steps of the independent method claim involve the use of display means that provide a technical character to the method.

With respect to the inventive step, a difference from the closest prior art, which indicates the active player character by displaying a small triangle above his head, was that the guide mark is ring-shaped and displayed around a foot of the active player character.

The aforementioned difference involves an enlarged size of the guide mark which avoids any risk of the mark being obscured by a neighboring player character. Making a possibly hidden indicator clearly visible on a screen to the user of an interactive video game does not exclusively address a human mental process (i.e., it is not exclusively determined by the cognitive meaning of the information presented) but rather contributes a technical function. objective to the screen. The functional quality is not canceled by the fact that the information displayed will also enter into a user's decision when interacting with the video game displayed on the screen.

In conclusion, the enlarged size of the guide mark will enter into the evaluation of the display device and method with respect to the inventive step.

However, during the analysis it was ruled differently regarding the shape of the guide mark ring and its arrangement near the foot of the player character. The precise geometric shape (ring) of the guide mark is not considered to achieve any effect other than an aesthetic impression. The form of the guide mark refers to mere illustrations in the menu design that are not considered technical. Consequently, the annular shape of the guide mark is merely an aesthetic creation, so it cannot contribute to the inventive level.

The same goes for the precise location (related to feet) of the guide mark (G1) with respect to the player character to be marked. In view of the preferred modality of the video game (football), it can be added that marking the foot area of a player character can also be governed by the non-technical rules of the game, confirming the non-technical nature of that contribution.

Another difference from the closest prior art was that a teammate of the active player character is accompanied by a passing guide mark so that the active player character can easily pass the game medium (e.g., the ball) to the teammate. That is, when the non-technical and rules-based aspects of the game are removed from this feature, the underlying technical contribution relates to the highlighting of a second point of interest, in addition to

the active player character, on the display screen for drawing. the user's attention to the second point on the screen. That is a technical contribution that must be considered in the discussion about the inventive step.

A third difference from the closest prior art was that the pass guide mark is displayed at the edge of the viewing area even when the other player's character and the pass guide mark leave the viewing area. of the monitor screen to correctly indicate the direction in which the player character should pass the game medium (for example, the ball). The technical problem underlying this feature relates to conflicting technical requirements: on the one hand, a part of an image is desired to be displayed on a relatively large scale (e.g. zoom); On the other hand, the display area of the screen may be too small to show an entire area of interest. The resolution of this conflict by technical means implies a technical contribution that must be considered in the discussion about the inventive level.

In the case the first two differences were considered obvious, although they were technical contributions. The third difference, highlighting a second point of interest in addition to the active player character on the screen to draw the user's attention to the second point on the screen, was found not to be obvious.

The technical contribution by feature [c] addresses the conflicting technical requirements of displaying a magnified portion of an image (which the user may have zoomed into) and maintaining an overview of an area of interest that is larger than the display area. Conventional video game GUIs compromise by overlaying a reduced-scale map of the area of interest onto the magnified portion of the image (covering a considerable portion of that portion), or by zooming out (losing detail) or by changing the viewing perspective (losing the focus).

Feature [c] allows you to display an enlarged portion of the image and provide general information to the user without sacrificing the surface, detail, or focus of the enlarged portion of the image.
Therefore, it is considered that they have not revealed any obvious pointer to a display device that displays a guide mark at

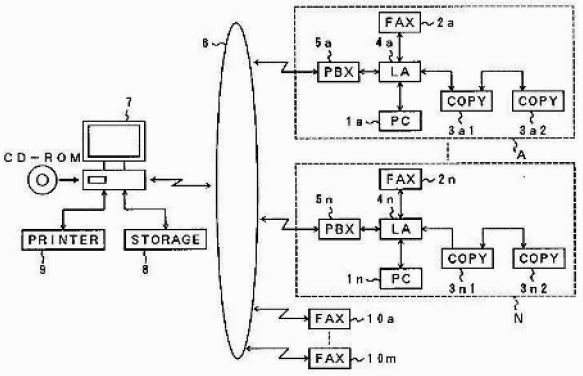
the end of the display area to indicate a second point of interest that is outside the display area of the monitor screen. Therefore, the invention of claim 1 is considered to involve an inventive step.

OBSERVATIONS: The European Patent Office granted an CII patent on graphic design aspects of a video game that improved its functional quality. Making a possibly hidden indicator clearly visible on a screen to the user of an interactive video game does not exclusively address a human mental process (i.e., it is not exclusively determined by the cognitive meaning of the information presented) but rather contributes a technical function. objective to the screen. Highlighting a second point of interest, in addition to the active player character, on the display screen to draw the user's attention to the second point on the screen is a technical contribution to consider in the inventive step discussion.

Example No. 12
Example of a technical nature in an CII of an economic-commercial method
Document / Case EP 0 767 436 / T 0172/03. (RICOH case)
Title - System and Method of Order Management Taking into account the Budget Limit

BACKGROUND
The invention relates to an order management system and a method for automatically placing an order for particular consumable supplies based on order information entered by each department or section of a user of the system. Expendable supplies are copy papers or toner cartridges used in an office. The objective of the solution is to provide an order management system and method that can unitarily and automatically manage order processes based on the order information provided by each department or section.

FIG. 1



TEXT TO ANALYZE / CLAIM

Claim 1

1. An order management system for automatically placing an order with one of a plurality of suppliers, said order placement being performed in a system environment having a plurality of sections, said ordering system comprising:

a plurality of terminal units (AN) provided to the respective computers, said terminal units are located in a respective section and include means for entering an order information to be transmitted to a communication network (6) connected to each of said units terminals, said order information including a section code of the orderer and a central management unit (7) connected to said communication network (6) to receive the order information; said central management unit (7) includes:

a) collection processing means (76) for
- manage, with respect to each order, order history information and section information and
- calculate a momentary sum based on a total cost of previous orders of a section based on the order history information of one of the computers sending the order information, including the section code of this orderer and of order information sent from computers; and

b) order permission means to allow the execution of an order

process when the momentary sum is within the budget of the order's section;

wherein said order management system is configured to store a section master file (82) comprising said order history information and said section information for each section including a section code (82a) and a budget (82d) of each section, and

said collection processing means (76) are configured to automatically place said order when said order information is entered by one of a plurality of orders if the ordering process is permitted by said permission means.

EXAM ANALYSIS

The request had initially been denied due to lack of inventive step. In accordance with the initial reasoning, it was considered that the patentable subject matter regime was only entered with the design and programming of the computerized system to implement the improved order placement mechanism. The examiner considered such an implementation obvious, taking into account that the relevant qualified person was an expert in computer science. It was even considered that the expert was actually a team composed of a business expert and a programmer, who had the knowledge of the economic concept and structure of the improved order placement mechanism.

In the appeal it was considered that the patentability of an invention, for which the inventive level is a requirement, must arise from characteristics and aspects of the invention from which a technical solution to a technical problem can be inferred, so they are of technical nature.

In the case of a mixed type invention (including non-technical aspects), the patentability examination normally requires an analysis of the invention and the construction of the claims to determine the technical content of the claims as a preliminary step. The required analysis of the characteristics of the claims is only possible ex post facto, that is, with knowledge of the patent application and the invention to which it refers.

Furthermore, in this case a definition was given for the term "person skilled in the art." According to the COMVIK decision, "if the technical problem is related to the computer implementation of a business, actuarial or accounting system, the trained person will be someone trained in data processing and not simply a businessman, actuary or accountant." In the present case, the relevant "person skilled in the art" was defined as a software project team. It does not include any business experts, but has knowledge of the characteristics and business-related aspects of the order management method, in the form of a requirements specification, as part of the formulation of the technical problem to be solved.

The closest state of the art was considered to be a distributed information system comprising multiple general purpose computers in different locations and connected by a communication network known and in use in a large number of companies for office automation long before. from the priority date in 1995.
In summary, the claimed invention was considered to be distinguished from a normal distributed information system only in terms of functional characteristics and data structures to implement the essentially commercial characteristics of the order management method. The claimed technical solution did not go beyond the concept of a mere automation of the limitations imposed by business-related aspects, since such automation using conventional hardware and programming methods is considered obvious to the expert. Therefore, claim 1 was determined to lack an inventive step.

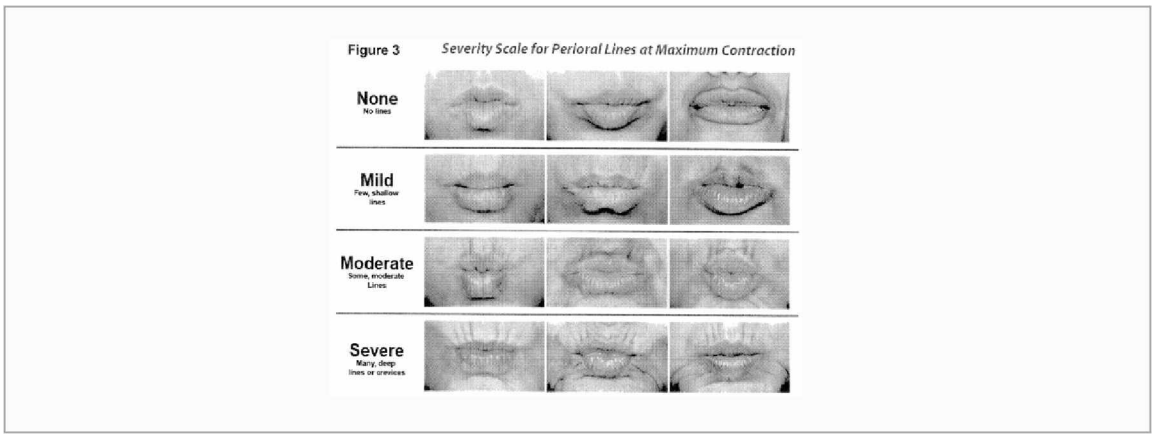
OBSERVATIONS: The RICOH case provides an objective approach for evaluating the inventive step for CIIs. It teaches you to first identify the claimed features that define the non-technical part of the invention and then to identify the claimed features that are clearly technical

Example No. 13
Example of a technical nature in an CII for the presentation of information
Document / Case EP 2369956 / T 0670/19
Title - Scales and Clinical Evaluation Methods

BACKGROUND

The invention relates to scales for performing clinical evaluation of an individual, in particular for effectively rating the fullness of the lips or the severity of perioral lines or oral commissures.

According to the application, such scales would be useful in both clinical practice and clinical trial research. In particular, in clinical trial research, objective quantification is essential to measure the effectiveness of an investigational treatment by comparing the severity of a condition before treatment with that measured after treatment. For a new treatment to achieve regulatory approval for marketing, its effectiveness must be documented in clinical trials. Valid and reliable outcome measures are also important in evidence-based medicine to provide comparisons between similarly designed trials in the literature.



TEXT TO ANALYZE / CLAIM

Claim 1

- A system of scales to evaluate at least one characteristic of the mouth area of an individual, the system comprises:
- a lip fullness scale comprising illustrations of the mouth area of human subjects, the illustrations are organized into different categories representing levels of lip fullness; characterized in that the system also includes:
- a severity scale for perioral lines at rest comprising illustrations of the mouth area of human subjects, the illustrations are organized into different categories representing the severity levels of perioral lines at rest;

- an oral commissure severity scale comprising illustrations of the mouth area of human subjects, the illustrations are organized into different categories representing oral commissure severity levels; and
- a severity scale for perioral lines at maximum contracture.

EXAM ANALYSIS

Claim 1 relates to a system comprising a plurality of scales, each of which is associated with a specific characteristic of the mouth area, where each scale in turn comprises a plurality of illustrations representing different levels of severity of the respective characteristic. It was considered that the characteristic "illustration", in the context of a system claim, does imply the presence of a concrete physical medium carrying said illustrations and from which they can be viewed or displayed, for example, a sheet of paper, a whiteboard, a screen or the screen of a computer or tablet. Therefore, the implied presence of a physical medium confers technical character on at least part of the subject matter of the independent claim and this regardless of a possibly non-technical nature of the cognitive content of the illustrations carried or displayed on the physical medium "per se".

OBSERVATIONS: In this case, it was evaluated whether the "illustrations", in the context of a claim for a system, imply the presence of a specific physical medium that carries the illustrations. Therefore, the implicit presence of a physical medium confers technical character to at least part of the object of the independent claim.

Example No. 14
Example of a technical nature in an CII of mental acts
Document / Case EP2133836 / T 1150/13

Title - Analyze the Return on Investment of Advertising Campaigns Through Cross-Correlation of Multiple Data Sources.

BACKGROUND

This invention generally relates to the protection of information privacy. The invention includes a level of a processing system configured to receive data, where said level may cover, for

example, a marketing research company. The market research company collects data on households to measure the effectiveness of ads. Data is received from one or more data providers, including a digital television set-top box (DTSB) that provides clickstream data and other data related to household viewing habits.

The data received comprises a first identifier. This could be a customer account number used as a household identifier by the data provider. To link data related to the same household from different data providers, there is a thesaurus that does just that. The thesaurus appears to be generated by a third party entity (list comparator) that is entrusted with personally identifiable information. The list matcher uses household addresses to link account numbers (first identifiers) from different data providers and assigns a key (TRA_KEY) to each household. The key does not contain personally identifiable information (PII).

The marketing research company obtains the thesaurus from the third party and uses it to link customer account numbers related to the same household. Since neither the customer account numbers nor the thesaurus contain PII, privacy can be preserved.

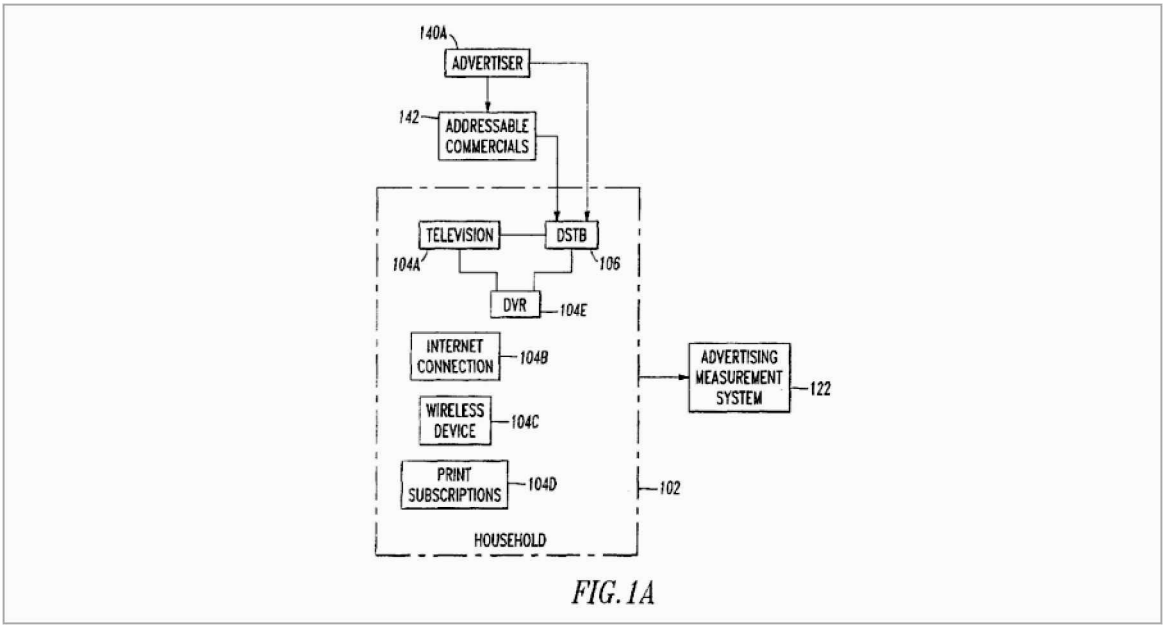


FIG. 1A

TEXT TO ANALYZE / CLAIM

Claim 1

A computer system for data processing, which system includes:

- a level of a processing system configured to receive data from one or more data providers 136 comprising at least one content delivery source 104 located in a home 102 of a consumer, the received data comprising a first identifier associated with the household 102 assigned by data provider 136;
- means 134 for generating a thesaurus 138 that relates each first identifier associated with the household 102 with a second identifier comprising personally identifiable information associated with the same household 102, wherein the means 134 for generating a thesaurus 138 assigns a key to the second identifier; and
- a module 132 configured to use the thesaurus 138 and key to produce data associated with the household 102 without the second identifier associated with the household 102.

EXAM ANALYSIS

In this case claim 1 was considered to contain a combination of technical and non-technical features. In fact, the central features of the invention summarized above were considered to be abstract administrative steps, devoid of technical character.

The applicant argued that the invention saved bandwidth and improved data security. The bandwidth savings came from using a central authority to generate the link between data from different sources. Otherwise, the marketing research company would have to obtain and store many different customer IDs.

However, the invention is not seen to provide bandwidth savings. Neither claim 1 nor the description define the amount of data stored and sent between the different entities. In fact, bandwidth saving is not mentioned as an issue anywhere in the description.

Data must be stored somewhere within the system, and while a central data warehouse can have some benefits, it also creates overhead. However, the invention is not observed to provide bandwidth savings. Neither claim 1 nor the description define the amount of data stored and sent between the different entities. In fact, bandwidth saving is not mentioned as an issue anywhere in the description. Data must be stored somewhere within the system, and while a central data warehouse can have some benefits, it also creates overhead.

The role of the central list comparator is about trust and not about storage or bandwidth. For some reason, the list matcher has access to PII, allowing it to generate the link between different client accounts. This is an administrative problem rather than a technical one.

Furthermore, privacy protection, by replacing PII (an address) with non-PII (a key), is considered non-technical. It is an administrative scheme or a mental act.

Therefore, it was concluded that the invention simply amounts to the implementation of a non-technical method in a computer system. Claim 1 was determined to lack an inventive step.

REMARKS: In this case, the European Patent Office did not grant a patent on the concept of linking customer data with a key instead of personally identifiable information to improve privacy protection. Protecting privacy by replacing PII (an address) with non-PII (a key) is not technical. It is an administrative scheme or a mental act.

Example No. 15
Example of a technical nature in a GUI CII
Document / Case EP1624368 / T 1677/18
Title - Three-Dimensional Motion Graphics User Interface and Method and Apparatus for Providing the Same

BACKGROUND
The invention aims to provide an enhanced three-dimensional motion graphics user interface (3D MGUI). According to one aspect, the 3D MGUI comprises a first polyhedron component that is formed by a plurality of faces. At least one of the plurality of faces that are subordinate to the first polyhedron component has predetermined attributes and displays information according to the attributes. The first polyhedron component is separated into a plurality of second polyhedron components based on the user's action with respect to the faces. A hierarchy of menus and submenus are assigned to specific faces of these polyhedral components.

FIG. 3A

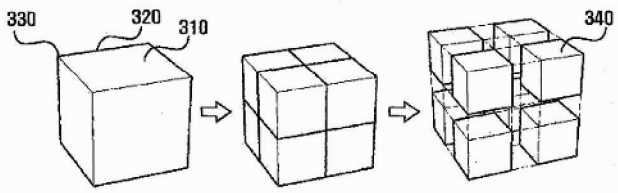
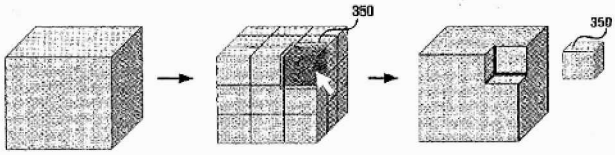


FIG. 3B



TEXT TO ANALYZE / CLAIM

Claim 1

An apparatus (500) for providing a three-dimensional motion graphics user interface, the apparatus comprising:

- a control module (530) that creates a first polyhedron component (240, 410, 1810) formed by a plurality of faces, in which at least one face (310) of the plurality of faces of the first polyhedron component has predetermined attributes and displays information from among the information that is stored hierarchically using menus and submenus differently according to the attributes and the first polyhedron component is separable into a plurality of second polyhedron components (340, 1310, 1330) according to the action of a user with respect to the faces, where the information presented has a first hierarchical level and corresponds to a given menu;
- a storage module (550) that stores the first polyhedron component created by the control module;
- an input module (510) to which data about the action of a user with respect to the first polyhedron component is entered;
- a user interface module (520) that assigns the attributes to the at least one face, maps the information displayed on the at least one face according to the predetermined attributes,

processes the movement of the first polyhedron component according to the data upon the user's action input through the input module and changes an information display according to the movement of the first polyhedron component; and

- an output module (540) that displays a processing result of the user interface module;
- wherein the control module is configured to create a plurality of said second polyhedral components (340, 1310, 1330) assigned to a specific face (310) of said at least one face after action of said user on said specific face and where the user interface module (520) maps information, from among the stored information and corresponding to a plurality of submenus of said given menu, to information faces of the second polyhedral components (340, 1310, 1330) , said information corresponding to said plurality of submenus -menus that have a second hierarchical level different from the first level and where the output module (540) shows the result of the mapping;
- wherein when the plurality of second polyhedron components is created, the first polyhedron component changes to the plurality of second polyhedron components and the first polyhedron component is deleted.

EXAM ANALYSIS

In this case the distinctive features of the application were considered to be non-technical. The applicant suggested that the components of the second polyhedron in claim 1 of the main application may display submenus on more than one face and that these submenus have some form of relationship with the menu on the selected face of the first polyhedron component. However, whether the subcubes displayed submenus on one face or a plurality of faces and the relationship between these menus/submenus were considered to be non-technical differences in the GUI design where no technical effects could be identified.

The applicant argued that the distinctive features of claim 1 of the main application resolved such conflicting “technical requirements”, namely giving the user easy access to all kinds of details without over-cluttering the screen. However, reducing screen clutter and presenting the user with more details in a GUI are not technical requirements. Therefore, claim 1 was determined to lack an inventive step.

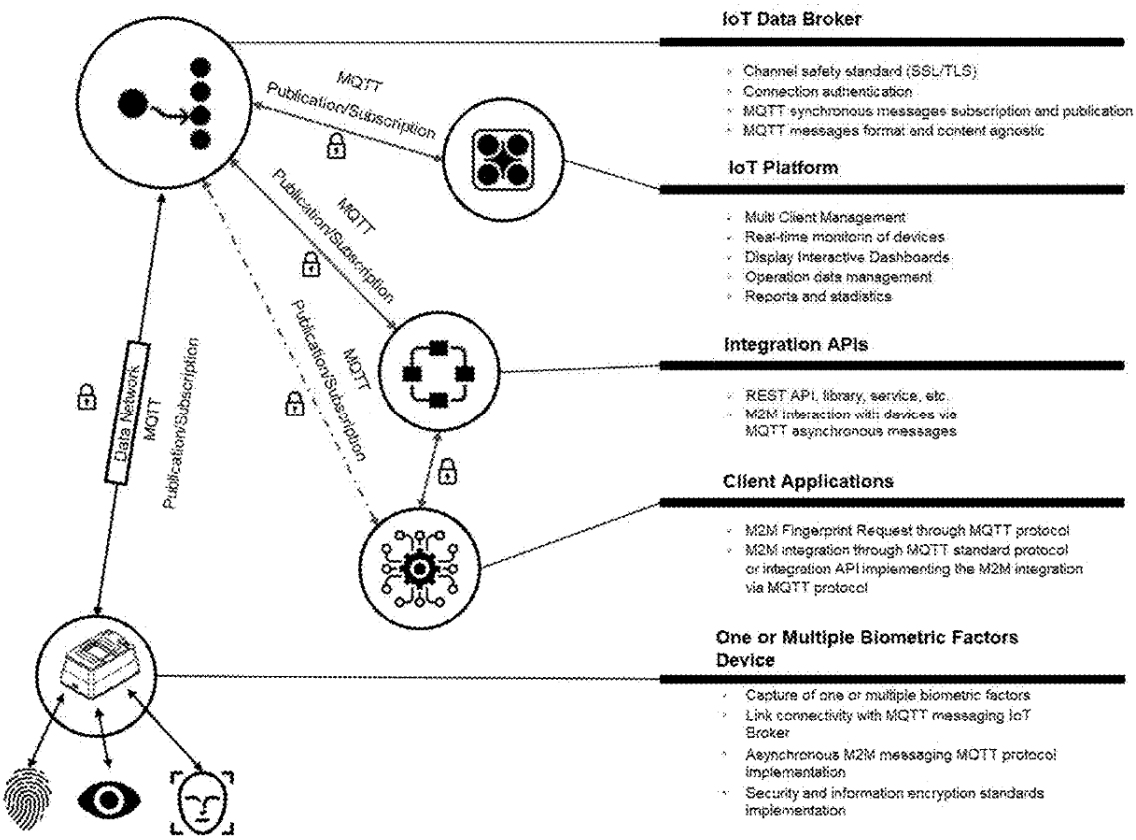
OBSERVATIONS: This case concerns a European patent application for a three-dimensional motion graphic user interface (MGUI). However, the distinguishing feature was considered to be non-technical.

- Reducing screen clutter and presenting the user with more details in a GUI are not technical requirements.
- Modifying the presentation of a GUI does not produce any technical effect.

Example No. 16
Example of eligibility for CII related to the Internet of Things (IoT)
Document / Case CO NC2018/0005389
Title - Multi-biometric iot bridge and biometric information capture procedure

BACKGROUND/SUMMARY

The invention seeks to provide a specification that makes use of a standard communication protocol that is easy to access and implement such as MQTT for the capture of any type of biometric or multibiometric information through the interaction between any device.



TEXT TO ANALYZE / CLAIM

1. A procedure for capturing biometric information, characterized in that it includes the steps of:

- implement an MQTT communication protocol in a device that manages one or multiple peripherals for capturing biometric information, enabling an M2M (Machine To Machine) communication model in an IoT (Internet of Things) architecture between the device and an integrating client, such as API, software application, web service, integrated device, for capturing one or multiple biometric factors;
- apply an MQTT messaging broker for publishing and subscribing asynchronous messages;
- establish the connection of the integrating client with the MQTT messaging broker (intermediary) using various access and security methods, implemented individually or jointly, such as and not limited to communication channel encryption, user/password and/or digital certificates
- subscribe the integrating client that requires the capture of biometric information to a calculated random MQTT messaging route and that implements filters to receive the response from the capture process;

- publish by the integrating client a message to an MQTT messaging route to request the capture process that implements the corresponding filters; including a dynamic identifier of the messaging route as part of the filters and configuration information for the capture process in the message
- receive the publication of the capture request message for one or multiple biometric factors in the capture device(s), in an MQTT messaging route that implements filters, composed of those implemented in the capture request by the integrating client;
- apply the received configuration to the peripherals and capture one or multiple biometric factors by the capture device(s);
- calculate, by the capture device(s), the random messaging route and publish MQTT messages with the captured information of one or multiple biometric factors;
- receive by the integrating client that requested the capture of biometric information, the response messages published by the device or devices in the calculated random MQTT messaging route, for response to capture biometric information to which it initially subscribed, where The information received corresponds to one or multiple biometric factors captured by one or multiple devices that respond to the operation; and
- once the information has been captured, disconnect the MQTT messaging broker by the integrating client.

EXAM ANALYSIS

In this case, claims 1 to 6 meet the requirements indicated in the previous considering, since they refer to a multibiometric information capture procedure based on MQTT, which differs from the closest state of the art, US 2016/294614, in that a random messaging route is calculated by the capture devices, the integrating client that requires the capture of biometric information is subscribed to the calculated random MQTT messaging route and received by the integrating client that requested the capture of biometric information, the response messages posted by the device(s) in the calculated random MQTT messaging route. Additionally, these differences are not suggested in the state of the art and, as a consequence, the effect of providing additional security is evident where only the parties involved who know said calculation will receive the message and taking into account that the parties are completely autonomous and do not know each other, messages are processed based on asynchronous events and the IoT

broker will distribute the MQTT message asynchronously to one or many clients that are subscribed to the specific messaging route. In addition to the above, the claimed material is susceptible to industrial application.

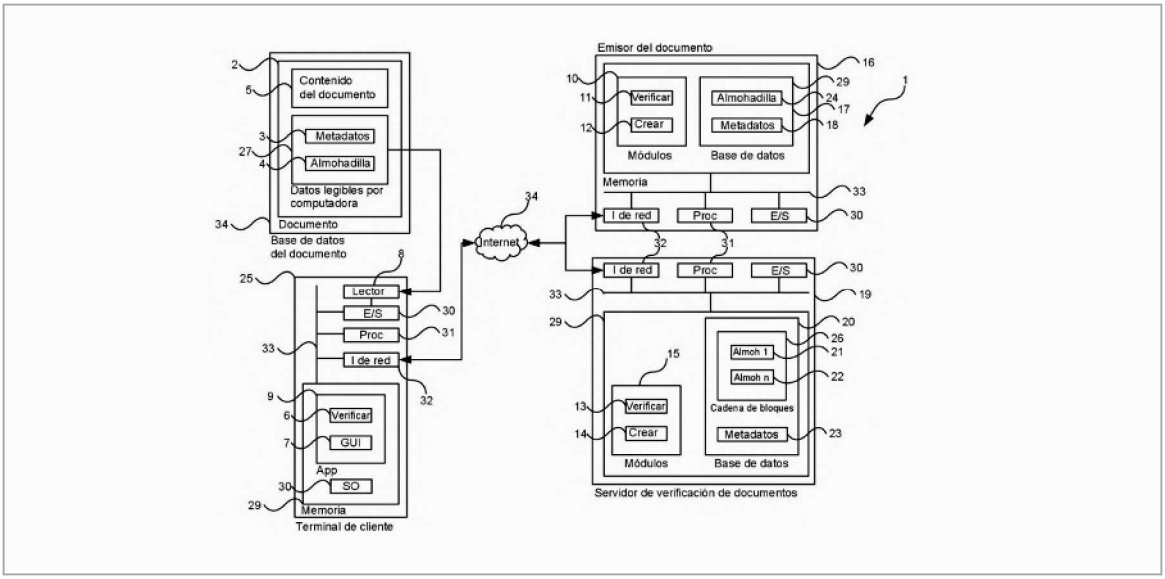
Consequently, claims 1 to 6 meet the requirements of novelty, inventive level and industrial application.

In this case, a distributed IoT architecture is presented, used for the management of peripherals that capture biometric information. In this architecture, an MQTT (Message Queuing Telemetry Transport) communication protocol is implemented to manage the capture and transmission of biometric information, where said protocol provides additional security, so that only the parties involved who know certain information defined by the protocol will receive the message. Therefore, in this case the invention falls on information communication management methods to increase security in an IoT architecture, therefore, it is valid to consider it for study.

Example No. 17
Example of eligibility of CII related to blockchain
Document / Case CO NC2018/0009397
Title - Method for verifying the authenticity of document information

BACKGROUND/SUMMARY
A system and method for verifying the authenticity of document information is provided for applications including verifying the authenticity of information of statements of achievement of course documentation issued by registered training organizations, verification of travel documents and other sensitive documents that require verification of authenticity such as documents issued by law firms, accounting firms, government institutions and the like. The method may comprise a verification record creation step comprising: receiving document content metadata from a document; generate a metadata pad by using the metadata of the document content; creating a blockchain transaction comprising the metadata pad; and generating machine-readable data that encodes the metadata pad; updating the document with computer-readable data and a document verification step

comprising: receiving the document; extract the metadata pad from the machine-readable data; and identify the metadata pad within blockchain transactions to verify the authenticity of document metadata.



TEXT TO ANALYZE / CLAIM

1. A method for verifying the authenticity of document information, the method comprising:

- a verification record creation stage that includes:
  - receive document content metadata from a document;
  - generate a metadata pad by using the document content metadata;
  - create a blockchain transaction that uses the metadata pad;
  - generate the machine-readable data that encodes the metadata pad; and
  - update the document with computer-readable data; and
- a document content updating stage that includes:
  - receive updated document content metadata for the document;
  - generate an additional metadata pad using the updated document content metadata;
  - create an additional blockchain transaction using the additional metadata pad; and
- a document verification stage comprising:
  - receive the document;
  - extract the metadata pad from the machine-readable data;
  - identify the blockchain transaction from the blockchain to verify the authenticity of the document metadata;

- and which also includes:
  - inspect the blockchain in reverse chronological order to identify additional blockchain transaction 2 to identify that the document content metadata is superseded by the updated document content metadata.

EXAM ANALYSIS

In this case, claims 1 to 16 meet the patentability requirements, since they refer to a method for verifying the authenticity of document information that differs from the closest state of the art, US20110161674, in the creation of a block chain comprising a metadata pad, as well as in carrying out a step of updating document contents and an inspection of the block chain in reverse chronological order. Additionally, these differences are not suggested in the state of the art and, as a consequence, the technical effect of verifying the authenticity of the metadata of the document is evident from the inspection or identification of a chain of blocks where the metadata of the content of the document must correspond to those that were previously updated. In addition to the above, the claimed material is susceptible to industrial application.

OBSERVATIONS: In this case, the request is eligible for study because the proposed solution involves the technology of creating a blockchain and this is used to verify the authenticity of document information with the objective of validating documents sensitive.

2.3 Examples of plant extracts

Example No. 1

Example of patentability of a plant extract (plant lipid) from a genetically modified plant and claim of a process to produce an extracted plant lipid

Document/Case PE 002445-2014/DIN / Resolution 003502-2019/DIN-INDECOPI

Title - Production of long-chain polyunsaturated fatty acids in plant cells

BACKGROUND/SUMMARY

The invention relates to long chain polyunsaturated fatty acids, especially docosahexaenoic acid in recombinant plant cells.

TEXT TO ANALYZE / CLAIM

1. An extracted plant lipid, comprising fatty acids in an esterified form, the fatty acids comprising oleic acid, palmitic acid, ω 6 fatty acids comprising linoleic acid (LA), ω 3 fatty acids comprising α -linolenic acid (ALA) and docosahexaenoic acid (DHA) and optionally one or more of stearidonic acid (SDA), eicosapentaenoic acid (EPA), docosapentaenoic acid (DPA) and eicosatetraenoic acid (ETA), where the level of DHA in the total fatty acid content of the extracted lipid is between 7% to 20 % and where the level of palmitic acid in the total fatty acid content of the extracted lipid is between 2% and 16% and where the level of myristic acid (C14:0) in the total fatty acid content of the extracted lipid is less than 1%.

9. A process to produce an extracted plant lipid comprising the following steps:

i) obtaining a part of a plant that comprises lipid, the lipid comprises fatty acids in an esterified form, the fatty acids comprise oleic acid, palmitic acid, ω 6 fatty acids comprising linoleic acid (LA) and γ-linolenic acid (GLA), ω3 fatty acids comprising α -linolenic acid (ALA), stearidonic acid (SDA), docosapentaenoic acid (DPA) and docosahexaenoic acid (DHA) and optionally one or more of eicosapentaenoic acid (EPA) and eicosatetraenoic acid (ETA), where the level of DHA in the total fatty acid content of the extractable lipid in the plant part is between 7% and 20% and where the level of palmitic acid in the total fatty acid content of the extractable lipid is between 2 % and 16% and where the level of myristic acid (C14:0) in the total fatty acid content of the extractable lipid is less than 1% and

ii) the extraction of lipid from the plant part, where the level of DHA in the total fatty acid content of the extractable lipid is between 7% and 20%, and where the level of palmitic acid in the total fatty acid content of the extractable lipid is between 2% and 16% and where the level of myristic acid (C14:0) in the total fatty acid content of the extractable lipid is less than 1%.

EXAM ANALYSIS

According to what is reviewed in the specification, the extracted plant lipid is obtained from a plant that comprises exogenous

polynucleotides that are covalently linked to a DNA molecule in such a way that they encode enzymes such as Δ12-desaturase, Δ3-desaturase, among others. Therefore, the plant lipid defined in claim 1 results from a genetically modified plant, in this sense, the plant lipid of claim 1 is patentable and is not objectionable by article 15 literal b) of Decision 486 given that a plant without genetic modification does not contain a level of DHA in the total fatty acid content of the extracted lipid between 7% to 20% and where the level of palmitic acid in the total fatty acid content of the extracted lipid is between 2% and 16% and where the level of myristic acid (C14:0) in the total fatty acid content of the extracted lipid is less than 1%.

Novelty: The extracted plant lipid described in claim 1 is not disclosed in the documents of the state of the art, since it comprises certain fatty acids with their respective percentages not disclosed in the background, likewise no natural plant produces DHA.

OBSERVATIONS: The descriptive report must disclose in detail what the genetic modification is and how it is carried out in the plant, so that it is clear that it is a genetically modified plant, otherwise the plant extract must be objected to by the article 15 literal b) of Decision 486, referring to that "all or part of living beings as they are in nature" is not considered an invention.

2.4 Examples of biotechnology

Example No. 1
Example of stem cells (non-patentable material)
Document / Case CO NC2017/0013359
Title - Method for culturing placenta-derived stem cells and compositions comprising them

BACKGROUND/SUMMARY
The present invention relates, in part, to the use of stem cells, such as placenta-derived stem cells (PDSC), to reduce the effects of aging, for example, restore regenerative motor and prolong the life of mature subjects. Provided herein, for example, are methods of maintaining or increasing the ratio between the number of stem cells and the number of differentiated cells in a tissue

of a subject over time, comprising administering to the subject an effective amount of a stem cell population (e.g., PDSC), where the ratio is maintained or increases over time compared to the ratio between the number of stem cells and the number of differentiated cells in a tissue from a control subject to over time. Additionally, methods are provided for maintaining or increasing the number of stem cells in a tissue of a subject over time, comprising administering to the subject an effective amount of a stem cell population (e.g., PDSC), where the number of stem cells in the subject's tissue is maintained or increased over time compared to the number of stem cells in the same tissue of a control subject.

Also provided herein are methods of altering the phenotype or proteome of an aging stem cell resident in a tissue of a subject, comprising administering to the subject an effective amount of a stem cell population (e.g., PDSC), in where the amount is effective to alter the environmental niche of the aged stem cell such that the phenotype or proteome of the stem cell is altered compared to the phenotype of the tissue-resident stem cell of a control subject.

TEXT TO ANALYZE / CLAIM

13. An isolated population of PDSC that is produced according to the method of Claims 1 to 12.

EXAM ANALYSIS

Although the isolation of living matter or its components is the result of intellectual and laboratory work, comparable to any invention of a product or procedure, biological material, cells or their components that already exist in nature, even when isolated, they are not considered inventions. Therefore, the series of steps referred to by the applicant corresponds to the isolation method and the artificial medium in which the cells are kept is to allow their viability, however, these procedures do not affect their biological properties and do not allow them to be distinguished from cells as they are found in nature.

Observations

The object of claim 13 is not considered an invention in accordance with Article 15 Decision 486 literal (b), since it

claims an isolated population of placenta-derived stem cells (PDSC), which are considered biological material isolated from nature.

2.5 Examples for the Kit of Parts

Example No. 1
Example of an Invention of a combination of pharmaceutical compounds claimed in the form of a kit of parts with proven synergistic effect
Document/Case WO2009064738

Title - Treatment of breast cancer with a PARP inhibitor alone or in combination with antitumor agents

The technical problem disclosed in the application consists of reducing the side effects caused by antitumor therapy in patients suffering from breast cancer when gemcitabine and carboplatin therapy is applied.
The solution to the technical problem consists of applying the compound 4-iodo-3-nitrobenzamide in combination with gemcitabine and carboplatin in a reduced dosage regimen that has the advantage of a better disease progression-free survival (PFS) profile in patients. compared to gemcitabine/carboplatin therapy.

In the present case, the results of the tests carried out on a group of patients are presented in accordance with the pharmacotherapeutic monitoring and the evaluation of the progression of the disease based on the occurrence of adverse effects as a consequence of applying gemcitabine/carboplatin therapy versus to 4-iodo-3-nitrobenzamide/gemcitabine/carboplatin therapy.

Claims:
Claim 1: A kit of parts comprising a combination of vials wherein the first vial comprises 4-iodo-3-nitrobenzamide or a pharmaceutically acceptable salt thereof and the second vial comprises gemcitabine and a third vial comprises carboplatin.
Claim 2: The kit of claim 1, wherein the dosed amount of 4-iodo-3-nitrobenzamide or a pharmaceutically acceptable salt thereof, is 3mg to 20mg.

Claim 3: The kit of claim 1, wherein the dosed amount of gemcitabine is 18mg to 16,050mg.
Claim 4: The kit of claim 1, wherein the dosed amount of carboplatin is 1,800 mg to 1,284 mg.

EVALUATION OF THE STATE OF THE TECHNIQUE (ET): Based on the search for the nearest ET, document XP002633901 was found, published in 2004, in which the advantages of applying the gemcitabine/carboplatin combination as a second-line treatment are evaluated. to fight breast cancer. However, the document does not suggest or disclose the possibility of including a third anticancer agent of the benzamide type or the reduction in the dose to achieve the antitumor effect and a higher percentage of survival free of disease progression, so in the absence of close ET that suggests or motivates the person versed in the matter to combine the three antitumor agents and given the evidence of unexpected technical effect, it was concluded that the claimed material meets the requirements of novelty, inventive level and industrial application to the extent that The combination will be marketed in the form of a kit of parts that includes three vials or functional units.

Example No. 2
Example of an Invention of a combination of agrochemical compounds, claimed in the form of a kit of parts with a synergistic effect
Document/Case: CO 14260412

Title - COMPOSITION COMPRISING BACILLUS SUBTILIS AQ713 AND A FUNGICIDE SELECTED FROM DIMETOMORF, IPROVALICARB AND MANDIPROPAMID

The technical problem raised in the application consists of the need for new phytotherapeutic agents that have activity against insects, mites, nematodes and/or phytopathogenic agents that require low application rates and have broad-spectrum activity. To solve this technical problem, the application under study provides compositions that comprise a biological control agent and a synthetic pesticide in synergistically effective amounts. In the description of the application, the results of a test carried out are presented, according to which the observed

activity of the combination of the active components of the invention is greater than the previously calculated activity; which shows that there is a synergistic effect.

Claims:

1. A composition comprising a biological control agent selected from the group consisting of Bacillus subtilis AQ713 (NRRL accession no. B-21661) and Bacillus subtilis AQ30002 (NRRL accession no. B-50421) and a fungicide (I) selected from the group consisting of dimethomorph, iprovalicarb and mandipropamid in a synergistically effective amount, wherein the ratio of biological control agent and fungicide is between 1:0.001 and 1:0.25.

2. The composition according to claim 1, further comprising an auxiliary selected from the group consisting of diluents, solvents, spontaneity promoters, vehicles, emulsifiers, dispersants, frost protectants, thickeners and adjuvants.

3. Kit of parts comprising a biological control agent selected from the group consisting of Bacillus subtilis AQ713 (NRRL accession no. B-21661) and Bacillus subtilis AQ30002 (NRRL accession no. B-50421), and a fungicide (I) selected from the group consisting of dimethomorph, iprovalicarb and mandipropamid in a synergistically effective amount, in a spatially separated arrangement, wherein the biological control agent and the fungicide are present in said kit of parts in a ratio of between 1:0.001 and 1:0.25.

EVALUATION OF THE STATE OF THE ART (ET): The closest ET, US 6060051, published in 2000, discloses synergistic compositions comprising the biological control strain Bacillus subtilis AQ713 (NRRL accession no. B-21661) and a fungicide chemical. In addition, it is taught that the biological control strain has a broad spectrum of activity against plant pests such as insects, fungi and bacteria.

However, this document does not disclose or suggest that the combination of the Bacillus subtilis strain together with a fungicide selected from the group consisting of dimethomorph, iprovalicarb and mandipropamid presents an observed activity that

is higher than the previously calculated activity; which shows that there is an unexpected synergistic effect and, therefore, the combination has an inventive level.

In this order of ideas, the kit of parts of claim 3 containing the Bacillus subtilis strain together with a fungicide (selected from dimethomorph, iprovalicarb and mandipropamid) is considered to have an inventive step. Additionally, it is susceptible to industrial application.

Example No. 3
Example of a kit of parts that corresponds to juxtaposition or simple aggregation of compounds with recognized pharmacological activity (not patentable).
Document/Case EP1793830

Title - Therapeutic combinations comprising a poly (ADP-ribose) polymerase inhibitor

The technical problem disclosed in the application consists of improving the effectiveness of antitumor therapy by designing a pharmacotherapeutic alternative. To solve this technical problem, the application presents a combination of antitumor agents, the first being a chemosensitizer-type inhibitor of the poly (ADP-ribose) polymerase enzyme derived from azepine that is capable of increasing the pharmacological efficacy of other cytotoxic agents. Technical tests are aimed at demonstrating the chemosensitizing effect of the azepine derivative when the patient is subjected to radiotherapy.

Claims:
Claim 12. Kit for treating cancer in a mammal, comprising:
a) An amount of a compound of formula 1 corresponding to the compound 8-fluoro-2-{4-[(methylamino)methyl] phenyl}-1, 3, 4,5-tetrahydro-6H-azepino [5,4, 3-cd]indol-6-one and a pharmaceutically acceptable carrier in a first preparation and unit dosage form.
b) An amount of at least one anti-cancer agent and a pharmaceutically acceptable carrier in at least a second unit preparation and dosage form.
c) Container to contain the first and at least the second dosage form.

The claimed kit of parts does not meet the condition of being new and inventive, since in the state of the art there are documents where combinations or compositions of the compound of formula 1 with other anti-cancer agents of diverse nature and origin are disclosed, specifically in the state of the art document WO0042040 and on the other hand, there is no technical evidence of a true combination of compounds or functional units because the technical tests are aimed at demonstrating the chemosensitizing effect caused by azepine when administered to a patient who is going to undergo radiotherapy.

Example No. 4
Example of a kit of parts that corresponds to a therapeutic treatment method (not patentable)
Document/Case EP2073814
Title - New method of treating male subfertility

The technical problem is to reduce the incidence of male subfertility as a consequence of failures in prostate function. To solve this problem, the researchers found that high levels of interleukin 8 (IL8) in seminal plasma are correlated with the seminal parameters of sub-fertile individuals, so they designed a treatment method and kit of parts based on the diagnosis of IL. 8 and the administration of vitamin D.
Clinical tests are aimed at determining the effect of vitamin D on semen parameters such as sperm morphology, motility, leukocyte levels in semen and the conception rate of patients undergoing treatment.

Claims:
Claim 1: A method of treating male subfertility that consists of applying vitamin D.

Claim 2: A method of treatment consisting of the form of administration of vitamin D, with the instructions and the amount of the dosage form to be administered at a given time and the package, receiver or container.

Claim 3: The method of claim 2, characterized in that it further comprises identifying the patient in need of treatment for male subfertility.

Claim 4: The method according to claims 2 or 3, characterized in that it also comprises the step of obtaining the vitamin D compound.

Claim 5: The method according to claims 2 to 4, wherein the patient is a mammal and where the patient is a human.

Claim 6: The kit of parts comprising: i) determining the levels of interleukin 8 (IL8) in seminal plasma, ii) administering vitamin D and iii) administration instructions.

The object disclosed by the application relates to a treatment method and one of the claims is directed to a kit of parts containing the compounds that are administered to a patient plus a diagnostic test of IL-8 levels. In the present case, it is understood that the kit of parts is a diagnostic and treatment method, which is why it is not patentable according to Article 20, literal d) D 486 and consequently is not eligible for patentability examination.

3. EXAMPLES NOVERITY

Example No. 1
Example of novelty evaluation, comparison of claim vs. state of the art (chemistry)
Document / Case PE 000572-2007/OIN
Title - Method for recovering copper from a copper sulfide ore

Claim 1
A method of recovering copper from a copper sulfide ore, in a reactor, which includes the steps of leaching the ore into an acid chloride slurry or mixed chloride/sulfate slurry, in the presence of dissolved oxygen, maintaining the potential of ore surface below 600mV (vs. SHE), to cause dissolution of copper sulfide from the pulp.

RELEVANT STATE OF THE ART:
Document D1: US 4 571 387 / BRUYNESTEYN, Albert and others / Publication date: 02/18/1986. “Biological-acid leaching process.”

This document describes a process of leaching copper from an ore comprising copper sulfide, in particular ore copper comprising chalcopyrite. The process described in this document includes the step of leaching the chalcopyrite, maintaining the temperature between 10 °C and 40 °C and the oxidation potential of the medium is maintained between 540 mV and 660 mV (vs SHE). This process is carried out in the presence of dissolved oxygen. One of the examples in the document indicates that this step is carried out in a tank with plastic baffles in an acidic leaching medium that contains sulfate and chloride.

Claim 1	**Document D1**
Method for recovering copper from a copper sulfide ore, in a reactor, including the steps of	Copper leaching process from an ore that comprises copper sulfide, which comprises
Leaching the mineral in an acid chloride pulp or mixed chloride/sulfate pulp, in the presence of dissolved oxygen	Leaching the chalcopyrite in the presence of dissolved oxygen, in an acidic aqueous leaching medium containing sulfate and chloride
Maintains the mineral surface potential below 600mV (vs. SHE), to cause dissolution of copper sulfate.	Maintains the oxidation potential of the medium between 540mV and 660mV (vs. SHE)

ANALYSIS: the content of claim 1 is described in document D1, since all the essential characteristics of the claim are present in document D1, as seen in the comparative table.

CONCLUSION: the content of claim 1 is anticipated by the content of D1, therefore, claim 1 is NOT new.

Example No. 2
Example of novelty evaluation, comparison of claim vs. state of the art (chemistry)
Document / Case PE 000614-2006/OIN
Title - Process for preparing hydrocyanic acid salts

Claim 1
"Process for preparing a solution of cyanide salts, characterized in that it comprises the steps of: a) preparing a crude gas that

comprises hydrocyanic acid by dehydration of formamide until a conversion of the formamide > 97%; b) brushing the raw gas obtained in step a with acid); c) reacting the raw gas obtained in step a), or if appropriate in step b) with an aqueous solution of a hydroxide M(OH)x, where M is selected from the group consisting of alkali metals and alkaline earth metals and x depends on the oxidation state of M and is 1 or 2."

RELEVANT STATE OF THE ART:
Document D1: US 3 619 132 / MANN BRILON AND OTHERS / Publication date: 11/09/1971 "Process for the production of alkaline cyanides".

This document mentions that alkali cyanides are known to be produced by the neutralization of hydrocyanic acid (HCN) with alkali hydroxide, for which the hydrocyanic acid is added in the form of gas and liquid and the alkali hydroxide is added in aqueous solution.

CLAIM 1	**DOCUMENT D**
A process to prepare a solution of cyanide salts	A process to produce alkaline cyanides
a) Prepare a raw gas comprising HCN by dehydration of formamide to a formamide conversion > 97%.	a) Produce HCN from formamide. The conversion % is not mentioned.
b) Brush the gas obtained with acid.	b) Purify the HCN with a sulfuric or phosphoric acid wash.

ANALYSIS: From the comparison carried out it is observed that the difference between claim 1 and Document D1 is that the conversion of formamide is > 97% and that in the hydroxide M(OH)x that reacts with HCN, M is an alkali metal or alkaline earth. In document D1 the % conversion of formamide is not mentioned and it is only mentioned that the hydroxide that reacts with HCN is alkaline.

CONCLUSION: Claim 1 is new.

Example No. 3

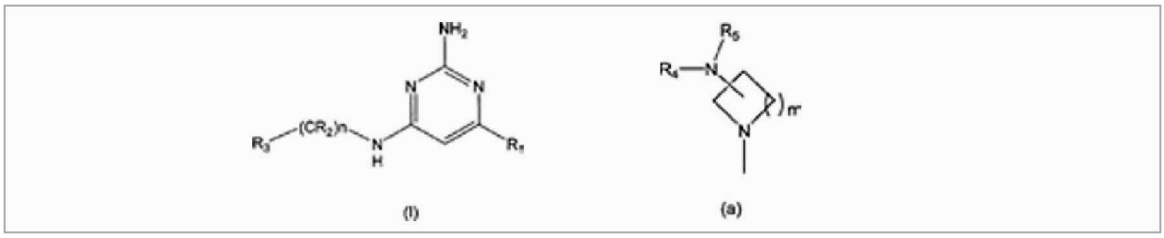
Example of novelty evaluation, comparison of claim vs. state of the art (chemistry)

Document / Case PE 001110-2006/OIN

Title - 2-Aminopyrimidine derivatives as modulators of histamine H-4 receptor activity

Claim 1

A compound of formula (I), where R1 represents a group of formula (a), where:

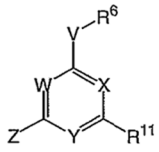


R2 represents H or C1-4 alkyl; R3 represents phenyl optionally fused to an aromatic, saturated or partially unsaturated, 5- or 6-membered ring, which may be carbocyclic or heterocyclic with 1 or 2 heteroatoms selected from N, O and S, where R3 may be optionally substituted by one or more R8 substituents; R4 represents H or C1-4 alkyl; R5 represents H or C1-4 alkyl; each R8 independently represents C1-4 alkyl, halogen, -OH, C1-4 alkoxy, C1-4 alkylthio, C1-4 haloalkyl, C1-4 haloalkoxy -COR9, -CO2R9, -CONR9R9, -N R9R9, -NHCOR10, - CN, C2-4alkynyl, or –CH2OH and additionally one of the R8 substituents may have phenyl optionally substituted by one or more groups selected from C1-4 alkyl, halogen, -OH, C1-4 alkoxy, C1-4 alkylthio, C1 -4 haloalkyl, C1-4 haloalkoxy, -COR9, -CO2R9, -CONR9R9, -N R9R9, -NHCOR10, -CN, C2-4alkynyl, or –CH2OH; R9 represents H or C1-4 alkyl; R10 represents C1-4 alkyl; m represents 1 or 2; n represents 0 or 1; or a salt thereof.

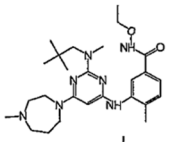
RELEVANT STATE OF THE ART:

Document D1: WO 01/47897 /PHARMACOPEIA, INC. AND BRISTOL-MYERS SQUIBB COMPANY / Publication date: 07/05/2001 - ”Cytokine inhibitors, especially TNF-ALFA”. This document describes heterocyclic compounds that block cytokine production by inhibiting p38 kinase, useful for treating rheumatoid arthritis, psoriaris, asthma, Crohn's disease, etc. A compound of formula A is described:

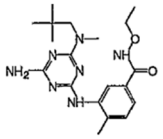
Some specific compounds are:



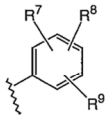
Compound 362



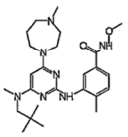
W, X and Y are -N= or -CH= 358



R5 is H or alkyl



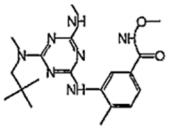
R6 is 350



R7 is H, etc

R8 is H, etc

R9 is Nitro, carboxy, etc 336



R11 is chosen from NR12R13

R12 is H, etc

R13 is -(CH2)mR14, m=0 and R14 is H, etc

Z is chosen from -NR1R2, R1 and R2 take together may form a hetrocycle optionaly substituted

COMPARISON OF CLAIM VS STATE OF THE ART: From the comparison of the claim with document D1, it is observed that although the compound of formula (I) falls within the scope of compound (A) of document D1, for the case in which (A), W and Y are N; X is C; Z is NH2; R11 is azetidine, pyrrolidine, piperidine piperazine, 1,4-diazepane or octahydro-1H-pyrrole[3,4,-b]pyridine; V is NR5; R5 is H and R6 is substituted phenyl, the content of the claim is new with respect to document D1, since the claimed compound corresponds to a selection invention. Let us remember that when there is a specific indication in a claim and this falls within the general description disclosed in the state of the art, the content of the claim is considered to be novel.

CONCLUSION: The compound defined in the claim is new.

Example No. 4
Example of evaluation of novelty, comparison of claims vs. state of the art (pharmaceutical)
Document / Case PE 000062-2007/OIN

Title - A pharmaceutical formulation of taxane, a solid taxane composition, a procedure for the preparation of said solid taxane composition, a solubilizing composition of said solid taxane composition and a set of elements (kit) for the injectable formulation of taxane

Claim 1

Taxane pharmaceutical formulation comprising:
a) a solid lyophilized taxane composition, free of surfactants and obtainable by lyophilization of a solution comprising an organic lyophilization solvent selected from the group comprised of dioxane, acetic acid, dimethyl sulfoxide or a mixture of these and said taxane; and

b) a solubilizing composition of said solid lyophilized taxane composition comprising at least one polymeric surfactant, selected from the group comprised of macrogol hydroxystearate, poloxamer, polyvinylpyrrolidone or mixtures thereof.

RELEVANT STATE OF THE ART:

Document D1: US 20003009967 / ANDREW. X. CHEN / Publication date: 05/29/2003.
"Lyophilized injectable formulations containing paclitaxel or other taxoid drugs."

This document describes a lyophilized formulation comprising Paclitaxel or another water-insoluble taxoid, in addition to oil, surfactant, alcohol and an anti-adhesion agent, such as sucrose.

COMPARISON CLAIMS VS STATE OF THE ART

Claim 1	**Document D1**
Pharmaceutical formulation of taxane.	Lyophilized formulation comprising Paclitaxel or another taxoid.
os compositions, in one of which the taxane is free of surfactants.	Paclitaxel lyophilisate comprises a surfactant.

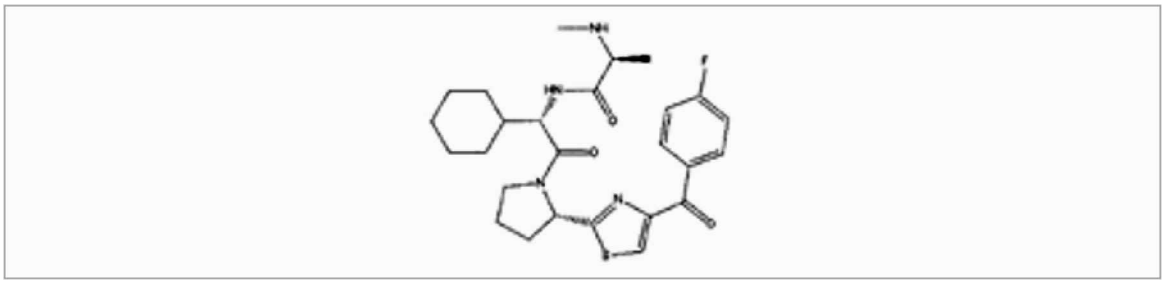
ANALYSIS: From the comparison carried out it is observed that in the claimed invention the taxane is free of surfactants and in document D1 it is not, since paclitaxel comprises a surfactant, which corresponds to a surfactant.

CONCLUSION: The formulation described in claim 1 is new.

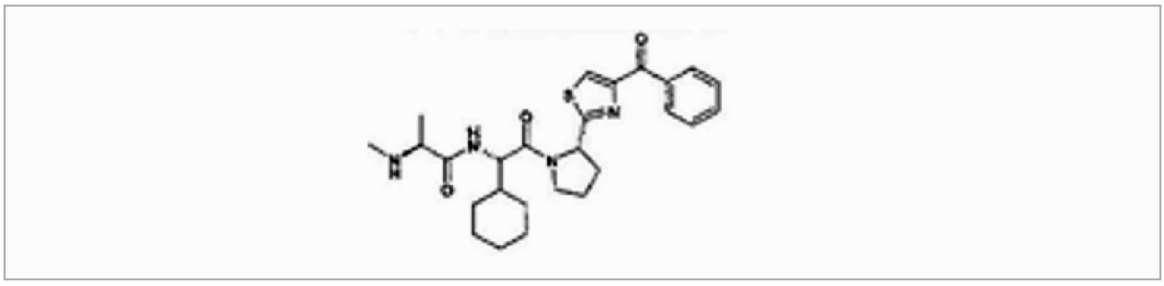
Example No. 5
Example of novelty evaluation, comparison of claim vs. state of the art (chemistry)
Document / Case PE 000978-2007/OIN

Title - Substituted 2-oxo-ethyl-amino-propionamide-pyrrolidin-2-yl derivatives as inhibitors of smac protein binding to apoptosis protein inhibitor

ANALYZED CLAIM:
A compound which is (S)-N-((S)-1-Cyclohexyl-2-{(S)-2-[4-(4-fluoro-benzoyl)-thiazol-2-yl]-pyrrolidin-1 -yl}-2-oxoethyl)-2-methyl-amino-propionamide, or a pharmaceutically acceptable salt thereof.



RELEVANT STATE OF THE ART:
Document D1: WO 2005/097791 A1 / NOVARTIS AG / Publication date: 10/20/2005.
– "IAP inhibitors". This document describes compound 130, of formula:



ANALYSIS: From the comparison made between the compound of claim 1 and document D1, it is observed that the compound described in claim 1 differs from compound 130 described in document D1, because it has a 4-fluorophenyl radical instead of phenyl.

CONCLUSION: Claim 1 is new.

Example No. 6
Example of stem cells (lack of novelty)
Document / Case CO NC2017/0013359

Title - Method for culturing placenta-derived stem cells and compositions comprising them

BACKGROUND/SUMMARY

The present invention relates, in part, to the use of stem cells, such as placenta-derived stem cells (PDSC), to reduce the effects of aging, for example, restore regenerative motor and prolong the life of mature subjects. Provided herein, for example, are methods of maintaining or increasing the ratio between the number of stem cells and the number of differentiated cells in a tissue of a subject over time, comprising administering to the subject an effective amount of a stem cell population (e.g., PDSC), where the ratio is maintained or increases over time compared to the ratio between the number of stem cells and the number of differentiated cells in a tissue from a control subject to over time. Additionally, methods are provided for maintaining or increasing the number of stem cells in a tissue of a subject over time, comprising administering to the subject an effective amount of a stem cell population (e.g., PDSC), where the number of stem cells in the subject's tissue is maintained or increased over time compared to the number of stem cells in the same tissue of a control subject. Also provided herein are methods of altering the phenotype or proteome of an aging stem cell resident in a tissue of a subject, comprising administering to the subject an effective amount of a stem cell population (e.g., PDSC), in where the amount is effective to alter the environmental niche of the aged stem cell such that the phenotype or proteome of the stem cell is altered compared to the phenotype of the tissue-resident stem cell of a control subject.

TEXT TO ANALYZE / CLAIM

1. An in vitro method for culturing or expanding a stem cell population in the presence of young stem cells, young progenitor cells or young precursor cells, comprising culturing or expanding the stem cell population in the presence of additional factors isolated from young stem cells, young progenitor cells or young precursor cells.

EXAM ANALYSIS

The applicant says that "the documents cited by the Firm do not contemplate cultivating the stem cell population in the presence of cytokines, hormones, promoters, repressors, proteins, nucleic acids, viruses, immunogens, angiogenic factors, growth factors, antiapoptotic factors and "antioxidants isolated from young stem cells, young progenitor cells or young precursor cells as claimed in the present invention."

Essential Features	**D1 US20070292910**
An in vitro method for culturing or expanding a stem cell population in the presence of stem cells, progenitor cells or precursor cells, comprising	A method of culturing stem cells where placenta-derived stem cells are grown in conjunction with stem cells not derived from umbilical cord blood (Page 19, Para. [0158])
Cultivate or expand the stem cell population in the presence of additional factors isolated from stem cells, progenitor cells or precursor cells.	When growing together the medium contains biomolecules derived from placental stem cells (Pages 8 and 9, Para. [0067])

Essential Features	**D2 US8057788**
An in vitro method for culturing or expanding a stem cell population in the presence of stem cells, progenitor cells or precursor cells, comprising	A method of culturing stem cells where placenta-derived stem cells are cultured together with non-placental derived stem cells (Col. 48, Line 49 to 56)
Cultivate or expand the stem cell population in the presence of additional factors isolated from stem cells, progenitor cells or precursor cells.	Culture with medium containing factors derived from placental stem cells (Col. 48, Line 49 to 56)

Essential Features	**D3 US2008213228**
An in vitro method for culturing or expanding a stem cell population in the presence of stem cells, progenitor cells or precursor cells, comprising	A method of culturing stem cells where placenta-derived stem cells are cultured together with non-placental derived stem cells (Page 30, Para. [0265])
Cultivate or expand the stem cell population in the presence of additional factors isolated from stem cells, progenitor cells or precursor cells.	Culture with medium containing factors derived from placental stem cells (Page 30, Para. [0265])

Essential Features	**D4 US2010260727**
An in vitro method for culturing or expanding a stem cell population in the presence of stem cells, progenitor cells or precursor cells, comprising	A method for culturing stem cells that uses placenta as the source of the cells (Page 8, Para. [0086]) Method of culturing mesenchymal stem cells with cardiac precursor cells (CPC) (Page 7, Para. [0074])
Cultivate or expand the stem cell population in the presence of additional factors isolated from stem cells, progenitor cells or precursor cells.	Culture with medium containing factors derived from mesenchymal stem cells (Page 7, Para. [0074]; Page 8, Para. [0089])

CONCLUSIONS: Therefore, the documents affect the novelty of the claimed invention.

Example No. 7
Example of novelty evaluation, comparison of claim vs state of the art (mechanical)
Document / Case PE 001137-2007/OIN
Title - Portable cylindrical dosing container

Claim 1
1. Dispenser to extract spherical, cubic, cylindrical or any

other shape products located inside the dispenser CHARACTERIZED because it comprises:

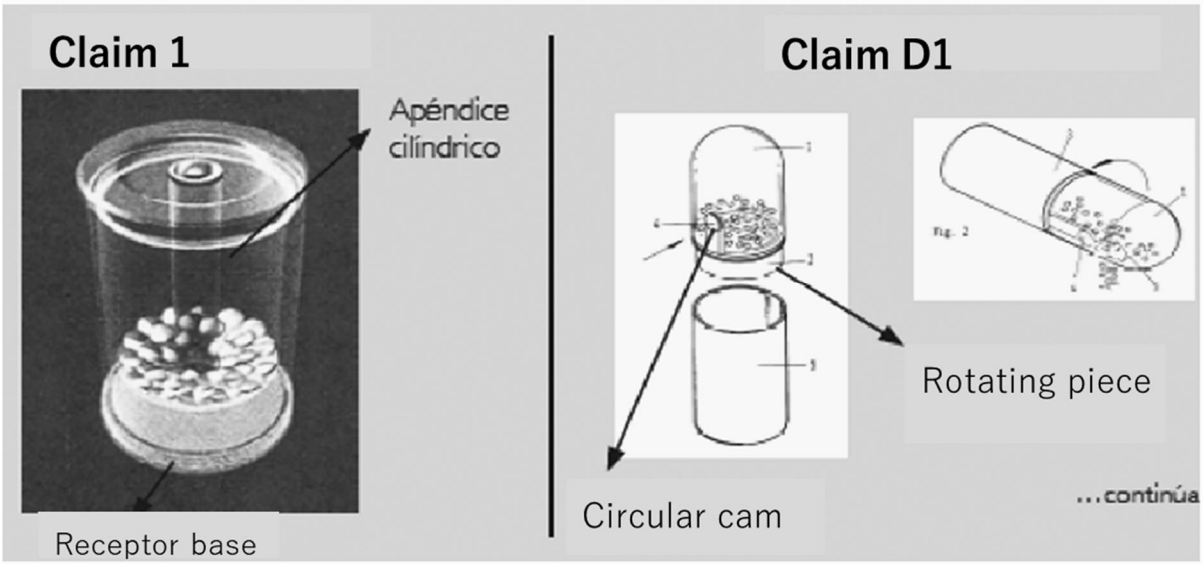
- a cylindrical external container, open at the top and closed at the bottom by a base-receptacle, such that from the central part of said base a cylindrical appendixes that extends in the direction of the longitudinal axis of the external container and whose height is determined by the height of the mouth of said container; said appendage has a concave cavity or spike on its upper part to hold a product;
- an internal cylindrical container that is housed inside the external cylindrical container and is intended to contain the products to be dosed; It is open and threaded on its upper part, while its base is formed by an inverted truncated cone that forms a hole, so that the coupling between the internal and external container is made through the cylindrical appendix and said hole;
- a cover to engage with the upper edge of the cylindrical internal container, for which it has a threaded surface inside; having a central hole to house the spike when the dispenser is in the position of use; and,
- a concave relief to prevent the dispensed products from slipping out of the dispenser.

RELEVANT STATE OF THE ART:

Document D1: ES 1 046 633 / MARTÍNEZ LÓPEZ, Ma. Salud / Publication date: 01/01/2001 “Candy dispenser”.

It refers to a candy dispenser with a container (1), closed by one of its bases by a rotating piece (2) that contains inside a bulk product that is delivered through a side hole (5). The rotating piece (2) has an internal cam (4) with a circular projection that is inserted into said hole, closing it, but when rotated in the appropriate direction, it moves out of it, for the delivery of the product.

Comparison of Claim vs State of the Art:



COMPARISON R1 VS D1: From the comparison of both documents, it is evident that although they refer to dispensers, what is requested in R1 differs in that the external cylindrical container is closed by a base-receptacle, from which a cylindrical appendage emerges; while in D1 the container is closed by a rotating piece, which has a circular cam with a circular projection.

CONCLUSION: Claim R1 is new.

Example No. 8
Example of novelty evaluation, comparison of claim vs state of the art (mechanical)
Document/Case PE 001156-2006/OIN

Title - Method and assembly for dispensing a product from a container that retains its shape

Claim 10
An assembly (1) for dispensing at least one product (8) comprising a shape-retaining container (2) for receiving at least one product (8), said container (2) having at least one outflow opening (6); means (9) for introducing into the container (2) an agent (15) for displacing at least one product (8) to be dispensed, CHARACTERIZED IN THAT the means (9) for introducing the displacing agent are arranged for introducing the displacing

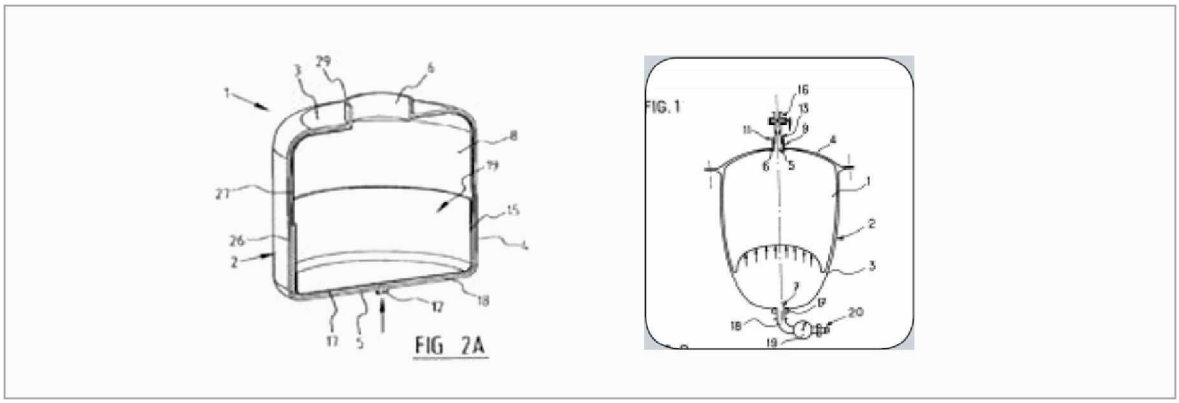
agent (15) into the container (2) so as to exert on at least one product (8) substantially only a force directed towards the outflow opening (6).

RELEVANT STATE OF THE ART:

Document D1: FR 2593799 / CHEVAL BENOIT et al. / Publication date: 08/07/1987 / "Container for dispensing a product using pressure."

It refers to a device for dispensing a product using pressure that comprises a rigid container (2) that includes a flexible envelope in the form of a bag containing the product to be dispensed. The container (2) comprises, in its lower part, a dispensing hole (5) that is common for both the container and the flexible sachet and is equipped with a neck (9) and a lid (16); while the lower part of the container (2) has an inlet hole (7) connected to the distribution network of the pressurized fluid.

COMPARISON CLAIM 10 VS STATE OF THE ART



ANALYSIS: From the comparison of claim 10 with document D1, it is observed that the device described in the latter anticipates the content of the claim, since both devices present the following:

- a device for dispensing at least one product;
- a container that maintains its shape to receive the product;
- a flow outlet opening;
- means for introducing into the container a means for moving the product to be dispensed, from where the means for introducing the displacement means are placed inside the container to exert a direct force on the product, towards the flow opening.

CONCLUSION: The content of claim 10 is NOT new.

Example No. 9
Example of evaluation of novelty, comparison of claim vs state of the art (electrical)
Document / Case PE 000114-2008/OIN
Title - Electrical energy-saving equipment in lighting systems that use gas discharge lamps

Claim 1
Electrical energy-saving equipment for gaseous discharge lamp lighting systems... CHARACTERIZED BECAUSE it comprises: at least 3 force contactors for each independent load control required, where each force contactor is connected to a voltage output of the autotransformer; at least one force contactor for each independent load control required, where each force contactor is connected to its respective lighting load; and, a three-position switch connected to the network input that determines the operating mode of the equipment (on, off, "by pass").

RELEVANT STATE OF THE ART:
Document D1: WO 2007/123387 / QUINTERO DE LA GARZA, Raúl / Publication date: 11/01/2007 "Method and apparatus to control power and save energy in high intensity gas discharge lamps used in lighting systems". This document relates to a method and apparatus for controlling power in lighting systems using gas discharge lamps. It allows you to save energy by operating the luminaires at reduced power at certain times, by supplying a lower voltage supply to the luminaire input. It uses a specially constructed autotransformer with voltage taps in its main winding. It presents a controller device that measures the power of the luminaire and operates a plurality of electronic or electro-mechanical switches that connect or disconnect the impedances until the desired power is given in the luminaire .

Claim 1	**Document D1**
It has an autotransformer as a voltage reduction device.	It has an autotransformer as a voltage reduction device.
As a voltage selection device, it has an intelligent relay + contactors (at least 3 force contactors connected to the voltage output of the autotransformer and at least 1 force contactor connected to the lighting load).	As a voltage selection device, it presents a control device that, among other elements, includes electromechanical relays + contactors.
It has a 3-position switch connected to the network input.	

ANALYSIS: As can be seen from the comparative table, the content of claim 1 differs from document D1, in that it presents:
At least 3 force contactors connected to the voltage output of the autotransformer;
At least one contactor connected to its respective power lighting load; and,
A three-position switch that determines the operating mode of the equipment.

CONCLUSION: Claim 1 is new.

Example No. 10
Example of evaluation of novelty, comparison of claims vs. state of the art (electronics)
Document / Case PE 000728-2006/OIN
Title - Game Machine

Claim 1
A gaming machine comprising:
- – a control means for carrying out the game process obtained when the player wins the game and adding the obtained game means to a game means held by the player, the obtained game means being an amount of the obtained means to be paid to the player, according to the details of the win;
- a display medium to display the transfer of the obtained game medium to the own game medium; and,

- a display control means for controlling the display to perform the transfer display of the gaming medium at a first transfer speed or at a second transfer speed that is slower than the first transfer speed, according to the medium of game obtained

RELEVANT STATE OF THE ART:

Document D1: US 6,729,955 /NICHOLAS LUKE BENNET and other / Publication date: 04/05/2004. "Gaming Machine with Payment Counter and Animated Payment Display"

This document describes a gaming machine having a game controller arranged to control the images displayed on the screen according to random events occurring during a game. If a win is obtained as a result of a predefined event, the machine will award a prize, which will be displayed on a counter indicating the payment of the prize. In addition to incrementing the counter, the controller generates a sequence of outputs related to the payment of prizes as a result of the win event. Outputs may change during the payment of a prize with a rate of change that depends on, and varies with, the size of the prize.

COMPARISON CLAIM vs STATE OF THE ART:

Claim 1	**Document D1**
Game control medium: provides the game; determines a means of play when the player wins the game; Updates the player's balance.	Game control medium: implements the game through a program; determines a payment mechanism; increments a counter.
Exhibition medium: transfer of the game medium obtained to the payment medium of the game itself.	Means of display: It is indicated in the examples that it occurs through the movement of a needle or the explosion of a volcano.
Display control medium: Control the transfer of the game medium according to the obtained game medium.	Means of display control: It is indicated in the examples that it is given through the speed with which the tachometer needle moves or the state of the volcano according to the size of the prize obtained.

CONCLUSION: Claim R1 is new.

Example No. 11
Example of novelty in the field of nanotechnology
Document / Case EP0389179 / T-0547/99
Title - Addition Polymer Particles

SUMMARY
Addition polymer particles with core and shell, without ionic stabilization and of small size (100 nanometers maximum), where the core is an addition polymer and the shell polyoxyalkylene chains, at least a part of which are linked to the core, are present in sufficient chains of the core, such that the mass ratio of the core and cladding ranges from 98:2 to 60:40. The particles are prepared by polymerization in aqueous media initiated at a temperature below 40°C. Preferably, the bubble feeding process is used. The dispersions have excellent rheological characteristics and are very useful, for example, as film formants in coating compositions.

TEXT TO ANALYZE / CLAIM

Independent claims
1. Very small water-insoluble polymer particles capable of forming a stable aqueous dispersion, wherein the particles have a maximum average diameter of 100 nm and a core-shell structure in which the core contains addition polymers and the shell contains Hydrophilic polyoxyalkylene chains containing an average of 6 to 40 oxyalkylene units per chain, characterized in that:
- at least 20% by weight of the polyoxyalkylene chains are linked to the core addition polymer by means of covalent bonds; and
- the shell contains sufficient polyoxyalkylene chains so that the core to sheath weight ratio is between 98:2 and 60:40.

10. A process for the preparation of a stable aqueous dispersion of water-insoluble polymer particles, wherein the particles have a core-shell structure in which the core contains addition polymers and the hydrophobic moiety of an amphiphile and the shell It contains hydrophilic polyoxyalkylene chains solvated from the amphiphile and the polyoxyalkylene chains have an average of 6 to 40 oxyalkylene units per chain, characterized in that:

- the ethylenically unsaturated monomer is polymerized in an aqueous medium in the presence of the amphiphile;
- the hydrophobic half of the amphiphile contains at least one ethylene double bond;
- sufficient polyalkylene chains are present in the aqueous medium to ensure that the weight ratio of the cores to the shells is between 98:2 and 60:40; and
- polymerization starts below 40 °C.

14. A stable aqueous dispersion of water-insoluble polymer particles, characterized in that the dispersion contains particles according to any of claims 1 to 9 or are prepared by a process according to any of claims 10 to 13.

15. A coating composition containing a film-forming material, characterized in that the film-forming material includes an aqueous dispersion according to claim 14.

State of the art:
D2: EP-A-0 013 478,
D3: US-A-4 587 290

ANALYSIS OF NOVELTY
In said resolution it was held that the object of the challenged patent was novel, among other things because none of the citations described sterically stabilized dispersions of particles that had a maximum average diameter of 100 nm and/or a method for their preparation that included a polymerization initiation temperature less than 40 C.

(i) Document D2 did not destroy the novelty for claim 1, because it did not describe aqueous dispersions comprising polymeric particles with a maximum diameter of 100 nm, nor did it disclose that the shell portion of the particles comprised polyoxyalkylene chains containing an average from 6 to 40 oxyalkylene units per chain.

(ii) Similarly, document D3 was not destructive of novelty, because the lowest particle size disclosed therein was 111 nm and the polymerization initiation temperature used in accordance with the examples of D3 was higher than the maximum 40 C allowed by claim

10 of the suit patent. Regarding the number of oxyalkylene units per chain of the shell portion of the particles, Respondent expressed doubt that the reference in Claim 1 of D3 to polyethylene glycol chains with a molecular weight of up to 500 was in line with the description of this document which described polyethylene glycols having a molecular weight in the range of 2000 to 4000.

The object of this claim is novel with respect to D2, because this document does not describe polymer particles that have a maximum average diameter of 100 nm and that have all the other characteristics required by that claim.

Even if the argument were accepted that the information from D2, that the largest particles can be up to ten times the diameter of the smallest ones, could be combined with the lower limit of 0.01. µm (10 nm) of the particle size according to claim 1 of this document (thereby establishing a size range of 10 to 100 nm), such disclosure would not destroy the novelty of the present claim 1, because it would not comprise the additional claimed feature of that the shell portion of the particles comprises an average of 6 to 40 oxyalkylene units.

The object of this claim 1 is also novel with respect to D3 because this document does not describe particles that have a maximum average diameter of 100 nm. The smallest particle size explicitly described in D3 is 111 nm.

OBSERVATIONS: In this case the EPO maintained that a previous patent in which polymer nanoparticles larger than 111 nanometers had been disclosed did not nullify the novelty of a subsequent application for nanoparticles smaller than 100 nanometers. The smaller particles had significantly improved technical characteristics resulting in a brighter surface layer compared to the larger particles protected by the previous patent. The difference in properties was considered sufficient to confer novelty.

4. EXAMPLES OF INVENTIVE LEVEL

Example No. 1
Example of inventive level analysis using the "problem-solution" approach
Document / Case PE 001638-2006/OIN
Title - Pre-established system to install audio video systems in the home

APPLICATION SUMMARY:
An application is submitted for a pre-establishment system for an installation of audio-video systems in the home, comprising: a) a series of speakers or satellite broadcasters; b) at least one speaker; and, c) at least one sound source connected to the system. Components a), b) and c) are connected by means of a first and second male plug, equipped with selector means, to the respective outlets, placed on the perimeter walls of at least one room of a building, in accordance with the pre-establishment of preferential installation of the system. In this way, it is possible to previously pre-establish the system and furnishing of the room and then decide the positions where the diffusers will be placed within it.

INVENTIVE LEVEL ANALYSIS:
A) Determination of the closest state of the art:
- Document D1: US 2,798,172 / DRAMIN DANIEL JONES / Patented date: July 02, 1957 / "Portable Electrical Distribution System" : refers to a system for transmitting audio programs, so that this system is flexible when placed in a certain environment and where the parts are placed following a pattern. It consists of a strip through which the cables pass and at both ends it has a connector, so it can be folded with other strips to increase its reach. In addition, each strip has several outlets, into which the selectors are connected through their male connectors, which depending on their position will transmit only the signals of the chosen program, through the outputs where the headphones can be connected.
1) What is the closest state of the art?: D1

B) Determination of the technical problem to be solved:
2) What is the difference between the claimed invention and the

closest state of the art?: The cables and outlets are placed on the wall; and, speakers or diffusers are used.

3) What technical effect is derived from this difference?: Improve the installation of audio-video systems in the home, by reducing the number of cables and speakers.

4) What is the technical problem in the claimed invention?: Difficulty in installing audio-video systems in the home due to the large number of cables and speakers present in these systems.

C) Analysis of the evidence/non-evidence of the invention based on the state of the art:

5) Would the expert in the field, based on knowledge of the state of the art identified and without using any inventive capacity, have recognized that problem?: yes
Would you have resolved it in the indicated manner?: Yes, for the following reasons:
The technical problem that the invention aims to solve is the difficulty of installing audio-video systems in the home due to the large number of cables and speakers present.

The solution proposed by the inventor consists of placing the wiring corresponding to the different audio outputs on the perimeter walls, so that several outlets are arranged throughout said room. Thus, it is possible to place the audio output devices in the desired position within the environment, by means of a male connector, which also has a selector to select the wiring corresponding to the audio output device.

The difference between the application and the closest prior art (Document D1) is one of several possibilities that the person of the trade would choose depending on the circumstances, without using any inventive effort.

CONCLUSION: There is no inventive level

Example No. 2
Example of inventive level analysis using the "problem-solution" approach
Document / Case PE 000614-2006/OIN
Title - Process for preparing hydrocyanic acid salts

APPLICATION SUMMARY:
An application is submitted for a process to prepare a solution of cyanide salts comprising: a) preparing a raw gas comprising hydrocyanic acid (HCN) by dehydration of formamide to a conversion of the formamide > 97% in a reactor in the presence of air or oxygen and at a temperature between 300 °C and 650 °C; b) if appropriate, wash the raw gas obtained in a) with sulfuric acid; and c) reacting the raw gas obtained in step a) or, if appropriate, in step b) with an aqueous solution of a hydroxide M(OH)x, where M is selected from the group consisting of alkali metals and metals alkaline earth metals (Li, Na and K) and "x" depends on the oxidation state of M and is 1 or 2.

INVENTIVE LEVEL ANALYSIS:
A) Determination of the closest state of the art:
- Document D1: US 3,619,132 / MANN BRILON, HANS-JOACHIM and others / Publication date: 11/09/1971 / "Process for the production of alkaline cyanides": Mentions that alkaline cyanides are known to be produced by neutralization of HCN with alkaline hydroxide. HCN is added in gas and liquid form and alkaline hydroxide is added in an aqueous solution. The process can be carried out so that solid alkali cyanide crystals form or are precipitated from the aqueous solution during evaporation.

- Document D2: WO 2004/050587 / BASSLER PETER et al. / Publication date: 06/17/2004 / "Hydrocyanic acid consisting of formamide": Mentions a method for the production of HCN by means of the catalytic dehydration of gaseous formamide in a reactor having an inner surface of a reactor. One of the examples mentions that in a tubular reactor it is heated to 600 °C and a stream (FA) of gaseous formamide of 200 g/h is made to pass through it at a pressure of 230 mbar with the addition of 24 standard l of air/kg. of FA. This results in an HCN selectivity of 90% and an FA converter of 97%.

- Document D3: ULLMANN'S ENCYCLOPEDIA OF INDUSTRIAL CHEMISTRY / GERHARTZ, WOLFGANG and others / Volume A8, 1987: this document mentions that hydrogen cyanide can be produced when sufficient energy is supplied to a system containing the elements H, N and C. Generally, processes that start from hydrocarbons and ammonium are of economic importance. The HCN gas is washed with dilute sulfuric acid to remove unreacted ammonia. This is necessary to prevent HCN polymerization. The Castner process is based on the stoichiometric reaction of a NaOH or K solution with liquid or gaseous HCN acid.

1) What is the closest state of the art?: D1, D2 and D3

A) Determination of the technical problem to be solved:

1) What is the difference between the claimed invention and the closest state of the art?: HCN is obtained by dehydration of formamide in the presence of air or oxygen at a temperature between 300 °C and 650 °C, achieving a conversion of formamide > 97%.

2) What technical effect is derived from this difference?: improvement in the HCN preparation process.

3) What is the technical problem in the claimed invention?: reducing costly and inconvenient purification steps during the preparation of HCN.

B) Analysis of the evidence/non-evidence of the invention based on the state of the art:

5) Would the expert in the field, based on knowledge of the state of the art identified and without using any inventive capacity, have recognized that problem?: yes

Would you have resolved it in the indicated manner?: Yes, for the following reasons:

The technical problem that the invention aims to solve is the costly and inconvenient purification steps during the preparation of cyanide salts. The proposed solution consists of providing a process to prepare solutions of cyanide salts, from the reaction between an alkaline or alkaline earth hydroxide and HCN, where the required HCN is obtained by dehydration of formamide up to a formamide conversion > 97%, so that the salts have a minimum intrinsic color.

Taking the aforementioned state of the art as a starting point,

the examiner considers that it would be obvious for an expert in the field to arrive at the solution proposed by the invention, based on the combination of its teachings. Indeed, the proposed solution can be achieved by combining what is mentioned in D2 (97% formamide conversion) and D3 (washing of HCN with sulfuric acid diluted in unreacted ammonia), with D1 (HCN obtained from the dehydration of formamide).

CONCLUSION: There is no inventive level

Example No. 3
Example of inventive level analysis using the "problem-solution" approach
Document / Case PE 001616-2006/OIN
Title - Method to recover indium and/or gallium in a zinc leaching procedure

APPLICATION SUMMARY:
It refers to a method for recovering indium and/or gallium in a zinc leaching process that comprises a) carrying a Zn sulfate solution, generated in connection with the leaching of the Zn sulfide concentrate and containing Fe and rare metals such as In and/or Ga, to a neutralization and precipitation step where the solution is neutralized to a pH limit of 2.5 to 3.5 to precipitate the trivalent Fe in the solution and to precipitate at least one rare metal with the Fe ; b) leach the deposit formed of trivalent Fe and, at least, one rare metal, by means of a solution containing sulfuric acid, to leach the rare metal and reduce part of the trivalent Fe to divalent using a reducing agent such as Zn sulfide concentrate , H sulfide and Na sulfide; and, c) take the solution obtained from b) to extraction to recover at least one rare metal.

RELEVANT STATE OF THE ART:
INVENTIVE LEVEL ANALYSIS:
A) Determination of the closest state of the art:
- Document D1: WO 03/056042 & PE 001170-2002/OIN / LAHTINEN, MARKO et al. / Publication date: 07/10/2003 / "A method for precipitating iron in the form of hematin from iron sulfate solution zinc": describes a method for precipitating Fe, where it is mentioned that, depending on the procedure used, the amount of

trivalent Fe in the Zn sulfate solution varies from a few grams to dozens of grams per liter. It is also indicated that the amount of Fe in the Zn sulfate solution is 20-35 g/l. Likewise, it is specified that during the precipitation of goethite the amount of free acid in the Zn sulfate solution that goes towards the precipitation of iron is 4 to 8 g/l and the amount of ferric ion is 1 to 2 g/l. Oxygen and calcine are fed into the solution, so that Fe is precipitated in the form of goethite.

- Document D2: WO 02/46481 / FUGLEBERG, Sigmund / Publication date: 06/13/2002
1) / "Method for hydrolytic precipitation of iron": it is mentioned that metals such as gallium, indium and germanium, present in the Zn concentrate in small quantities, dissolve during the leaching of ferrite and always precipitate with ferric ion. Separation of these is very difficult if the Fe remains in ferric form all the time. As the Fe in solution going to pre-neutralization is now divalent, the recovery of said metals is possible, for example, by neutralizing the solution separately before the neutralization step is carried out. In this case, the solution is neutralized to a pH of 4, obtaining an iron-free precipitate containing gallium, indium and germanium.

1) What is the closest state of the art?: D1 and D2

B) Determination of the technical problem to be solved:
2) What is the difference between the claimed invention and the closest state of the art?:
- With respect to D1: Precipitation of a solution of Zn sulfate with In and Ga together with 5% to 10% ferric iron.
- With respect to D2: In D2 the Ga and In contained in a Zn sulfate solution dissolve during the leaching of ferrite and always precipitate with ferric ion, so the separation of said metals is difficult when the iron is kept in ferric form so the divalent iron must be neutralized separately to precipitate Ga and In at a pH of 4.

3) What technical effect is derived from this difference?:
That the impurities in the indium and/gallium recovery process, such as iron, are not precipitated excessively.

4) What is the technical problem in the claimed invention?:
The obstacle during the production of pure indium due to the amount of ferric iron present in a sulfurous zinc concentrate.

C) Analysis of the evidence/non-evidence of the invention based on the state of the art:

5) Would the expert in the field, based on knowledge of the state of the art identified and without using any inventive capacity, have recognized that problem?: YES

Would you have resolved it in the indicated way?:
No, because of the following:

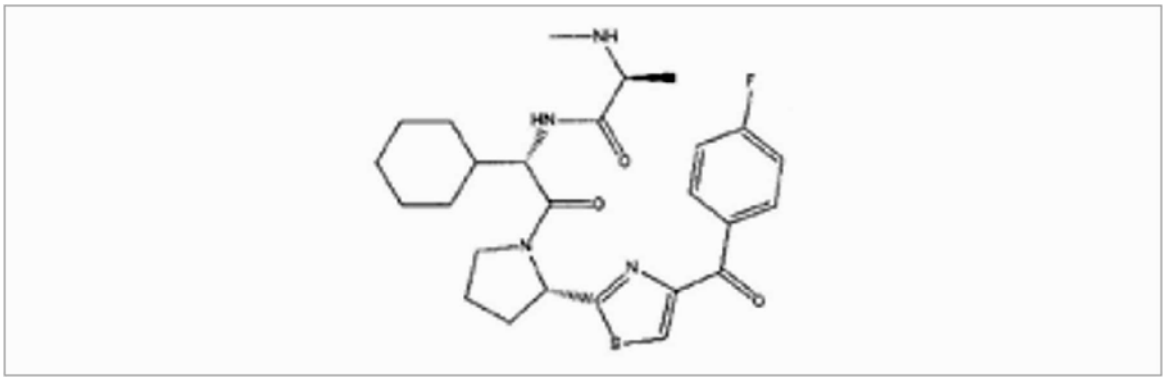
The solution proposed by the inventor consists of regulating the amount of trivalent iron in the zinc sulfate solution to 5-10% of the amount of iron in the solution, which corresponds to the amount necessary to precipitate at least one rare metal. of those that are going to be precipitated from the solution and raise the pH of the solution to the limit of 2.5-3.5, thus regulating the neutralization and precipitation stage to the correct limit, so that the impurities that are obtained in These processes, like iron, are not precipitated excessively. Likewise, for zinc.
From the teachings of the state of the art, it is considered that it is not obvious to the person skilled in the art, the step of neutralizing Fe +3 to Fe +2 with 5 to 10% of trivalent iron in the solution at a pH between 2, 5 and 3.5.

CONCLUSION: There is an inventive level.

Example No. 4
Example of inventive level analysis using the "problem-solution" approach
Document / Case PE 000978-2007/OIN
Title - Substituted 2-oxo-ethyl-amino-propionamide-pyrrolidin-2-yl- derivatives as inhibitors of SMAC protein binding to apoptosis protein inhibitor

APPLICATION SUMMARY:
It refers to a compound which is (S)-N-((S)-1-Cyclohexyl-2-{(S)-2-[4-(4-fluoro-benzoyl)-thiazol-2-yl]- pyrrolidin-1-yl}-2-oxo-ethyl)-2-methyl-amino-propionamide, or a pharmaceutically

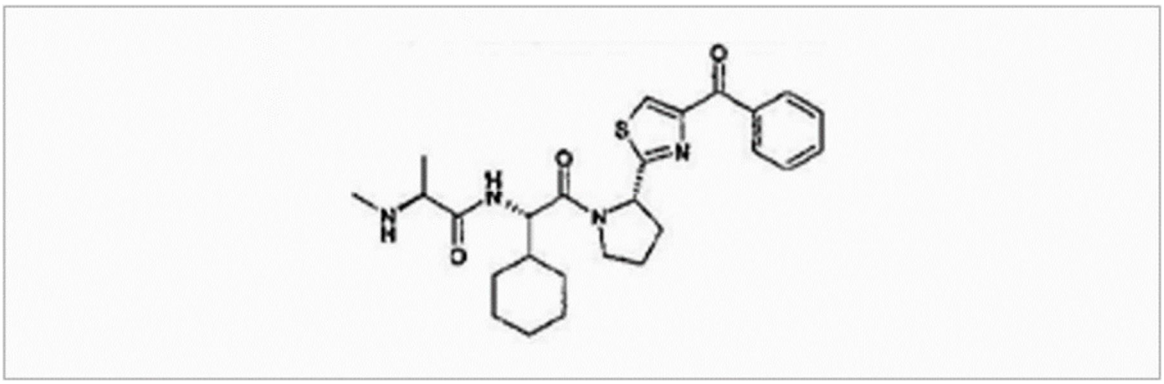
acceptable salt thereof and a composition comprising it. This compound is useful in the treatment of proliferative diseases, such as cancer in mammals.



The applicant presented results from two in-vitro tests and one in-vivo test, where the compound of the application is compared with the compound identified as the closest background (compound 130 of Document D1, indicated below) and the potency of the compound is demonstrated compared to that indicated in the background (about 16 times greater); the greater stability against metabolic processes, so the compound would remain in the bloodstream for a longer time; and, the longest half-life of the compound.

INVENTIVE LEVEL ANALYSIS:

A) Determination of the closest state of the art: - Document D1: WO 2005/097791 A1 / NOVARTIS AG / Publication date: 10/20/2005 – "IAP inhibitors": this document describes compound 130, of formula:



1) What is the closest state of the art?: D1

B) Determination of the technical problem to be solved:

2) What is the difference between the claimed invention and the

closest state of the art?: the presence of a 4-fluorophenyl radical (instead of phenyl, as in D1)
3) What technical effect is derived from this difference?: It presents improved effects compared to known compounds.

4) What is the technical problem in the claimed invention?: The known compounds have limited potency in the treatment of proliferative diseases, as well as poor stability and half-life.

C) Analysis of the evidence/non-evidence of the invention based on the state of the art:
5) Would the expert in the field, based on knowledge of the state of the art identified and without using any inventive capacity, have recognized that problem?: yes

Would you have resolved it in the indicated way?: No, because of the following:
The solution proposed by the inventor consists of providing a compound and an improved composition with respect to the state of the art, useful in the treatment of cancer.
It is considered that it would NOT have been obvious for the expert, starting from the closest state of the art (compound 130 of Document D1), to arrive at the compound proposed in the application, since nothing would have led one to think that the presence of a 4-fluorophenyl radical, would provide surprisingly improved results with respect to the closest state of the art, since the claimed compound has an activity 16 times greater than compound 130, lower hepatic clearance, longer half-life and, therefore, greater metabolic stability.

CONCLUSION: There is an inventive level

Example No. 5
Example of inventive level analysis using the "problem-solution" approach
Document / Case PE 000485-2006/OIN
Title - An electrical connector

APPLICATION SUMMARY:
Refers to an electrical connector, particularly those for connecting telephone pairs, comprising a connector strip with at

least one row of openings containing conductor connection terminals and provided with at least one captive conductor insertion tool capable of pushing or forcing conductors into terminals of the connector strip to establish electrical connection. Each insertion tool is mounted to slide captively with respect to the connector strip to locate the tool in alignment with a selected opening in which a conductor connection is to be made.

INVENTIVE LEVEL ANALYSIS:

A) Determination of the closest state of the art:

- Document D1: US 5820420 / BECHAZ, Bernard et al. / Publication date: 10/13/1998 / "Link connection accessory for a terminal module and a modular mounting terminal incorporated therein": Describes a link accessory connection and/or disconnection for a terminal module and/or a row of identical or similar modules for the connection of electrical and/or optical links in a mounting terminal in which the modules include one or more connecting parts, at least one for each opening in the link and an insertion tool designed to establish connection and/or disconnection between the link and the connecting piece, for which said tool must be aligned with the modules.

1) What is the closest state of the art?: D1

B) Determination of the technical problem to be solved:

2) What is the difference between the claimed invention and the closest state of the art?:

- The connection tool does not require another additional tool to push or force the conductors into the terminals.
- The tool has stop means.

3) What technical effect is derived from this difference?: avoiding having to manually connect the conductors inside the terminals.

4) What is the technical problem of the claimed invention?: The known tools do not have a conductor insertion tool for a strip of connectors, which is available whenever required to make the electrical connection.

C) Analysis of the evidence/non-evidence of the invention based on the state of the art:

5) Would the expert in the field, based on knowledge of the state of the art identified and without using any inventive capacity, have recognized that problem?: yes

Would you have solved it in the indicated way?: No, because of the following: The proposed solution consists of providing a sliding insertion tool that facilitates the connection of the conductors by pushing or forcing them into the terminals.

It is considered that it would not have been obvious for the person skilled in the art, starting from the closest state of the art (Document D1), to arrive at the proposed solution, that is, to provide an electrical connector that comprises a strip of connectors, with at least one row of openings with connection terminals, which permanently has all the necessary means to connect the connectors within the terminals and which has stop means that allow the pushing means to be aligned with the openings, thus avoiding manual connection.

CONCLUSION: There is an inventive level

Example No. 6
Example of inventive level analysis using the "problem-solution" approach
Document / Case PE 001048-2006/OIN
Title - Circular bakery products slicer

APPLICATION SUMMARY:

It refers to an automatic circular slicer for bakery products, which comprises a supporting structure of a sliding base plate with a drive means that transmits longitudinal reciprocating movement. The plate superiorly supports a plate that inferiorly comprises a rotating drive means. The bakery product to be sliced is placed on the rotating plate. It also includes a slicing medium driven by a motor, which is arranged on the rotating plate, to make diametric cuts in the product. The sliding plate passes through the bakery product via the slicing means, making diametrical cuts as it moves. The turntable is kept stationary and at the end of the longitudinal stroke at each end, the turntable is rotated certain degrees.

INVENTIVE LEVEL ANALYSIS:

A) Determination of the closest state of the art:

- Document D1: US 4,565,053 / BROWNE et al. / Publication date: 01/21/1986 / "Processor for dividing pastry products and inserting separators": Refers to a pastry processor that has a base structure and a mounted turntable about this one. A main column is also mounted on said structure and a vertical blade track on it. A blade holder and the blade are further reciprocally mounted on the track so that they are slideable up and down with respect to the rotating plate and the pastry product located on said plate. This apparatus divides or cuts the product into positionally accurate slices and separates them using a separator, such as a piece of coated paper. This device reduces product handling and damage caused to cut portions.

1) What is the closest state of the art?: D1

B) Determination of the technical problem to be solved:

2) What is the difference between the claimed invention and the closest state of the art?: The cutting of the product is carried out each time the rotating plate that supports the product slides in the direction of the blade holder, remaining motionless. in place and only with a rotation movement of the blade (in D1 the product is cut once it is located in a second fixed position under the blade and by the action of the blade cutter).

3) What technical effect is derived from this difference?: making radial cuts efficiently and automatically, minimizing manual intervention and obtaining precise cuts with excellent appearance.

4) What is the technical problem of the claimed invention?: Existing automatic slicing machines do not allow proper slicing, where the slices have similar sizes and weights.

C) Analysis of the evidence/non-evidence of the invention based on the state of the art:

1) Would the expert in the field, based on knowledge of the state of the art identified and without using any inventive capacity, have recognized that problem?: yes

Would it have been resolved in the manner indicated?: Yes, for the following reasons: The closest state of the art, that is, Document D1, solves by itself the problem raised in the application, since the machine described in said document allows obtaining Radial cuts on pastry products in a circular shape, avoiding manipulation by operators and making precise cuts that allow slices of similar size and weight to be achieved.

Therefore, it is considered that what was requested would have been obvious to the expert in the field.

Example No. 7
Example of an inventive step in the field of nanotechnology
Document / Case EP0689454/ T 0552/00
Title - Vaccine compositions containing 3-O-desacylated monophosphoryl lipid A.

SUMMARY
New vaccine compositions are presented that comprise small particles of 3-O-deacylated monophosphoryl lipid A. In particular the particle size is below 120 nm. Such vaccine compositions have superior immunological properties.

Text to analyze
Claims
1. A vaccine composition comprising an antigen in conjunction with 3-O-deacylated monophosphoryl lipid A (3D MPL) and a suitable carrier in which the particle size of the 3D-MPL does not exceed 120 nm.
2. A vaccine composition according to claim 1 wherein the particle size of the 3-O-desacylated monophosphoryl lipid A is in the range of 60-120 nm.
3. A vaccine composition according to claim 1 in which the particle size of the 3-O-desacylated monophosphoryl lipid A is less than 100 nm.

State of the art:
(5) WO 92/11291
(6) WO 92/16231
(7) WO 92/06113

INVENTIVE LEVEL ANALYSIS:

A) Determination of the closest state of the art:
Documents (5), (6) or (7) can be considered as the closest state of the art, since these documents teach essentially the same thing, that is, the use of 3D-MPL as an adjuvant to produce vaccine compositions. Document (5) establishes on page 29 (lines 20 to 35) that "submicron particles" have been used and document (7) defines on page 9 (lines 19 and 20) said submicron particles with a size between 100 and 400 nm. Document (6) does not say anything about the size of said 3D-MPL particles.

B) Determination of the technical problem to be solved:
The technical problem to be solved in view of each of these documents can be defined as the improvement of the adjuvant properties of 3D-MPL.

The solution given in claims 1 to 3, respectively, is the reduction of the size of the 3D-MPL particles below 120 nm, to a range of 60 to 120 nm or below 100 nm.

The first question regarding the assessment of the inventive level is whether the aforementioned state of the art would have led the expert to this solution in an obvious way. The second question is whether this problem has been resolved, that is, whether the patent in dispute demonstrates that reduced-size 3D-MPL particles have improved adjuvant properties.

C) Analysis of the evidence/non-evidence of the invention from the state of the art: None of the documents (5), (6) and (7) suggest that a 3D-MPL particle size reduction would be of any benefit advantage. They only use particles with a size distribution that follows a Gaussian curve, the extremes of which are represented by 100 nm and 400 nm and therefore centered on a mean size of approximately 250 nm.

OBSERVATIONS: In this case the vaccine adjuvant was considered to respond at an inventive level, due to the unanticipated enhanced effect and the fact that there was nothing in the prior art to suggest that a skilled person would consider reducing the size of the particles to achieve those results.

Example No. 8

Example of biomarkers (lack of inventive step)

Document/Case CO NC2018/0006126

Title - Biomarker of polycystic kidney disease and its uses.

BACKGROUND/SUMMARY

Provided herein are methods for determining the effectiveness of treatment for polycystic kidney disease (PRD) in a patient, diagnosing PRD in a patient, staging PRD in a patient, and monitoring the EPR in a patient. These methods include the determination of a single or multiple levels of AMBP. Also provided are kits that include an antibody that specifically binds to the AMBP protein and at least one antibody that specifically binds to an additional RPE marker.

TEXT TO ANALYZE / CLAIM

1. An in vitro method for determining the efficacy of treatment of polycystic kidney disease (RPD) in a patient, the method comprising: (a) providing a first sample comprising a biological fluid obtained from a patient with RPE at a first point of time; (b) determine a level of α-1-microglobulin/bikunin precursor (AMBP) in the first sample; (c) providing a second sample comprising a biological fluid obtained from the EPR patient at a second time point after the first time point, wherein the EPR patient received an EPR treatment between the first and second time points. time and determine an AMBP level in the second sample; and (d) identify that the treatment is effective if the level in the second sample is lower than the level in the first sample

EXAM ANALYSIS

Essential Features	**D1 EP2160478**
An in vitro method for determining the effectiveness of the treatment of polycystic kidney disease (RPD) in a patient, the method comprising:	A method for determining kidney disease, the method comprises (Reives. 1 to 10):
(a) providing a first sample comprising a biological fluid obtained from a patient with RPE at a first time point; (b) determine a level of α-1-microglobulin/bikunin precursor (AMBP) in the first sample; (c) providing a second sample comprising a biological fluid obtained from the EPR patient at a second time point after the first time point, wherein the EPR patient received an EPR treatment between the first and the second time point and determining an AMBP level in the second sample; and (d) identify that the treatment is effective if the level in the second sample is lower than the level in the first sample.	Determine at a first time point, the level of bikunin in a urine sample obtained from a subject; determine at a second time point the level of bikunin in the urine sample obtained from the subject and compare the first and second measurements to determine the presence of kidney disease, progression or regression compared to the normal values of an individual without the disease (Reives. 1 to 10).

Document D1 is considered the state of the art closest to the invention defined in claim 1 because it discloses a method to determine kidney disease (Reives.1 to 10), this document also discloses that said method can be combined with other tests. to lead to the diagnosis or determination of the effectiveness of a specific treatment for kidney disease (Para. [0076]). As well as, to establish the progression of kidney disease (Examples 1 – 3, Table 2).

The difference between the invention defined in claim 1 and the method disclosed in D1 is that the application mentions that the second sample is taken at a second time point, whether the EPR

patient received treatment for EPR to determine its effectiveness.

The technical effect achieved by including the collection of a second sample at a second time point, where the EPR patient received treatment for EPR, is the determination of the effectiveness of the EPR treatment (Figure 15 to 22).

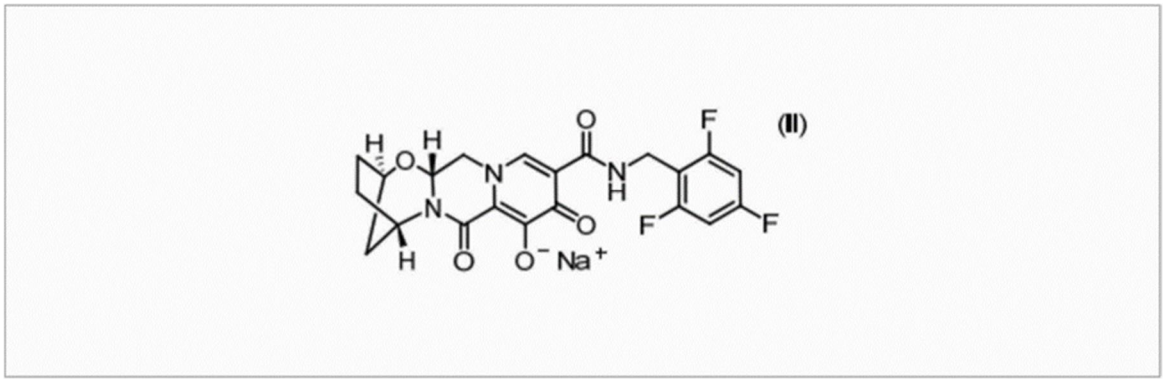
Therefore, the objective technical problem that this invention aims to solve can be formulated as follows: How to modify the method known in D1 in order to determine the effectiveness of the treatment of polycystic kidney disease (RPD) in a patient? However, including a second measurement of bikunin levels, once the patient received EPR treatment to measure its effectiveness, is already disclosed in document D1 when it mentions that said method can be combined with other tests to lead to the diagnosis. or determination of the effectiveness of a treatment for kidney disease (Para. [0076]).

CONCLUSIONS: Consequently, the person normally versed in the matter would be motivated to include a second measurement of bikunin levels, once the patient received treatment for EPR, from document D1 in the application method in order to reach the objective of the claim 1. Therefore, it is considered obvious.

Example No. 9
Example of polymorphs (inventive level)
Document / Case CO NC2016/0005523
Title - Anhydrous crystalline form of the compound Sodium (2r,5s,13ar)-7,9-dioxo-10-((2,4,6-trifluorobenzyl)carbamoyl)-2,3,4,5,7,9,13,13a-octahydro-2,5-methanopyrido[1',2':4,5]pyrazino[2,1-b][1,3]oxazepin-8-olate

BACKGROUND/SUMMARY
The present invention relates to (2R,5S,13aR)-7,9-dioxo-10-((2,4,6-trifluorobenzyl)carbamoyl)-2,3,4,5,7,9,13,13a Sodium -octahydro-2,5-methanopyride [1',2':4,5] pyrazino[2,1-b][1,3] oxazepin-8-olate (Formula II) and its related crystalline forms. It also refers to the pharmaceutical formulations and synthesis methods of said compounds and crystalline forms, which are useful

in the treatment of HIV.

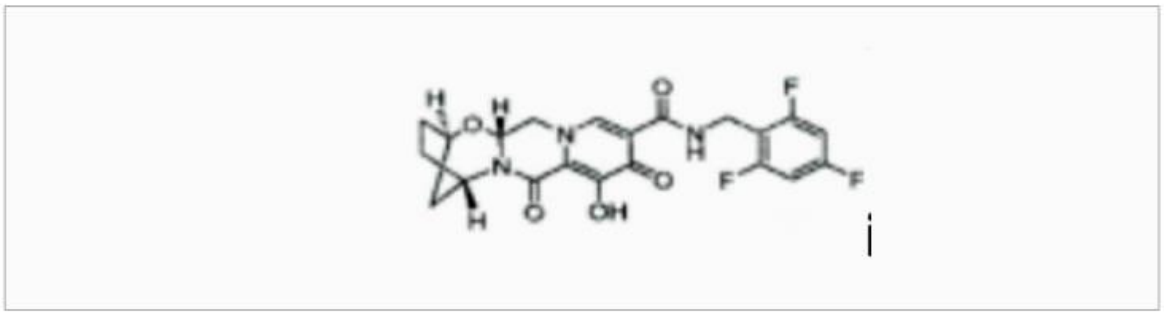


characterized in that it has an X-ray powder diffraction pattern (XRPD) which has peaks at approximately 5.5°, 16.1°, 17.9°, 19.5°, 23.3°, 22.1°, 22.5°, 26.6° and 28.5° 2-θ ± 0.2°, by a differential scanning calorimetry (DSC) standard comprising an endotherm with an onset temperature at endotherm with a starting temperature at 25 °C ± 0.5 °C and a dynamic vapor sorption (DVS) pattern (DVS) showing less than 1.025% ± 0.05% gain in weight at 90% RH and 25 °C. 25 °C.

EXAM ANALYSIS

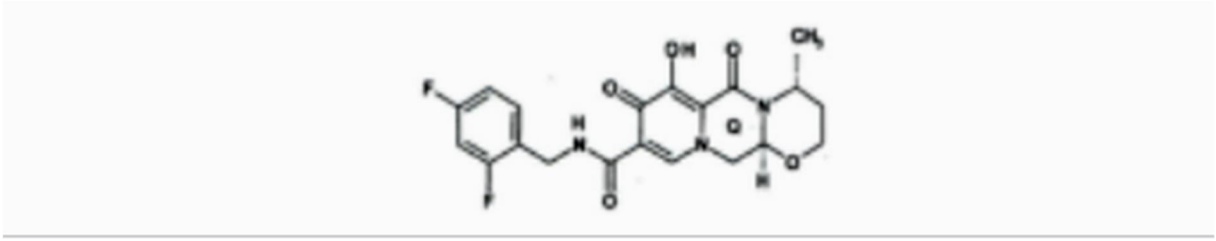
The invention does not meet the inventive step requirement.
State of the Art: WO2014100323, WO2010068253, EP2495580 and WO2015138933.

WO2014100323 (June 26, 2014) This document teaches the compound of formula



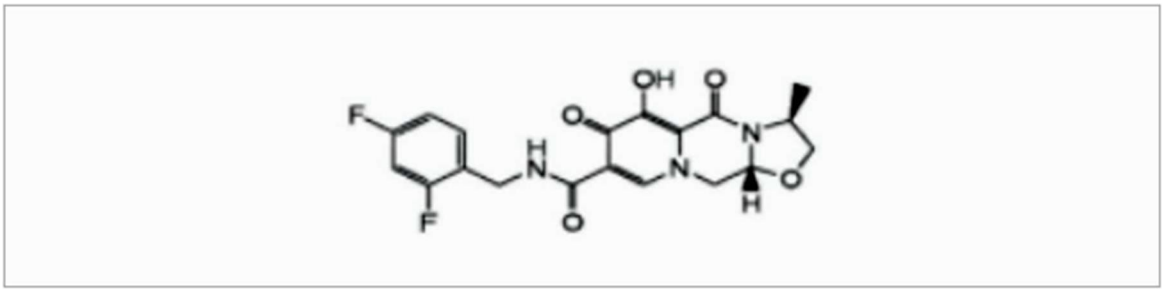
incorporated in a pharmaceutical composition, which additionally comprises other anti-HIV active agents. According to the teachings set forth herein, the application lacks inventive step.

WO2010068253 (17/June/2010): This document discloses sodium crystalline salts of the compound of formula AA and method of preparation thereof.



According to the teachings set forth in this document, the application lacks an inventive step.

EP2465580 (June 20, 2012): This document teaches compounds derived from a sodium salt of compounds derived from polycyclic carbamoylpyridone and their compositions.



According to the teachings set forth in this document, the application lacks an inventive step.

WO2015138933 (09/17/2015): This document discloses a crystalline form X of dolutegravir sodium and compositions containing it. According to the teachings set forth in this document, the application lacks an inventive step.
However, none of these documents object to the patentability of the object of the invention, since although document WO2014100323 reveals the sodium salt of the compound (2R,5S,13AR)-7,9-dioxo-10- ((2,4 ,6-trifluorobenzyl)carbamoyl)-2,3,4,5,7,9,13,13Aoctahydro-2,5-methanopyride [1',2':4,5]pyrazino[2,1-B][1 ,3]oxazepin-8-olato the publication date (June 26, 2014) of this document was published after the priority date of the application (June 20, 2014). Regarding document WO2015138933, its publication date corresponds to September 27, 2015; In addition, it presents anti-HIV compounds whose structures are far from the claimed compound.

About documents WO2010068253 and EP2495580, although it is true that they present compounds that inhibit HIV replication, it is no less true that these are not structurally close to the compound (2R,5S,13AR)-7,9-dioxo-10- ((2,4,6-

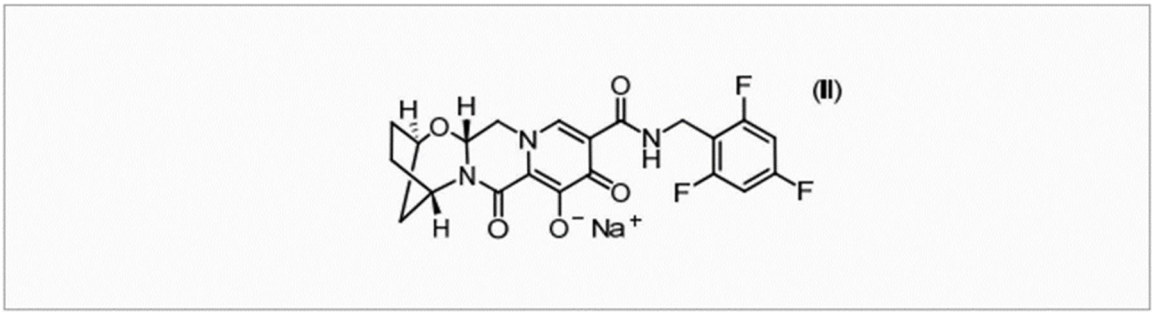
trifluorobenzyl)carbamoyl)-2,3,4,5,7,9,13,13A-octahydro-2,5-methanopyride [1',2':4,5] pyrazino[2, 1-B][1,3]oxazepin-8-olate.

OBSERVATIONS: The arguments that differentiate the crystalline form from what is disclosed in the state of the art (difference in salt) are recognized and unexpected effects are recognized in terms of stability and elimination of impurities.

Example No. 10
Example of polymorphs (inventive level)
Document / Case PE 206-2014/DIN
Title - Tenofovir Alafenamide Crystalline Hemifumarate

BACKGROUND/SUMMARY

It refers to the compound tenofovir alafenamide hemifumarate whose XRPD pattern comprises 2 theta values of 6.9 ± 0.2°, 8.6 ± 0.2°, 11.0 ± 0.2°, 15.9 ± 0.2° and 20.2 ± 0. 2° and has an initial differential scanning calorimetry (DSC) endotherm of 131 ± 2 °C; where the ratio of fumaric acid to tenofovir alafenamide is 0.5 ± 0.1. It also refers to a preparation procedure and to a pharmaceutical composition. Said compound is useful in the treatment of human immunodeficiency virus (HIV) infection. immunodeficiency virus (HIV), hepatitis B virus.



TEXT TO ANALYZE / CLAIM

A compound which is a crystalline form of 9-[(R)-2-[[[[(S)-[[[(S)-2-(isopropoxycarbonyl)ethyl]ethyl]amino]phenoxyphosphinyl]methoxy]propyl]adenine hemifumarate (tenofovir alafenamide hemifumarate), having an X-ray powder diffraction pattern (XRPD) comprising 2-theta values of 6. 9 ± 0.2°, 8.6 ± 0.2°, 11.0 ± 0.2°, 15.9 ± 0.2° y 20.2 ± 0.2°.

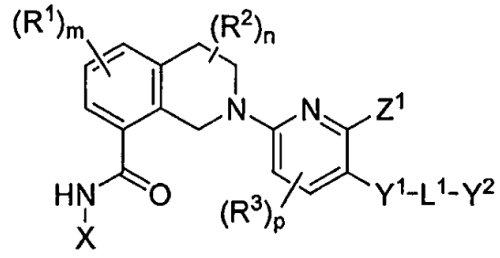
OBSERVATIONS: The arguments in favor of the differences between the claimed crystalline form and the prior art disclosure are

recognized, as well as its unexpected technical effect related to its chemical and thermal stability and ability to purge impurities.

Example No. 11
Example of Markush Type (inventive level)
Document / Case EC IEPI-2014-357 / ECSP14000357
Title - 8-Carbamoyl-2-(2,3-pyrid-6-yl disubstituted)-1,2,3,4-tetrahydroisoquinoline derivatives as apoptosis-inducing agents for the treatment of cancer and immune and autoimmune diseases

BACKGROUND/SUMMARY
Compounds that inhibit the activity of Bcl-xL antiapoptotic proteins, compositions containing said compounds and methods of treating diseases in which Bcl-xL antiapoptotic proteins are expressed.

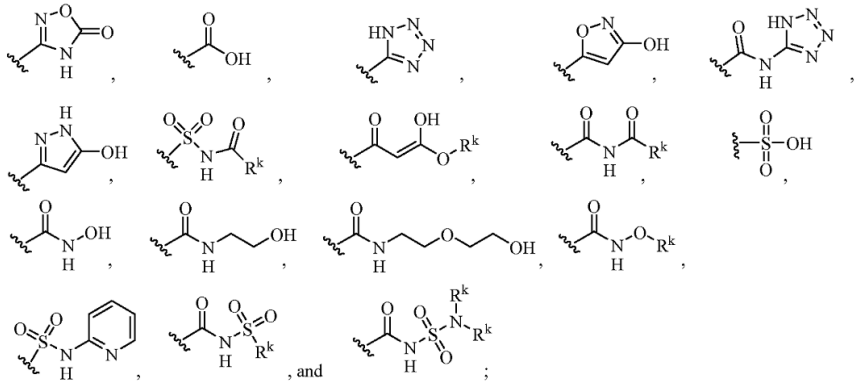
TEXT TO ANALYZE / CLAIM
1. A compound having Formula (I)



Formula (I)

or a therapeutically acceptable salt thereof, wherein
X is heteroaryl; wherein the heteroaryl represented by X is optionally substituted with one, two, three, or four R4;
Y1 is phenylene or C5-6 heteroarylene; optionally fused to one or two rings selected from the group consisting of C3-8 cycloalkane, C3-8 cycloalkene, benzene, C5-6 heteroarene, C3-8 heterocycloalkane, and C3-8 heterocycloalkene;
wherein Y1 is optionally substituted with one, two, three, or four substituents independently selected from the group consisting of R5, OR5, SR5, S(0)R5, S02R5, C(0)R5, CO(0)R5, OC(0)R5, OC(0)OR5, NH2, NHR5, N(R5)2, NHC(0)R5, NR5C(0)R5, NHS(0)2R5, NR5S(0)2R5, NHC(0)OR5, NR5C(0)OR5, NHC(0)NH2, NHC(0)NHR5, NHC(0)N(R5)2, NR5C(0)NHR5, NR5C(0)N(R5)2, C(0)NH2, C(0)NHR5, C(0)N(R5)2, C(0)NHOH, C(0)NHOR5, C(0)NHS02R5,

C(0)NR5S02R5, S02NH2, S02NHR5, S02N(R5)2, CO(0)H, C(0)H, OH, CN, N5, N02, F, CI, Br and I;
L1 is selected from the group consisting of (CR6R7)q, (CR6R7)s-0-(CR6R7)r, (CR6R7)S-C(0)-(CR6R7)r, (CR6R7)s-S-(CR6R7)r, (CR6R7)s-S(0)2-(CR6R7)r, (CR6R7)s-NR6AC(0)-(CR6R7)r, (CR6R7)s-C(0)NR6A-(CR6R7)r, (CR6R7)s-NR6A-(CR6R7)r, (CR6R7)s-S(0)2NR6A-(CR6R7)r, and (CR6R7)s-NR6AS(0)2-(CR6R7)r;
Y2 is C8-14 cycloalkyl, C8-14 cycloalkenyl, C8-14 heterocycloalkyl, or C8-14 heterocycloalkenyl; optionally fused to one or two rings selected from the group consisting of C3-8 cycloalkane, C3-8 cycloalkene, benzene, C5-6 heteroarene, C3-8 heterocycloalkane, and C3-8 heterocycloalkene;
wherein Y2 is optionally substituted with one, two, three, four, or five substituents independently selected from the group consisting of R8, OR8, SR8, S(0)R8, S02R8, C(0)R8, CO(0)R8, OC(0)R8, OC(0)OR8, NH2, NHR8, N(R8)2, NHC(0)R8, NR8C(0)R8, NHS(0)2R8, NR8S(0)2R8, NHC(0)OR8, NR8C(0)OR8, NHC(0)NH2, NHC(0)NHR8, NHC(0)N(R8)2, NR8C(0)NHR8, NR8C(0)N(R8)2, C(0)NH2, C(0)NHR8, C(0)N(R8)2, C(0)NHOH, C(0)NHOR8, C(0)NHS02R8, C(0)NR8S02R8, S02NH2,
S02NHR8, S02N(R8)2, CO(0)H, C(0)H, OH, CN, N3, N02, F, CI, Br and I;
Z1 is selected from the group consisting of



R1, at each occurrence, is independently selected from the group consisting of halo, C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, and C1-6 haloalkyl;
R2, at each occurrence, is independently selected from the group consisting of deuterium, halo, C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, and C1-6 haloalkyl;
two R2 that are attached to the same carbon atom, together with said carbon atom, optionally form a ring selected from the group

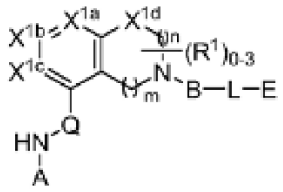
consisting of heterocycloalkyl, heterocycloalkenyl, cycloalkyl, and cycloalkenyl;
R3, at each occurrence, is independently selected from the group consisting of halo, C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, and C1-6 haloalkyl;
R4, at each occurrence, is independently selected from the group consisting of NR12R13, OR12, CN, N02, halogen, C(0)OR12, C(0)NR12R13, NR12C(0)R13, NR12S(0)2R14, NR12S(0)R14, S(0)2R14, S(0)R14 and R14;
R5, at each occurrence, is independently selected from the group consisting of C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, C1-6 haloalkyl, C1-6 hydroxyalkyl, aryl, heterocyclyl, cycloalkyl, and cycloalkenyl;
R6A is independently selected from the group consisting of hydrogen, C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, and C1-6 haloalkyl;
R6 and R7, at each occurrence, are each independently selected from the group consisting of hydrogen, R15, OR15, SR15, S(0)R15, S02R15, C(0)R15, CO(0)R15, OC(0)R15, OC(0)OR15, NH2, NHR15, N(R15)2, NHC(0)R15, NR15C(0)R15, NHS(0)2R15, NR15S(0)2R15, NHC(0)OR15, NR15C(0)OR15, NHC(0)NH2, NHC(0)NHR15, NHC(0)N(R15)2, NR15C(0)NHR15, NR15C(0)N(R15)2, C(0)NH2, C(0)NHR15, C(0)N(R15)2, C(0)NHOH, C(0)NHOR15, C(0)NHS02R15, C(0)NR15S02R15, S02NH2, S02NHR15, S02N(R15)2, CO(0)H, C(0)H, OH, CN, N3, N02, F, CI, Br and I;
R , at each occurrence, is independently selected from the group consisting of C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, Cue haloalkyl, aryl, heterocyclyl, cycloalkyl, and cycloalkenyl; wherein the R8 Cue alkyl, C2-6 alkenyl, C2-6 alkynyl, and Cue haloalkyl are optionally substituted with one, two, three, four, five, or six substituents independently selected from the group consisting of R16, OR16, SR16, S(0)R16, S02R16, C(0)R16, CO(0)R16, OC(0)R16, OC(0)OR16, NH2, NHR16, N(R16)2, NHC(0)R16, NR16C(0)R16, NHS(0)2R16, NR16S(0)2R16, NHC(0)OR16, NR16C(0)OR16, NHC(0)NH2, NHC(0)NHR16, NHC(0)N(R16)2, NR16C(0)NHR16, NR16C(0)N(R16)2, C(0)NH2, C(0)NHR16, C(0)N(R16)2, C(0)NHOH, C(0)NHOR16, C(0)NHS02R16, C(0)NR16S02R16, S02NH2, S02NHR16, S02N(R16)2, CO(0)H, C(0)H, OH, CN, N3, N02, F, CI, Br and I; wherein the R8 aryl, heterocyclyl, cycloalkyl, and cycloalkenyl are optionally substituted with one, two, or three substituents independently selected from the group consisting of Cue alkyl,

C2-6 alkenyl, C2-6 alkynyl, Cue haloalkyl, NH2, C(0)NH2, S02NH2, C(0)H, (O), OH, CN, N02, OCF3, OCF2CF3, F, CI, Br and I;
R9 is selected from the group consisting of C e alkyl, C2-6 alkenyl, C2-6 alkynyl, C e haloalkyl, cycloalkyl, phenyl and (CH2)1-4 phenyl; and
R10 and Rn, at each occurrence, are each independently selected from the group consisting of hydrogen, C1-6 alkyl, C2-6 alkenyl, C2.6 alkynyl, C3-6 cycloalkyl, C1-6 haloalkyl, phenyl and (CH2)1-4-phenyl; or
R10 and Rn, or R10 and R9, together with the atom to which each is attached are combined to form a heterocyclyl;
Rk, at each occurrence, is independently selected from the group consisting of C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, C3-7 heterocycloalkyl, C3-7 cycloalkyl and C1-6 haloalkyl;
R12 and R13, at each occurrence, are each independently selected from the group consisting of hydrogen, C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, C1-4 haloalkyl and (CH2)14 phenyl;
R14, at each occurrence, is independently selected from the group consisting of C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl and C1-4 haloalkyl;
R12 and R13, or R12 and R14, at each occurrence, together with the atom to which each is attached, are optionally combined to form a heterocyclyl;
R15, at each occurrence, is independently selected from the group consisting of C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, C1-4 haloalkyl, C1-4 hydroxyalkyl, aryl, heterocyclyl, cycloalkyl, and cycloalkenyl; wherein the R15 C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, C1-4 haloalkyl, and Ci_4 hydroxyalkyl are optionally substituted with one, two, or three substituents independently selected from the group consisting of 0-(C1-4 alkyl), NH2, C(0)NH2, S02NH2, C(0)H, C(0)OH, (O), OH, CN, N02, OCF3, OCF2CF3, F, CI, Br and I;
R , at each occurrence, is independently selected from the group consisting of C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, C1-4 haloalkyl, C1-4 hydroxyalkyl, aryl, heterocycloalkyl, heterocycloalkenyl, heteroaryl, cycloalkyl, and cycloalkenyl; wherein the R16 C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, C1-4 haloalkyl, and C1-4 hydroxyalkyl are optionally substituted with one substituent independently selected from the group consisting of OCH3, OCH2CH2OCH3, and OCH2CH2NHCH3;
q is 1, 2, or 3;

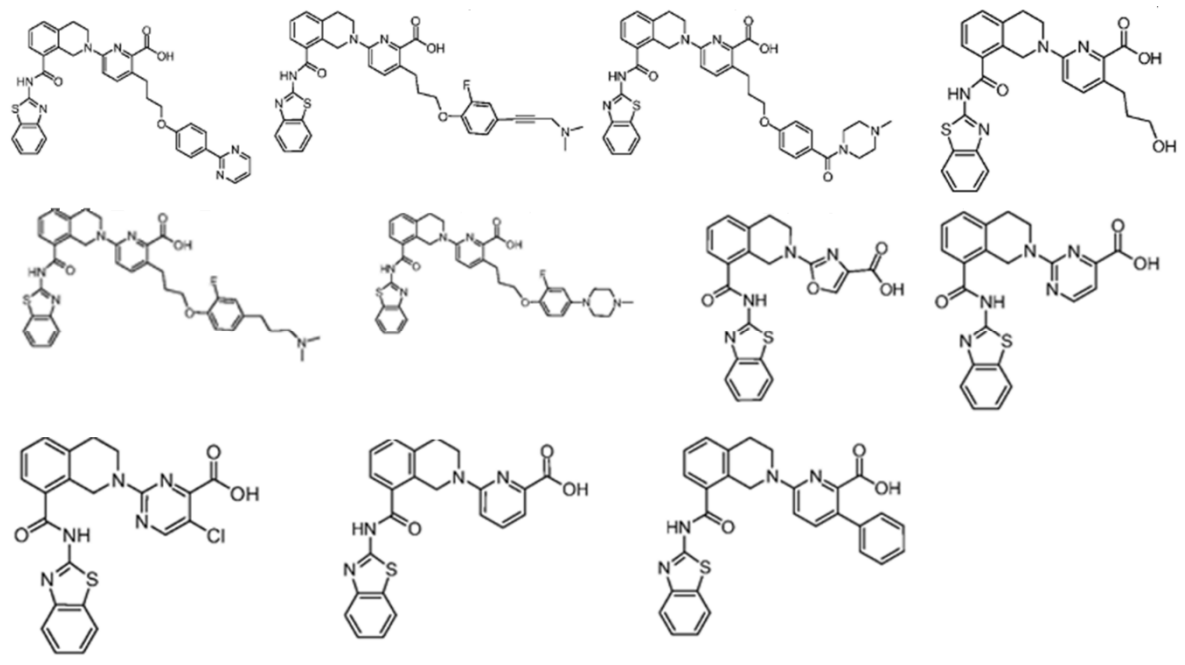
s is 0, 1, 2, or 3;
r is 0, 1, 2, or 3;
wherein the sum of s and r is 0, 1, or 2;
m is 0, 1, 2, or 3;
n is 0, 1, 2, 3, 4, 5, or 6; and
p is 0, 1, or 2.

EXAM ANALYSIS: D1: WO2010080503 MOLECULAR STRUCTURE;

It refers to the following compounds of formula I

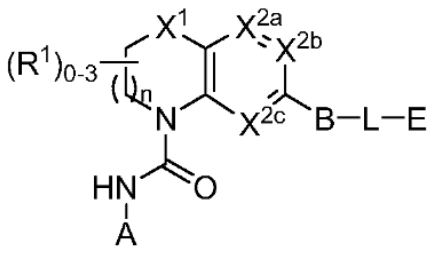


Examples include:



D2: WO2010080478 MOLECULAR STRUCTURE

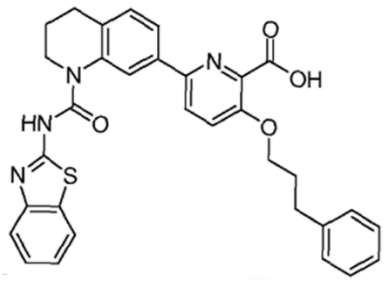
Describe the following compounds of formula I

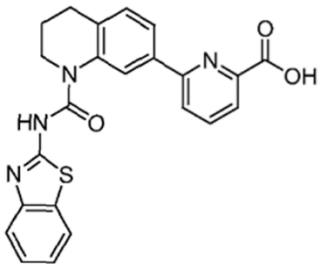


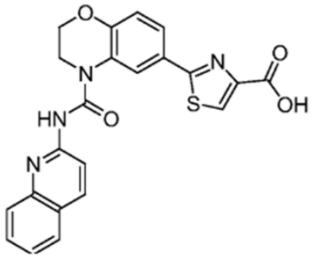
I

Examples are cited

PHARMACOLOGICAL ACTIVITY: Treat diseases in which the antiapoptotic proteins Bcl-xL are expressed, selectively inhibit the activity of a type or a subset of the antiapoptotic proteins of the Bcl-2 family, for example, the antiapoptotic protein Bcl-xL.







5. EXAMPLES OF UTILITY MODELS

Example No. 1
Utility Model Example
Country – Bolivia
Application - BO2013000268
Title - IMPROVED TRUCK SIDE SUPPORT

SUMMARY

The present invention consists of a lateral support for a forklift made up of a profile that runs continuously along a first clamping extension, a first arm, a horizontal support area, a second arm and a second clamping extension that as a whole They give the lateral support a substantially "U" shape. Furthermore, the support is characterized in that the cross-sectional section of the profile is made up of a horizontal plane, a left lateral portion that continues until forming a first folding portion and a right lateral portion that continues until forming a second

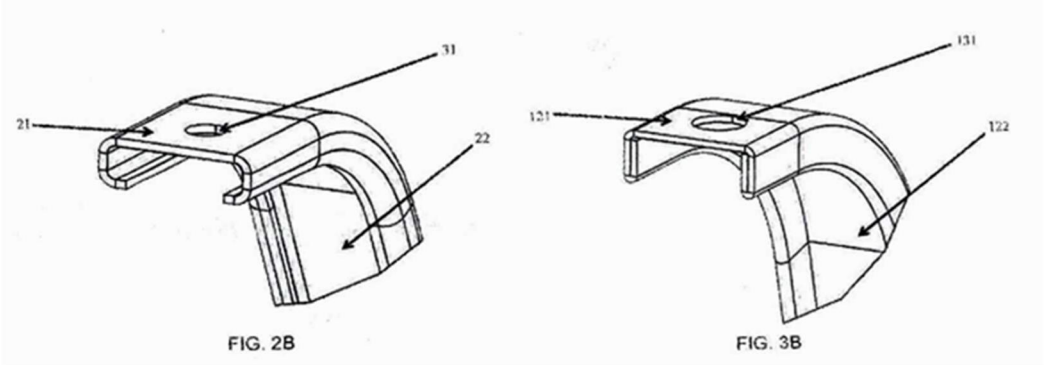


FIG. 2B FIG. 3B

folding portion, in where both fold portions are folded inwards. In this way, the lateral support of the forklift makes it possible to achieve greater structural resistance for the transmission of the compression forces of the load of the forklift with the ground, as well as greater resistance to fatigue failure due to the continuous impacts of load and unloading during the movement and rest of a forklift. The above without the need to add material or weight to the total assembly of the forklift.

OBSERVATIONS: Technical advantage. The lateral support of the forklift makes it possible to achieve greater structural resistance for the transmission of the compression forces of the load of the forklift with the ground, as well as greater resistance to fatigue failure due to the continuous impacts of loading and unloading during movement. and rest of a wheelbarrow.

Example No. 2
Utility Model Example
Country – Colombia
Application - NC2019/0013242
Title - ORODISPERSABLE TABLET DISPENSER COVER

SUMMARY

This utility model refers to a single cap that aims to dispense ODT tablets while minimizing their damage. The ODT tablet dispensing cap is placed instead of a conventional cap on a container containing the pharmaceutical form, where said cap allows for dosing from one to five ODT tablets with a single turn of the mechanism and a transparent reservoir supports the turn. of the mechanism, receiving the tablets that are extracted from the container, which additionally detaches to ingest the tablets without having to touch them.

Claim 1

An ODT tablet dispensing cap, characterized in that it consists of:

- a cylindrical driving element with a hollow lower end; and an upper end with an internal surface and a flat upper surface which has a connector means and at least one conical hole that guides an ODT tablet towards a loading element;

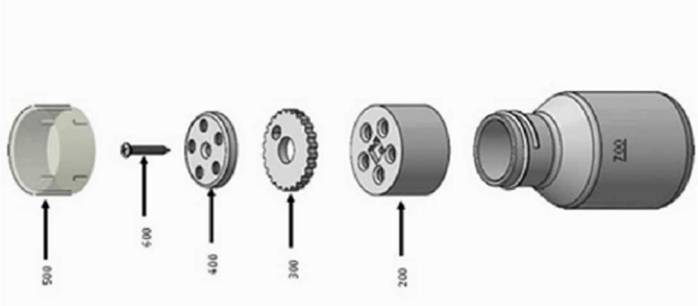
- a load-bearing element consisting of a disc with a contact surface surrounding the wall that limits its thickness; a central perforation for coupling and a loading hole arranged on its surface, which houses an ODT tablet coming from the conduction element;

- an output element consisting of a disc that comprises in its center an assembly means that projects on the lower surface of the output element forming a single body; at least one exit hole arranged on its surface;

- a fastening means that assembles a dosing mechanism consisting of the coupling of the assembly means of the output element that passes through the loading element through its central perforation and fits inside the connecting means of the conduction element, where the loading element load is the only element that rotates with respect to the axis delimited by the assembly means of the output element;

- wherein an ODT tablet moves through a conduction orifice of the conduction element, through the loading orifice of the loading element to an exit orifice of the output element.

Figure



EXAM ANALYSIS

That in the present case, claims 1 to 16 included in the filing under No. NC2019/0013242 on November 26, 2019, meet the requirements established in Articles 14 and 85 of Decision 486, since they refer to a orodispersible tablet dispensing cap, which differs from the closest state of the art, US4460106, in that the above does not mention at least one conical hole arranged in a cylindrical conduction element and a fastening means that assembles a dosing mechanism consisting of the coupling of the assembly means of the output element that passes through the loading element through its

central perforation and fits inside the connecting means of the conduction element. As a consequence, it has been defined that the material in said claims provides the technical advantage of guiding the tablets out of the container without fragmenting or causing damage to them; and providing an assembly between a cylindrical driving element and the output element in such a way that the holes of these two elements are not aligned, so that the tablets can fall one by one and at the same time the rotation of the loading element is allowed. . In addition to the above, the claimed material is susceptible to industrial application.

OBSERVATIONS: The technical advantage of guiding the tablets out of the container without fragmenting or causing damage to them

Example No. 3
Example of conversion of utility model patent to invention patent
Country - Colombia
Application - NC2020/0013160
Title - VACUUM ACCELERATOR SYSTEM APPLIED TO A STERILIZATION EQUIPMENT

SUMMARY
The present invention patent refers to a method (M) and a vacuum accelerator system (S) applied to sterilization equipment, which is used in hospitals, industries, laboratories, among other locations that require the sterilization process. The vacuum accelerator system (S), provided with a chamber (CE), comprises at least one vacuum pump (B), at least one atmospheric ejector (E), at least one valve (V) for controlling the inlet flow of air in the aforementioned atmospheric ejector (E) and at least one air filter (F) to retain impurities. The method (M) and the vacuum accelerator system (S) reduce the condensate inside the sterilization chamber and on the materials during the conditioning and drying phases, in addition to improving the air dilution inside the sterilization chamber (CE). In addition, this method (M) and vacuum accelerator system (S) allow the reduction of the total time of the sterilization cycle.

Claim 1
New claim 1
Vacuum accelerator system (S) linked to sterilization equipment

provided with a sterilization chamber, characterized by the fact that the vacuum accelerator system (S) is formed by vacuum pumps (B), atmospheric ejectors (E), valves (V) air flow inlet control in the aforementioned atmospheric ejectors (E) and air filters (F) for retaining impurities;
each vacuum pump (B) is connected to an atmospheric ejector (E); each said atmospheric ejector (E) is connected with valves (V) for controlling the air flow inlet and each said valve (V) connected with an air filter (F) for retaining impurities.

Figure

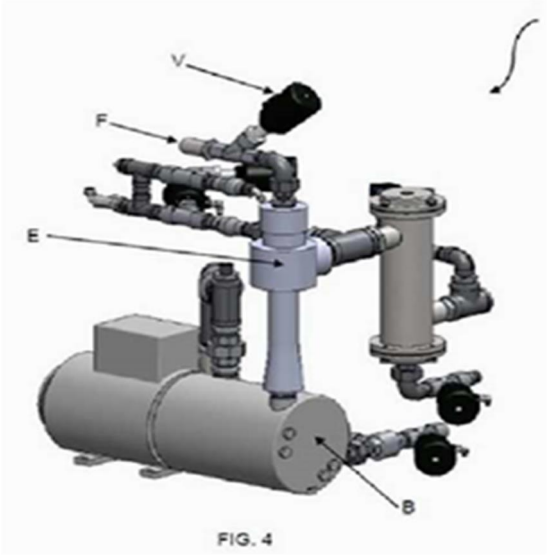


FIG. 4

EXAM ANALYSIS

1. Utility models are not considered (Article 82 Decision 486) Claim 1 corresponds to a system, which is not subject to protection via Utility Model, this fact was informed from the first substantive requirement that was transferred to the applicant.

2. Utility models are not considered (Article 82 Decision 486) Claims 2 to 3 refer to a “method”, which cannot be protected by the utility model modality. Methods can only be protected by invention patents.

OBSERVATIONS: The applicant kindly requested the conversion of the present utility model application so that it is considered an application for a patent for invention, since the method is protected by that appropriate modality.

Example No. 4
Utility Model Example
Country - Ecuador
Application - ECSMU19073661

Title -DEVICE FOR REDUCING POLLUTING GASES EMISSIONS BY CATALYTIC MANAGEMENT IN THE COMBUSTION PROCESS

SUMMARY

Device for reducing emissions of polluting gases by catalytic management in the combustion process characterized in that it comprises a hollow cylindrical shape with a hole for fuel outlet on the other side of said cylindrical shape, a cylindrical perforated separator inside it and with a sheet composed of at least one magnetic element, located between said perforated separator and the inner wall of the hollow cylindrical shape, so that, when the fuel flows through the interior of said device Part of the hydrocarbon components become magnetized.

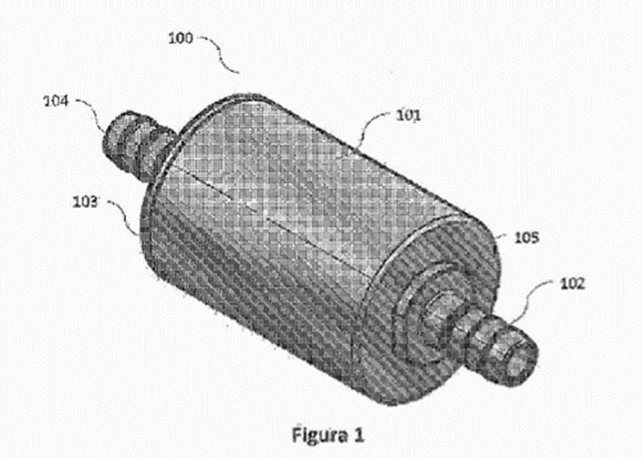


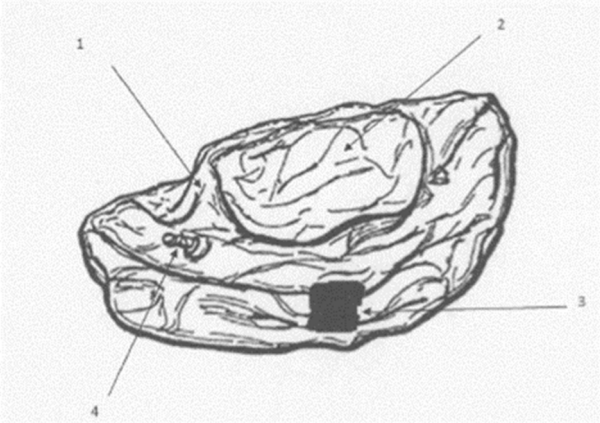
Figura 1

Example No. 5
Utility Model Example
Country - Peru
Application - 002690-2019/DIN
Title - PORTABLE INFLATABLE TOILET WITH AN AUTOMATIC INFLATION DEVICE

SUMMARY

The present invention is about a portable inflatable toilet consisting of a flexible body (1) with a preformed cavity (2) where a user's waste is contained, an automatic inflation device

(3) coupled to the body of the toilet (1) and an air leak valve (4) attached to the body of the toilet (1) for air leakage when storage is required. The portable inflatable toilet of this invention does not require additional devices to be able to



inflate it instantly and offers high portability in any bag, backpack or purse, taking up minimal space.

6. EXAMPLES OF GENETIC RESOURCES

Verification Process Example and Suggestions

PROCESS:

Step 1: Determine whether the invention patent application corresponds to the chemical, pharmaceutical or biotechnology areas. Optionally, as long as the application has its classification available, it is suggested that special emphasis be placed on identifying applications included in the following classifications of the International Patent Classification (IPC):

TABLE 1	
A01H1*	A01H4*
A01K67*	A01N63*
A23L1*	A23L2*
A61K8*	A61K31*
A61K35*	A61K48*
A61Q19*	C12N1*
C12N5*	C12N7*
C12Q1*	C07H21*
C12P1*	C12P19*
C12N15*	C07K2*

Step 2: If the applicant stated in the means of identification that he obtained or developed the products or procedures, for which the patent is requested, from GRs. or its derivative products, and/or, where applicable, attached to the application a copy of an access contract, the examiner will verify that said contract has been concluded between the applicant and any of the ANCs mentioned in Section 5 of this Annex. corresponding to the country of origin of the genetic resource.

If the applicant stated in the means of identification that he obtained or developed the products or procedures, for which the patent is requested, from GRs. or its derivative products, but the document has not been presented, the examiner will require the applicant to present it as established in Article 26, subsection h), within the period indicated in Article 39 of Decision 486.

If the applicant did not state in the means of identification that it obtained or developed the products or procedures from GRs. or its derivative products, or the application or request does not include such means, the national office competent in IP matters will verify ex officio whether the presentation of said document is necessary.

Step 3: Identify the existence of a GR access contract. corresponding to the same patent applicant and the same resource, through direct access to the contract databases published by each ANC, after intergovernmental consultation with the ANC, or is evidenced in the description of the invention. Likewise, the existence of the contract can be checked through the Internationally Recognized Certificate of Compliance (IRCC) of the Access and Benefit Sharing Clearinghouse (ABSCH). If there is a contract, then the examiner will require the applicant to present a copy of the access contract as established in Article 26, subsection h), within the period indicated in Article 39 of Decision 486.

Step 4: Identify one or more GRs. corresponding to organisms or microorganisms of native species of the Member Countries of the Andean Community, through direct access to the databases of organisms or microorganisms of native species, with special

emphasis on endemic species, of each ANC or after intergovernmental consultation with the ANC (if possible, support or assistance from the NCA expert may be requested), or is evident in the description of the invention. If at least one GR is identified. native, then the examiner will continue with the analysis of the next step.

Step 5: Determine if the invention has been obtained or developed from genetic resources or their derived products, considering the definitions established in Decision 391 of 1996 - Common Regime on Access to Genetic Resources.

In this step, each Member Country can establish collaboration and review mechanisms between the examiners of the formal examination and the technical examiners of the substantive examination, in order to clarify whether the technical subject matter of the invention has been developed from GRs. . or derived products that originate from any of the Member Countries of the Andean Community.

Examples of collaboration and review mechanisms

- Initial admissibility filter by the technical background examiner of the application
- Consultation or support from the background technical examiner
- Report to the person in charge of reviewing those cases

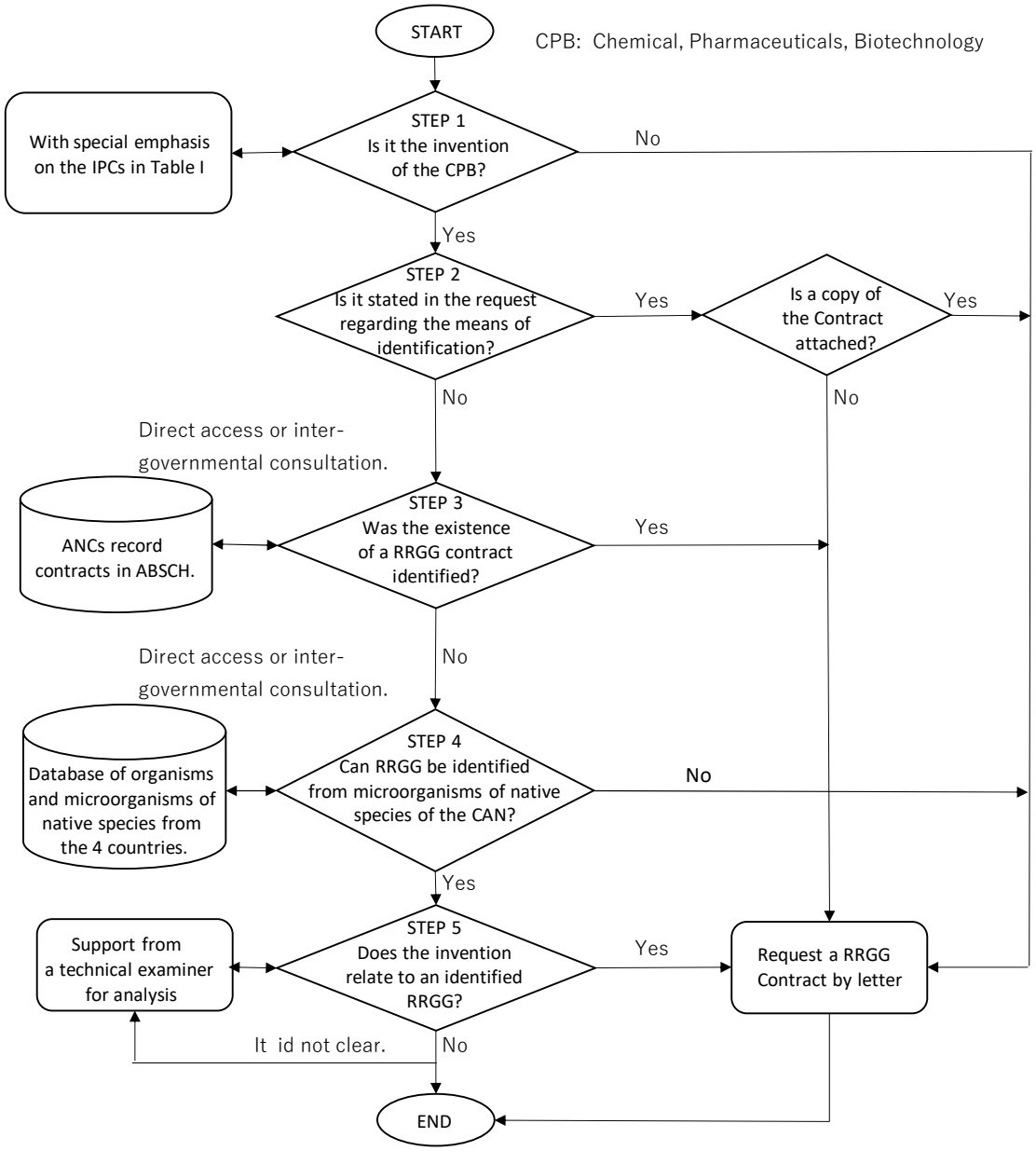
Each CAN Member Country may, in accordance with its national practice and legislation, adopt deferral measures contemplated within its local legislation, in order not to negatively affect the patent application due to the requirement of the GR access contract.

Examples of postponement measures

- Suspension of processing of the invention patent application
- Partial acceptance of the provision of proof of initiation of the access contract process, provided that the applicant expresses an express commitment to provide a copy of the contract once obtained from the ANC.

A communication from the ANC indicating that the access contract is not necessary because it does not fall within the activities of step 5 or because these are activities that do not constitute access to GRs will also be acceptable.

Diagram:



SUGGESTIONS:

- The access contract requirement should not become an excessive burden for the applicant
- The means of identification in the application or request format can facilitate the identification of the cases in which it is required.
- The process to identify the need to present the access contract during the formal examination can be carried out with support from the technical area.

- The form examiner is not qualified to analyze the activities of step 5 of the verification process, so he must carry out this evaluation with the support of the technical area through one of the collaboration and review mechanisms.
- Postponement measures may facilitate or lighten the burden of an applicant seeking compliance with these regulations in good faith.
- In the case of requirements related to GRs for countries outside the CAN, for example, in compliance with the Nagoya protocol for the countries that apply, it must be taken into account that the disclosure of origin may come in the form of one of the following levels:
- mention or identification of the origin of the genetic resource,
- copy of the GR access contract. and
- profit sharing test
- In the event that the GR. is associated with TK, then the respective license or authorization of use must also be presented, in accordance with Article 26, subsection i) of Decision 486.

Example No. 1
Example of a patent application in which the GR access contract was requested.
Country – Colombia
Application - NC2018/0006715
Title - PROCESS FOR THE INDUCTION OF ANTIMICROBIAL ACTIVITY IN ENDOSPORE-FORMING AEROBIC BACTERIA
International Patent Classification - C12P 1/04, A01N 63/02, A61K 35/74

TECHNICAL FIELD
The present invention belongs to the area of biotechnology, particularly to the fermentation processes to obtain antimicrobial activity from microorganisms belonging to the group of Aerobic Endospore-Forming Bacteria (BAFEs), of the families Bacillaceae and Paenibacillaceae, under the presence of an inducer in the culture medium.

Claim 1
1) A method to obtain active compounds from microorganisms of the Bacillaceae and/or Paenibacillaceae families that comprises a

fermentation in a suitable culture medium containing at least one inducing agent and to extract said active compounds.

FORM REQUIREMENT

Copy of contract for access to genetic resources (Article 26 D 486, literal h)

The descriptive chapter mentions the use of microorganisms isolated from commercial banana and plantain crops located in the Urabá region (Colombia) and that the applicants have permit No. 89 issued by the Ministry of Environment to access the genetic resource. Since it is understood that said permit corresponds to the contract for access to genetic resources, it is requested to contribute it to this procedure, in accordance with the provisions of Article 26, literal h) of Decision 486.

RELEVANT TEXT

Page 11, lines 7 to 18

The strains of BAFEs in which the phenomenon described in the present invention was initially observed, belong to a collection of microorganisms registered with collection number 191 of the Von Humboldt Institute established by the EAFIT University and the CENIBANANO research center of AUGURA (Association of Colombian Banana Producers). Most of them belong to the genus Bacillus sp. and Paenibacillus sp. This collection of microorganisms has permit No. 89 to access the genetic resource, issued by the competent authority in Colombia (MINAMBIENTE), which allows both institutions (EAFIT University and AUGURA) to manage the genetic resources included in said microorganisms for purposes of investigation. These microorganisms were isolated from the phyllosphere and rhizosphere of commercial banana and plantain crops, in plantations located in the Urabá region, Colombia.

OBSERVATIONS: Although the applicant did not declare access in the initial request, the examiner identified the paragraph that explicitly mentions the existence of a permit issued by the Competent National Authority in the description.

From what is disclosed in the description, it is verified that the invention performs activity ii. “isolation of one or several molecules produced by the metabolism of an organism”, namely,

active compounds from native microorganisms of the families Bacillaceae and/or Paenibacillaceae.

Example No. 2
Example of a patent application in which the GR access contract was requested.
Country – Colombia
Application – NC2018/0006369
Title - VIRUS-BASED PESTICIDES
International Patent Classification - A01N 63/00, C12N 7/00

SUMMARY
The invention relates to synthetic mixtures of two or more pure genotypes cloned from the Colombian field isolation of the Spodoptera frugiperda nucleopolyhedrovirus (NPV003=SfCOL) and to biopesticide compositions whose active ingredient comprises at least two synthetic mixtures and optionally a S. frugiperda granulovirus VG008 . The compositions of the invention may include ultraviolet protectants, diluents, coating polymers, surfactants and/or pH regulators and are effective for the biological control of insects in crops such as corn, rice, cotton, sugar cane and grasses.

Claim 1
1) A synthetic mixture of two or more genotypes cloned from insect pathogenic nucleopolyhedroviruses.

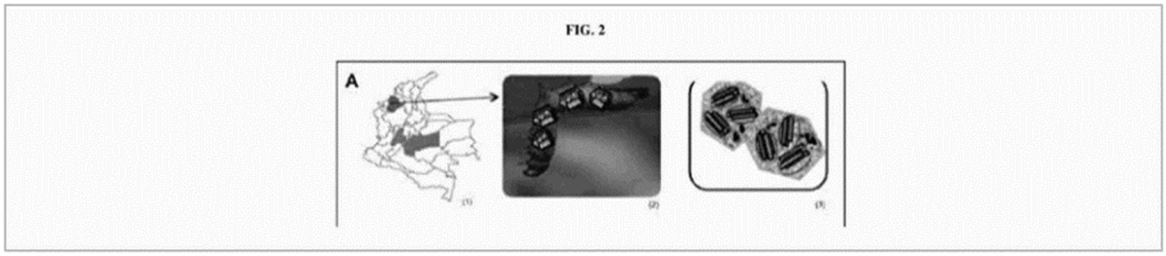
FORM REQUIREMENT
Copy of contract for access to genetic resources (Article 26 D 486, literal h)

In accordance with Article 26, literal h) of Decision 486, the patent application must contain, among other elements, a copy of the access contract when the products or procedures have been obtained or developed from genetic resources or their derived products. of which any of the member countries is a country of origin. In the present application it is observed that the development of the invention involves synthetic mixtures of two or more genotypes cloned from Spodoptera frugiperda nucleopolyhedrovirus and that said genotypes were obtained from pasture crop larvae from the Department of Córdoba (Colombia).

from which the Spodoptera frugiperda nucleopolyhedroviruses were isolated. Therefore, it is necessary that you provide the corresponding access contract. Otherwise, you must provide communication from the Competent National Authority of the corresponding Member Country in the sense that said activity does not constitute access to the genetic resource or its derived products.

RELEVANT TEXT

Example 1. Obtaining Genotypes. A Spodoptera frugiperda nucleopolyhedrovirus (NPV003) and a Spodoptera frugiperda granulovirus (VG008) were isolated from larvae of a pasture crop in the Department of Córdoba (Colombia) (Gómez et al., 2010). Purified polyhedra containing various genotypes naturally were obtained from the NPV003 nucleopolyhedrovirus.



COMMENTS: Although the applicant did not declare access in the initial request, the examiner identified example 1 that explicitly mentions the site of the larval pasture culture from which the GRs were isolated. of a nucleopolyhedrovirus and a granulovirus. It is verified that the invention performs activity i. "Separation of DNA and/or RNA" to obtain a synthetic mixture of two or more genotypes cloned from insect pathogenic nucleopolyhedroviruses.

Example No. 3
Example of a patent application in which the GR access contract was requested.
Country - Colombia
Application – NC2017/0012683
Title - PROCEDURE FOR OBTAINING LOW CALORIE SWEETENERS
International Patent Classification - A23L 1/22, A23L 2/60

SUMMARY

The present invention refers to a process for obtaining a low-

calorie sweetener from Smallanthus sonchifolius. The process includes the stages of conditioning the Smallanthus sonchifolius tubers; obtaining an extract of Smallanthus sonchifolius by liquefying the tuber in water and subsequent filtration recovering the liquid extract; fermentation of liquid extract of Smallanthus sonchifolius; and, conservation of the non-caloric sweetener. The process according to the invention results in a low-calorie sweetener suitable for human consumption, especially for people with restrictions in the consumption of carbohydrates and simple sugars, such as patients with diabetes and overweight, among others. Likewise, the process constitutes an alternative to chemical synthesis in the supply of non-caloric or low-calorie sweeteners.

Claim 1

1. A process for obtaining a sweetener with low caloric intake that includes the stages of conditioning the roots of Smallanthus sonchifolius, obtaining the extract of Smallanthus sonchifolius and fermentation of the extract obtained.

FORM REQUIREMENT

Copy of contract for access to genetic resources (Article 26 D 486, literal h)

In accordance with Article 26, literal h) of Decision 486, the patent application must contain, among other elements, a copy of the access contract when the products or procedures have been obtained or developed from genetic resources or their derived products. of which any of the member countries is a country of origin.

In the present application it is observed that the development of the invention involves access to derived products and taking into account that Smallanthus sonchifolius is native to Colombia and is distributed to Bolivia, being native to several CAN countries, it is necessary to provide the corresponding access contract. Otherwise, you must provide communication from the Competent National Authority of the corresponding Member Country in the sense that said activity does not constitute access to the genetic resource or its derived products.

RELEVANT TEXT

The present invention refers to a process for obtaining a low-calorie sweetener from Smallanthus sonchifolius. The process includes the stages of conditioning the Smallanthus sonchifolius tubers by selecting, washing, disinfecting and peeling them; obtaining an extract of Smallanthus sonchifolius by blanching and liquefying the tuber in water and subsequent filtration recovering the liquid extract; and the fermentation of the liquid extract of Smallanthus sonchifolius with microorganisms selected from Lactococcus lactis, Lactobacillus lactis, Lactobacillus fermentum, Sterptococcus lactis, among others and mixtures thereof.

OBSERVATIONS: Although the applicant did not declare access in the initial request, the examiner identified the species of Smallanthus sonchifolius about which the invention deals and also cross-checked the information about where said species is native, finding that it belonged to at least one of the CAN countries. However, it is proven that the invention involves activity iii. "isolates one or several molecules produced by the metabolism of organisms and microorganisms of native species", namely, in this case the invention involves a sweetener with low caloric intake obtained from the extract of Smallanthus sonchifolius and its fermentation.

Example No. 4
Example of a patent application in which the GR access contract was requested and was not submitted.
Country - Colombia
Application – NC2018/0006405

Title - FORMULATION WITH INSECT REPELLENT ACTION FOR SURFACE PROTECTION
International Patent Classification - A01N 53/00, C09D 5/14, A01N 65/00, A01N 65/26, A01N 65/44

SUMMARY

The patent describes the composition of a set of formulations based on synthetic active ingredients and potentially natural additives that provide repellent action against flying insects such as mosquitoes, flies and gnats, as well as crawling insects

such as cockroaches and ants. Test results are presented that prove the effectiveness of the products for the applications for which they are intended.

Claim 1

1. Formulation of a synthetic repellent additive, stabilized to allow its application in formulations of aqueous solvent-based coatings, laminated wood products and paper for surface coatings, CHARACTERIZED BECAUSE it contains 40 to 70% by weight of the additives permethrin and /or cypermethrin, 5 to 15% by weight of propylene glycol and/or dipropylene glycol, 5 to 20% by weight of hydrogenated castor oil, 1 to 10% by weight of propoxylated ethoxylated alcohol and 10 to 25% by weight of calcium dodecylbenzenesulfonate and/or polyethylenepolypropylene monobutyl glycol ether.

FORM REQUIREMENT

Copy of contract for access to genetic resources (Article 26 D 486, literal h)

In the present application it is observed that the development of the invention involves the formulation with insect repellent action for surface protection which includes andiroba vegetable oils, where its scientific name is Carapa guianensis, and taking into account that this species is native to the countries of the Andean Community, therefore, it is necessary to submit the corresponding access contract.

RELEVANT TEXT

The composition comprises the following components: permethrin or cypermethrin, glycol, hydrogenated castor oil and/or citronella essential oil, ethoxylated/propoxylated alcohol, anionic surfactants, notably calcium dodecylbenzenesulfonate and/or polyethylene-polypropylene monobutyl glycol ether.

APPLICANT'S RESPONSE

The invention has not been developed from genetic resources or their derived products originating in any of the member countries of the Andean Community, nor does it constitute access to the genetic resource or its derivatives originating in the Andean Community. INPI (BR) Certification on Negative Declaration of

Access and commercial invoice for the purchase of andiroba oil that is commercially distributed in Brazil is presented.

OBSERVATIONS: Although the applicant did not declare the copy of the access contract in the initial request, the examiner identified the species of Carapa guianensis about which the invention deals. However, the applicant argued in its response to the requirement that said species was not native to the CAN countries.

Example No. 5
Example of a patent application that requires the presentation of the GR access contract.
Country - Peru
Application – PE 001854-2013/DIN
Applicant: Sainz Prestel, Valeria Lucila (Spain)

Title - USE OF A PLANT EXTRACT AS AN ACTIVE INGREDIENT FOR THE PREPARATION OF A PRODUCT WITH PHARMACOLOGICAL ACTIVITY FOR THE TREATMENT OF TISSUE INJURIES AND PROCEDURE FOR OBTAINING THE EXTRACT
International Patent Classification -A61K 36/60; A61P 19/00; A61P 04/19

TECHNICAL FIELD
The invention is related to the area of medicine, more specifically with the treatment of infectious, traumatic processes and tissue injuries in general.

Claim 1
Use of the resin extract of the Ficus pertusa L. f and/or Ficus eximia Schott tree as an active ingredient for the preparation of a pharmacologically active product for the treatment of acute and/or chronic tissue injuries, both of bone tissue and soft tissues.

FORM REQUIREMENT
Resources: Ficus pertusa L. and Ficus eximia Schott, native to Peru.
Administration and execution entity:
NATIONAL INSTITUTE OF AGRICULTURAL INNOVATION

Based on Art. 26 literal h) of Decision 486, the Directorate of Inventions and New Technologies required the applicant to present a copy of the access contract to the RRGG because the invention refers to the resin extract of the Ficus pertusa L tree. f and/or Ficus eximia Schott as an active ingredient for the preparation of a pharmacologically active product. However, the file was declared abandoned due to failure to comply with the presentation of the transfer and power of attorney documents.

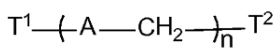
OBSERVATIONS: Although the applicant did not present a copy of the access contract to the GRRR at the time of submitting the patent application, from the descriptive report and claims the examiner identified that the invention refers to a plant extract of Ficus pertusa L. and Ficus eximia Schott, species native to Peru, which make up a pharmaceutical formulation.

Example No. 6
Example of a patent application that requires the presentation of the GR access contract.
Country - Colombia
Application – PE 002425-2015/DIN
Applicant: ECOFLORA SAS (Colombia)
Title - DYE COMPOUNDS DERIVED FROM GENIPINE OR MATERIALS CONTAINING GENIPINE
International Patent Classification - C09B 04/23; C09B 67/22; C09B 67/54

TECHNICAL FIELD
The present disclosure relates to coloring compounds isolated from a reaction of Genipa Americana juice, genipin or genipin analogues and an amine, compositions comprising the same and methods for preparing and using them.

CLAIMS

1. A colorant composition comprising a polymer of formula 4:



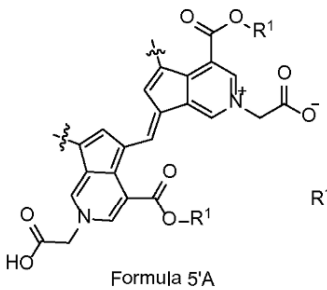
Formula 4

,

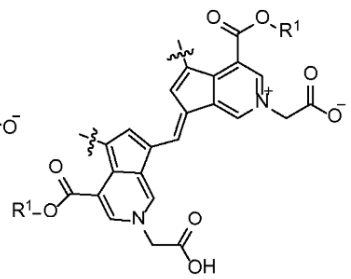
a geometric isomer thereof, a tautomer thereof, or a salt thereof,

wherein n is an integer from 2 to 20;

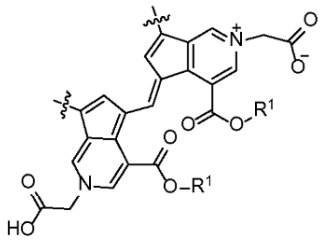
wherein each A is independently selected from the group consisting of formula 5'A, formula 5'B, formula 5'C, a geometric isomer thereof, a tautomer thereof, a salt thereof, and a combination thereof:



Formula 5'A



Formula 5'B



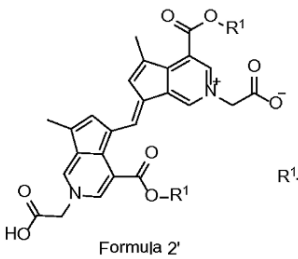
Formula 5'C

wherein:

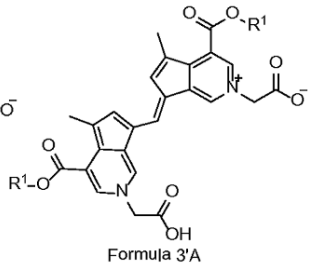
R^1 is hydrogen, methyl, ethyl, propyl, isopropyl, butyl, sec-butyl, isobutyl, or tert-butyl;

and wherein T^1 is hydrogen or a methyl group; and T^2 is hydrogen or A-T^1, wherein A and T^1 are defined above;

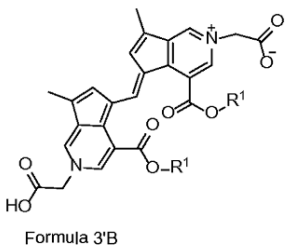
wherein the colorant composition is substantially free of a first additional compound selected from the group consisting of formula 2', formula 3'A, formula 3'B, a geometric isomer thereof, a tautomer thereof, and a salt thereof:



Formula 2'



Formula 3'A



Formula 3'B

.

FORM REQUIREMENT

Resources: Genipa Americana (Central and South American distribution)

Entity: Ministry of the Environment and Sustainable Development of Colombia

Based on Art. 26 literal h) of Decision 486, the Directorate of Inventions and New Technologies required the applicant to present a copy of the access contract to the RRGG given that the invention is related to the blue dyes extracted from Genipa Americana. The invention provides knowledge of the molecular structures of the blue pigment material derived from the reaction of genipin with an amino acid, so as to provide substantially purified dyes (such as polymers) and methods of isolation of dye compounds.

The applicant presented the access contract to the genetic resource issued by Resolution No. 2107 of December 22, 2014 issued by the Directorate of Forests, Biodiversity and Ecosystem Services of the Ministry of the Environment and Sustainable Development of Colombia, in which it is resolved to grant the company ECOFLORA SAS access to Genetic Resources and their derivatives for commercial purposes for the execution of the project "Commercialization of the pulp of the Genipa Americana species to obtain a dye."

OBSERVATIONS: Although the applicant did not present a copy of the access contract to the GRRR at the time of submitting the patent application, from the descriptive memory and claims the examiner identified that the invention is related to the blue dye of Genipa Americana, a species native to Central and South American countries.

Example No. 7
Example of a patent application that does not require a GR access contract.
Country - Peru
Application – PE 000953-2020/DIN
Applicant: Scientific University of the South SAC (Peru)

Title - CHONDRACANTHUS CHAMISSOI CULTIVATION SYSTEM AND METHOD FROM SPORES
International Patent Classification - A01G 33/00

TECHNICAL FIELD
The present invention relates to a system and method for cultivating algae. The system allows the production of algae seeds from spores,

which are conditioned in tanks that are provided with a recirculation system for the fixation of said algae spores and a method that incorporates the use of said system for the cultivation of algae in the sea. The invention allows large quantities of algae to be obtained for subsequent use in other industries and/or marketing for direct consumption.

CLAIM 1

Chondracanthus chamissoi seed production system, characterized in that said system comprises:

A bookshelf; and a spore inoculation system; wherein said spore inoculation system comprises:

- A series of tanks, in these tanks the settlement and germination processes of C. chamissoi spores begin.
- A series of racks
- A timed lighting system
- A recirculation system
- A series of distribution systems
- A longer side tube
- A series of lateral pipes

Claim 7

A method of cultivation of Chondracanthus chamissoi characterized by:

a) Receive the biological material, which includes red algae Chondracanthus chamissoi.
b) Select and clean the reproductive seedlings of the red alga Chondracanthus chamissoi.
c) Induce the reproductive seedlings of the red algae Chondracanthus chamissoi to sporulate and thus obtain the spore broth. This step is adapted to a treatment dependent, among other things, on temperature and light.
d) Inoculate the spore broth to artificial substrates (ropes) to a Chondracanthus chamissoi seed production system configured according to claim 1 to 6.
e) Monitor and control the growth of spores in the artificial substrates in said Chondracanthus chamissoi seed production system of claim 1 to 6, which is based on recirculation technology.
f) Collect 1cm seedlings to be taken to the sea.

g) Transfer the Chondracanthus chamissoi seedlings to the incubation system at sea, by floating buoy or suspended culture.
h) Harvest the thalli of the red algae Chondracanthus chamissoi by pruning; in the fifth week, the entire seedling is changed.

FORM REQUIREMENT

Resource: Chondracanthus chamissoi-Peruvian coast.
Administration and execution entity: Ministry of Production

Based on Art. 26 literal h) of Decision 486, the Directorate of Inventions and New Technologies required the applicant to present a copy of the access contract to the RRGG because the invention refers to a system and method of cultivating algae from of Chondracanthus chamissoi spores. However, through Official Letter No. 00001110-2020-PRODUCE-DGAAMPA of the General Directorate of Environmental, Fisheries and Aquaculture Affairs of the Ministry of Production, it was determined that the signing of the access contract for the "CHONDRACANTHUS CHAMISSOI" is not necessary, as long as there is no access to the genetic resource.

Example No. 8
Example of a patent application that does not require a GR access contract.
Country - Peru
Application – PE 002053-2020/DIN
Applicant: National University of the Altiplano Puno (Peru)

Title - CEREAL BARS ENRICHED WITH MICROENCAPSULATED IRON FOR THE PREVENTION OF ANEMIA

International Patent Classification - A23L 11/00

TECHNICAL FIELD

The present invention corresponds to the technical field of the food industries. It includes the formulation and processing to obtain a bar enriched with quinoa, kiwicha and cañihua pop and mainly microencapsulated iron. Product for consumption by all and for the reduction of anemia in the vulnerable population (children under 5 years of age and women) and is easy to consume.

Claim 1

1. A procedure for the production of cereal bars enriched with microencapsulated iron for the prevention of anemia, characterized in that it comprises the following stages:

a) melt and dissolve bee honey in a stainless steel container under heating in an isothermal bath and constant stirring with a proportion of 40% by weight with respect to the total of the final product;
b) periodic control of the content of soluble solids until a concentration of 78° Brix is obtained, forming a binding syrup;
c) In parallel, a mixture of 20% quinoa pop (Chenopodium quinoa), 10% cañihua pop (Chenopodium pallidicaule), 15% kiwicha pop (Amaranthus caudatus Linnaeus), 5% peanuts, 5% raisins, 3% chestnuts, and 2% grated coconut, where the percentages indicate the proportion with respect to the total weight of the final product, obtaining a mixture of solid ingredients;
d) add the mixture of solid ingredients to the binder syrup at a temperature between 80-82 °C;
e) homogenization for 1 minute;
f) pouring the homogenized mass into a stainless steel mold shaped like a parallelepiped bar up to the middle of the mold,
g) addition of microencapsulated iron by solid dispersion for its uniform distribution.
h) pouring the homogenized mass until the stainless steel mold is complete.
i) uniform rolling of the mold to compact with a stainless steel cylinder.
j) drying the mold with the cereal bar at room temperature.
k) unmolding, packaging the bars with cellophane paper and sealing.

FORM REQUIREMENT

Resources: Chenopodium pallidicaule (cañihua), Chenopodium quinoa (quinoa) and Amaranthus caudatus (Kiwicha) native to Peru

Since it involved the use of a biological resource, it was not necessary to request a copy of the access contract.

OBSERVATIONS: The Directorate of Inventions and New Technologies of INDECOPI evaluated the use of resources in the aforementioned invention. It was observed that there is no use of the genetic

resource or its derived products when whole grains of quinoa, cañihua and kiwicha are used for the production of cereal bars.
*Decision 391: BIOLOGICAL RESOURCES, individuals, organisms or parts thereof, populations or any biotic component of real or potential value or utility contained in the genetic resource or its derived products.