

# Annotation guidelines

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## INTRODUCTION

This annotation aims at identifying the semantic content of each sentence in a utility patent description. A set of 16 labels should be assigned to each sentence of the document. This annotation allows to build a dataset for training a sentence tagging model. The latter, if conducted on a large scale, would allow us to perform a stylometric analysis on the patent drafting and eventually extract useful information for the enrichment of the patent corpus.

Generally, a patent description is organised in 5 sections :

1. **Field of the invention** : specify the technical field to which the invention relates.
2. **Background** : indicate the background art which, as far as is known to the applicant, can be regarded as useful to understand the invention.
3. **Summary** : disclose the invention, as claimed, in such terms that the technical problem, even if not expressly stated as such, and its solution can be understood, and state any advantageous effects of the invention with reference to the background art.
4. **Description of drawings** : briefly describe the figures in the drawings, if any;
5. **Detailed description of the invention** : describe in detail at least one way of carrying out the invention claimed, using examples where appropriate and referring to the drawings, if any; indicate explicitly, when it is not obvious from the description or nature of the invention, the way in which the invention is industrially applicable.

## GENERAL RULES

1. Each sentence receives a **SINGLE** label.
2. Refer to the context to determine the label of the sentence if it's ambiguous.

### Example :

Without considering the first sentence, it is difficult to understand what the second sentence is about because we do not know who "its" refers to. With the context, we can see that the first sentence define "Droxidopa" and the next sentence completes this definition. Both of them should therefore be annotated as **DEFINITION** :

*Droxidopa is a synthetic amino acid analog that is directly metabolized to norepinephrine by dopadecarboxylase, which is extensively distributed throughout the body.*

*Its chemical preparation generally involves a multi-step synthesis.*

3. Refer to the original claims to find the rephrased claims in the description (useful for the label “**REPHRASED CLAIM**”).

## LABELS



### PATENT TITLE

The patent title, consistently positioned at the start and in uppercase letters, concisely summarizes the invention to be protected.

**Example :**

1. *SHOVEL, SHOVEL CONTROL METHOD, AND MOBILE INFORMATION TERMINAL*



### SECTION TITLE

The title of each section of the patent description, indicating the content of the section.

SECTION TITLE only includes titles for the five common patent sections.

**Examples :**

1. *TECHNICAL FIELD*
2. *BACKGROUND / BACKGROUND ART / PRIOR ART*
3. *SUMMARY / DISCLOSURE OF INVENTION*
4. *DESCRIPTION OF EMBODIMENTS / DETAILED DESCRIPTION*
5. *BRIEF DESCRIPTION OF THE DRAWINGS / DRAWINGS*



### SECTION SUBTITLE

Each section of a patent description sometimes contains sub-sections, the titles of which are annotated as SECTION SUBTITLE.

**Examples :**

1. *CITATION LIST*
2. *TECHNICAL PROBLEM*
3. *Stability studies*
4. *release studies*



### TECHNICAL FIELD

Sentences determinate the technical scope of the invention. These sentences specify to which field the invention relates and are usually carried out in one single paragraph. They could be found in an individual section named "Field of the Invention" which ONLY appears at the beginning of the patent description.

**Cue phrase :**

The present invention / The present solution / Embodiments described herein relates to / is directed to / is concerned with ...

**Examples :**

1. **The present invention relates to** a structure for disposing a speaker in a vehicle.
2. **This application relates to** the field of electronic materials and component technologies, and in particular, to an embedded substrate and a method for manufacturing an embedded substrate.



## REFERENCE

Sentences introducing the state-of-the-art or present the context to reach the invention. Sentences contains following informations should be annotated as REFERENCE :

- Citation to another patent by country and patent number.
- Citation to books by author, title, publisher, edition, place and year of publication and page numbers.
- Citation to periodicals by title, year, issue and page numbers.
- Reference to previous techniques or general knowledge.

**Cue phrase :**

Collocates such as are known which, it is also known, or commonly known as...

According to prior arts / This application claims priority to / There is a known XXX ...

**Examples :**

1. The whole sentence give a reference :

*PATENT DOCUMENT 1: Japanese Unexamined Patent Publication (Japanese Translation of PCT Application) No. 2015-530952 → **REFERENCE***

2. Reference to another patent :

*In Patent Document 1, the acoustic transducer is disposed in the fender located near a front corner of a vehicle cabin, and sound is reproduced from the vicinity of the front corner toward the vehicle cabin. → **REFERENCE***

3. Reference to prior arts :

*In an existing production process, the embedded component packaging is usually implemented by using drilling and plating processes. → **REFERENCE***

*Epitaxial growth is a popular method of creating a crystalline region on a semiconductor substrate. → **REFERENCE***

*Heretofore, there has been known a technique of, in a situation where the behavior of a vehicle becomes unstable due to road wheel slip or the like, controlling the vehicle behavior to enable a safe traveling (e.g., an antiskid brake device). → **REFERENCE***

4. Claim patent priority :

*The present specification claims priority to and the benefit of Korean Patent Application No. 10-2017-0025672 filed in the Korean Intellectual Property Office on February 27, 2017, the entire contents of which are incorporated herein by reference.* → **REFERENCE**

5. In the background section, present a common knowledge supporting the purpose of the invention :

*It is important to ensure that the brake fluid in the brake system of a vehicle does not contain too much water.* → **REFERENCE**

#### Counter example :

1. When describing embodiment, especially in method patent, we could find sentences describing an existing element which can be used by the invention, this should be annotated as EMBODIMENT :

*sentence 1 : In one embodiment of the invention, the compound of formula (II) is preferably reduced to a compound of formula (III) using a chiral reducing agent, such as a reducing enzyme, preferably a ketoreductase (KRED) or a carbonyl reductase.* → **EMBODIMENT**

*sentence 2 : Preferably, the chiral reducing agent is a KRED.* → **EMBODIMENT**

*sentence 3 : KRED enzymes belonging to class EC 1.1.1.184 are useful for the synthesis of optically active alcohols from the corresponding pro-stereoisomerism ketone substrates and by stereospecific reduction of corresponding racemic ketone substrates.* → **EMBODIMENT**

Although the 3rd sentence provides an overview of KRED, which is an already existing element, this presentation serves to provide support for a possible implementation of the invention; therefore, it should be considered as an EMBODIMENT.

2. On the other hand, the following sentence should be considered as a REFERENCE because it provides a source that supports the statement : “*The KRED can be found in a wide range of bacteria and yeast*”

*The KRED can be found in a wide range of bacteria and yeast, for reviews: Kraus and Waldman, Enzyme' catalysis in organic synthesis, Vols. 1 and 2.VCH Weinheim 1995; Faber, K., Biotransformations in organic chemistry, 4th Ed. Springer, Berlin* → **REFERENCE**



#### REFERENCE\_PROBLEM

Sentences state the disadvantages of prior arts or indicate the technical problem that the invention is designed to solve. Sometimes we find an independent section named “technical problem”, otherwise these sentences mostly appear in the “background” section.

REFERENCE\_PROBLEM label has priority over REFERENCE. Thus, if a sentence mention a reference and point out its problem, it should be annotated as REFERENCE\_PROBLEM instead of REFERENCE.

#### Cue phrase :

Combinations with adversative conjunctions or with nouns, adverbs (simply, significantly, otherwise), adjectives (deficient, unusable, unacceptable) and verbs provide necessary hints to identify problems in the previous art.

#### Examples :

1. In the following example, the first sentence describe a structure presented by “Patent Document 1”, while the next sentence point out the shortage of this structure.

*In Patent Document 1, however, the speaker is disposed in the fender, which is a non-rigid body member.* → **REFERENCE**

*There is a fear in such a structure that the vibration of the sound reproduced by the speaker may cause noise from the vehicle body, even if the speaker is jointed to the frame of the fender. →*

**REFERENCE\_PROBLEM**

2. The following sentence explain a possible damage caused by the actual process, so it should be annotated as REFERENCE\_PROBLEM

*It can be learned that according to the existing embedded component packaging process, laser generated when the drill holes 104 are drilled damage the chip. →* **REFERENCE\_PROBLEM**



## REFERENCE\_ADVANTAGE

Contrary to the previous label, a sentence should be annotated as REFERENCE\_ADVANTAGE if it explains the advantage or quality of the cited technology. Although in most cases, only the limitations of the latter are mentioned, it may happen that its advantages are presented first before pointing out the limits.

REFERENCE\_ADVANTAGE label has priority over REFERENCE. Thus, if a sentence mention a reference and state its advantage, it should be annotated as REFERENCE\_ADVANTAGE instead of REFERENCE.

### Examples :

1. In the following example, the first two sentences describe a structure presented in "Patent Document 1"; on the other hand, the last sentence emphasizes the advantage that this structure may provide. These three sentences should receive the following labels:

*Patent Document 1 suggests a structure of a vehicle body whose fender is provided therein with an acoustic transducer as a speaker. →* **REFERENCE**

*In Patent Document 1, the acoustic transducer is disposed in the fender located near a front corner of a vehicle cabin, and sound is reproduced from the vicinity of the front corner toward the vehicle cabin. →* **REFERENCE**

*By employing such a structure, an improvement in the reproduction efficiency, of high-quality sound including a low range, with a wide range of directivity in a plan view, is expected. →* **REFERENCE\_ADVANTAGE**



## EMBODIMENT

Sentences mostly appear in the section “**detailed description of the invention**” (or similar) which describe at least one way of carrying out the invention. Embodiments can be considered as various implementation of the inventive objet, which could be a physical objet or not.

To determine whether a sentence should be considered as EMBODIMENT, one can:

1. Check if the sentence describes the invention that is the subject of the patent, if so;
2. Check if the sentence go into the details of one specific example, especially by referring to the figures, if not;
3. Check if the sentence better corresponds to the other labels, if not;

the sentence should be annotated as EMBODIMENT.

### Examples :

1. Give a possible example of the invention :

*The chip packaged in the foregoing structure may be a chip on which a pad has been disposed. →*

#### **EMBODIMENT**

*That is, a metal boss maybe disposed on each pad, and then embedded packaging (including drilling, conductive material filling, conductive layer disposing, and the like) is performed on the chip. →*

#### **EMBODIMENT**

*According to this configuration, the hinge pillar is located at the front corner of a vehicle cabin. →*

#### **EMBODIMENT**

2. Sometimes, to provide more detail on the implementation of the invention, particularly for invention of methods, additional information is provided about existing elements that can help in the realization of the invention. In this case, these descriptions should be considered as EMBODIMENT and not REFERENCE. In the example below, the third sentence provides information about "ketoreductase," an element that could be used to conduct the "enzymatic reduction" that is the subject of the invention, so it should be annotated as EMBODIMENT: :

*According to the preferred embodiment, the enzymatic reduction of the present invention can be carried out by the ketoreductase KRED® 130 and in the compound of formula (II) R3 is ethyl and R4 is tertbutylcarbamate. →* **REPHRASED CLAIM**

*Preferably, the ketoreductase is isolated. →* **EMBODIMENT**

*The ketoreductase can be separated from any host, such as mammals, filamentous fungi, yeasts, and bacteria. →* **EMBODIMENT**

3. Sentences describing the experiments or studies carried out to prove the feasibility or realisation of the invention should be annotated as EMBODIMENT. They could contain mathematical formulae, detailed steps of the experiments etc :

*In order to assess the ability of the systems obtained to release the incorporated drug, appropriate amounts of polymeric micelles of INU-C8 and INU-C8-PEG (15 mg) were dispersed in PBS, pH 7.4 (5 mL) and transferred in a floating dialysis membrane Spectra/Por with nominal cut off (MWCO) of 1 kDa. →*

#### **EMBODIMENT**

*The dialysis membranes containing the micelle dispersions loaded with drug and the drug alone were immersed in PBS at pH 7.4 (50 mL) and incubated at 37 °C for 24 hours under continuous stirring (100 rpm) in a Benchtop 808C Orbital Shaker incubator model 420. →* **EMBODIMENT**

*At scheduled time intervals, aliquots of external medium (1 mL) were taken from outside the dialysis membrane and replaced with an equal amount of fresh medium. →* **EMBODIMENT**

### Counter examples :

1. In the following sentence, the advantage of the embodiment is described instead of simply presenting the embodiment, so it should be annotated as INVENTION\_ADVANTAGE.

*Therefore, in an actual machining process of the embedded substrate provided in this embodiment of this application, there is no need to limit a hole diameter of the drill hole based on a pad size or a metal boss size. →* **INVENTION\_ADVANTAGE**

2. If the description of the invention allows for the visualization of its composition, or the interaction between its various component members, it should be annotated as FIGURE\_DESCRIPTION.

*A shovel PS includes a lower traveling body 1 on which an upper rotating body 3 is rotatably mounted via a rotation mechanism 2. →* **FIGURE DESCRIPTION**



## INVENTION\_ADVANTAGE

In the description of the invention, if a sentence provides the advantage, quality, or improvement brought about by the invention, it should be annotated as INVENTION\_ADVANTAGE and not EMBODIMENT.

### Examples :

1. Provide directly the improvement that can be brought about by the invention :

*The technique disclosed herein achieves both an improvement in the reproduction efficiency of the speaker and a reduction in the noise caused in the vehicle body by the sound generated by the speaker. →*

**INVENTION\_ADVANTAGE**

2. Sentences explaining the objective of the invention, the expected effect of the invention, or the necessity for an invention :

*It is an objective of the present disclosure to provide a structure for disposing a speaker in a vehicle, while achieving both an improvement in the reproduction efficiency of the speaker and a reduction in the noise generated in a vehicle body due to sound reproduced from the speaker. →*

**INVENTION\_ADVANTAGE**

*Thus, there is a need to develop a process for preparation of droxidopa, which avoids the synthetic process involving chiral resolution to obtain desired L-threo isomer, thereby making the process of the present invention simple, efficient, cost-effective and industrially feasible process. →*

**INVENTION\_ADVANTAGE**

3. Sentences describe the advantage of a possible configuration of the invention (the second sentence below) :

*According to this configuration, the hinge pillar 5 is located at the front corner 100c of the vehicle cabin 100.*

**→ FIGURE DESCRIPTION**

*Thus, the joining of the speaker box 10 to the hinge pillar 5 allows for arrangement of the speaker at the front corner 100c, and efficient transmission of the sound generated by the speaker toward the vehicle cabin. →*

**INVENTION\_ADVANTAGE**



## INVENTION\_PROBLEM

Similarly, if a sentence highlights a drawback or problem that the invention may pose, it should be annotated as INVENTION\_PROBLEM and not EMBODIMENT.

### Examples :

1. Dans l'exemple ci-dessous, la dernière phrase met en avant des problèmes et le contexte (les 2 premières phrases ) nous permet de voir qu'on parle d'un exemple de l'invention. Cette dernière phrase est ainsi annotée comme INVENTION\_PROBLEM :

*As illustrated in Fig. 10, a possible embodiment for achieving the required structure, wherein the thickness  $T$  of the plate 120 depends on the viewing angle, is to construct a wedged substrate 20', wherein the two major surfaces are not parallel. →*

**FIGURE DESCRIPTION**

*A complementary transparent wedged plate 120' is attached to the substrate, preferably by optical cementing, in such a way that the combined structure forms a complete rectangular parallelepiped, i.e., the*

two outer major surfaces of the final LOE are parallel to each other. → **FIGURE DESCRIPTION**

There are, however, some drawbacks to this method. → **JURIDICAL TEMPLATE**

First of all, the fabrication process of the wedged LOE is more complicated and cumbersome than the parallel one. → **INVENTION PROBLEM**



## FIGURE DESCRIPTION

Drawings attached to the patent application allow patent examiners to understand the subject matter to be patented. They could be : line drawings showing shapes of objects, flow charts, block diagrams, electric circuits, chemical formulas etc. The FIGURE DESCRIPTION label thus includes sentences that describe the content of these drawings. These sentences could be found in sections such as : **"brief description of the drawings"**, **"description of embodiments"** or similar.

Given that the description of the invention often refers to the figures, it can be difficult to distinguish between EMBODIMENT and FIGURE DESCRIPTION. Here are some hints :

1. A sentence summarizing the content of the drawing ;
2. Composition and structure of elements in the drawing ;
3. Interaction between elements in the drawing ( trigger words: "connected to", "attached to", releasable, etc.)
4. Sentences that direct you towards the drawing and explain its content.
5. Only the descriptions of the drawings mentioned in the "brief description of the drawings" section are taken into account; descriptions of tables or forms appearing in the body of the patent description are not included.
6. Generally, if a sentence contains terms followed by numbers, it refers to drawings; however, if such a sentence does not describe the drawing but describes the functionality of the numbered element, it is **not** considered a FIGURE DESCRIPTION.

### Cue phrase :

As shown in FIG XX / As illustrated in FIG XX / FIG. 1 is a ... /

### Examples :

1. Summarize the content of FIG.1 :

*FIG. 1 is a schematic structural diagram of an existing embedded substrate;* → **FIGURE DESCRIPTION**

2. Direct towards the drawing :

*Referring to FIG. 2, the embedded substrate includes a substrate 21 and a chip 22 embedded in the substrate 21.* → **FIGURE DESCRIPTION**

3. Interaction between elements of the embodiment :

*A chip 102 required by the embedded substrate is embedded in a substrate 101.* → **FIGURE DESCRIPTION**

*As can be seen from Figure 3, for example, in its closed position, the door 20 is received within the recess 10 of the housing base 12 and its lower face 24 lies generally flush with the lower surface 26 of the lip 14.* → **FIGURE DESCRIPTION**

4. Describe what contains the step ST11 which is illustrated in an attached flowchart :



First, the controller 30 determines whether a diagnosis menu item has been selected by the operator (step ST11). → **FIGURE DESCRIPTION**

#### Counter examples :

1. Even though "engine 11" indicates that "engine" is a claimed object and is numbered 11 in one of the attached drawings, this sentence should be annotated as EMBODIMENT and not FIGURE DESCRIPTION because there is no detailed description of this object referring to the drawings :

*The engine 11 is a driving source of the shovel PS.* → **EMBODIMENT**

2. The following sentences describe the content in a table; however, the table is not part of the drawings. Instead, this table describes the experiments demonstrating the stability of the invention (a formulation), so the content below should be annotated as EMBODIMENT :

*As an example, Table 5 shows the stability data related to INU-C8 micelles loaded with silibinin or sorafenib obtained through dynamic light scattering measurements in order to evaluate changes in the average diameter, in the PDI and in the zeta potential, and HPLC analysis to assess the drug loading and stability of the loaded drug.* → **EMBODIMENT**

*Table 5 Stability of INU-C8 micelles loaded with silibinin/sorafenib, 1 and 2 after 3 months of storage at 4 and 25 °C.* → **EMBODIMENT**

3. Even Figure 3 is mentioned in the sentence, no more details about this figure are given. Instead, we talk about how data are compared which relates to the invention :

*All the release all data obtained were compared with the diffusion profile of silibinin alone (0.25 mg), obtained using the same procedure ( Figure 3 ).* → **EMBODIMENT**



#### DEFINITION

Explanation of a term, which can be a patent-specific term or a general one. These sentences always appear in sections such as "description of embodiments", "summary" and "background".

#### Cue phrase :

- a) *hyponym is a hypernym* + explanation
- b) *XXX represents/refers to/indicates ...* + explanation

#### Examples :

1. Define a component of the invention (high-temperature pest extermination device 10), explaining what it is :

*The high-temperature pest extermination device 10 is a device for exterminating pests attached to the interior or exterior of a to-be-treated automobile C, which is a conventional automobile such as a passenger car or truck, by a high-temperature treatment.* → **DEFINITION**

2. Give the meaning of the term "selective" in a specific usage ( when modifying an action, movement, configuration, or other activity of one or more components or characteristics of an apparatus)

*As used herein, the terms "selective" and "selectively," when modifying an action, movement, configuration, or other activity of one or more components or characteristics of an apparatus, mean that the specific action, movement, configuration, or other activity is a direct or indirect result of user manipulation of an aspect of, or one or more components of, the apparatus.* → **DEFINITION**

3. Define "curcumin" :

*Curcumin is a yellow polyphenol (diferuloylmethane) extracted from the rhizome of Curcuma Longa, an Asian plant used both in the culinary industry and in medicine for its curative properties in biliary diseases*

and in some inflammatory conditions. → **DEFINITION**

4. Define “cofactor” in the context of this patent :

*As used herein, the term "cofactor" refers to a non-protein compound that operates in combination with a ketoreductase enzyme.* → **DEFINITION**

5. Define “radial” in the context of this patent :

*The term "radial" is understood broadly within the scope of the present invention so that it not only refers to a circular brush head or circular supporting frame but may refer to a brush head and/or supporting frame having a triangular, quadratic, hexagonal, octahedral cross-section seen from the top to the bottom (i.e. along the first axis).* → **DEFINITION**

#### Counter examples :

1. “first axis” is not a term even though it match the pattern “XXX is a XXX” :

*The first axis is therefore a rotation axis defined by the housing of the body care device.*

2. “T” is not a term, even though it match the pattern “XXX indicates” :

*T indicates the attenuation of the radiation X by the fat tissues.*

3. The sentence doesn't explain “pneumatic spinning machine” but give its possible variants, so it should be annotated as EMBODIMENT :

*The pneumatic spinning machine 150 is, for example, an air jet spinning machine or an open-end spinning machine.* → **EMBODIMENT**



#### REPHRASED CLAIM

A patent claim defines the boundaries of an invention, and therefore lays down what the patent does and does not cover. Claims are gathered in an independent section “Claims” in a patent application. Meanwhile, patent rules require that each word in the claims has an antecedent basis in the patent application, which means if a certain word appear in claims, it needs to be repeated in another area of the description.

In the description, the claims are often rephrased. They always appear in the “summary” section and can be identified **by referring to the original claims**, especially the independent ones.

To determinate if a sentence belongs to a REPHRASED CLAIM :

- a) observe if the sentence contains a claim or a part of a claim;
- b) remove the part that corresponds exactly to a / a part of a claim, then examine if the remaining part brings some additional informations about the invention. If not, the sentence should be annotated as REPHRASED CLAIM;
- c) otherwise, choose a label according to the category to which the additional information belongs.

**Cue phrase :** According to a XXX aspect / In an aspect described herein... / The system comprise...

#### Examples :

1. The yellow part correspond to a claim (see original claim below) while the black part does not bring additional information, should be annotated as REPHRASED CLAIM :

*A harness system for a power drive unit is disclosed. In various embodiments, the harness system includes an electrical cable having a first end and a second end, a plurality of cover members positioned along a*

length of the cable and a spring member positioned adjacent the plurality of cover members along the length of the cable. → **REPHRASED CLAIM**

*Claim : 1. A harness system for a power drive unit, comprising: an electrical cable (580) having a first end and a second end; a plurality of cover members (581) positioned along a length of the electrical cable; and a spring member (582) positioned adjacent the plurality of cover members along the length of the electrical cable.*

*In various embodiments, at least one of the plurality of cover members includes a first aperture for receiving the cable and a second aperture for receiving the spring member. → **REPHRASED CLAIM***

*Claim : 5. The harness system of claim 2, wherein at least one of the plurality of cover members includes a first aperture for receiving the electrical cable and a second aperture for receiving the spring member.*

#### Counter examples :

1. Apart from original claim, the sentence also contains informations relates to the functionality of the invention, should be annotated as embodiment :

*In particular, the present invention relates to formulations for topical ophthalmic use comprising cationic macromolecules consisting of calix[4]arene derivatives functionalized with alkoxyamines, including choline, to obtain new carriers of general formula (A) wherein:  $R = CH_3$ ,  $(CH_2)_XCH_3$ ,  $(CH_2)_XOHR$   $R = CH_3$ ,  $(CH_2)_XCH_3$ ,  $(CH_2)_XOH$  Wherein  $x = 1-3$   $n = 4, 6, 8$   $m = 2-15$  and wherein when  $R = R_1 = CH_3$   $m$  is different from 2 - 9 which, in addition to delivering known active ingredients, are also provided with their own bioactivity which may potentiate that of the active ingredient. → **EMBODIMENT***

*Claim : 1. Calixarene derivatives or calixarene based nanostructured systems of formula (A): wherein:  $R = CH_3$ ,  $(CH_2)_XCH_3$ ,  $(CH_2)_XOHR$   $R = CH_3$ ,  $(CH_2)_XCH_3$ ,  $(CH_2)_XOH$  wherein  $x = 1-3$   $n = 4, 6, 8$   $m = 2-15$  and wherein when  $R = R_1 = CH_3$   $m$  is different from 2 - 9.*



#### JURIDICAL TEMPLATE

General patent set phrases which can be found in every patent but in different forms. For example, sentences to connect the different sections of the application, to limit the usage of a certain non-technical terms.

#### Examples :

1. To describe technical solutions in this application more clearly, the following briefly describes the accompanying drawings that need to be used in the embodiments.
2. Obviously, for persons of ordinary skill in the art, other drawings may be obtained according to these accompanying drawings without creative efforts.
3. The foregoing implementations of the present invention do not constitute a limitation on the protection scope of the present invention.
4. It will also be understood that, although the terms first, second, etc. may be used herein to describe various elements, these elements should not be limited by these terms.
5. The sentence could be used in another patent if the yellow part is replaced by another element :  
*This problem is solved by a process for the preparation of Droxidopa as outlined in the annexed claims, whose definitions are integral part of the present description. → **JURIDICAL TEMPLATE***



## TECHNICAL TEMPLATE

The sentence serves for indicating the exhaustive usage of a technical term (e.g. : a vehicle is a bike or a car), which is different from a definition which gives an explanation often by means of a hypernym (e.g. : a bike is a vehicle )

### Two main cases :

A) Main verb / sentences are used for giving a list of (or one) hyponym(s) of a technical term of the invention

### Examples :

1. Give a list of terms relate to "heat sources" :

*Example heat sources include, but are not limited to, an engine, a generator, an electronic device, an electronic component, wires carrying electrical current, fiber optics, an electrical circuit board, a communications device, a battery, a capacitor, a control moment gyroscope, etc.*

2. Give a list of possible first and the second plastic material :

*The first and the second plastic material may also be selected from a third group comprising a High Density Polyethylene, Low Density Polyethylene, Polyethylene, Terephthalate, Polyvinyl Chloride, Polycarbonate, Polypropylene, Polystyrene, Fluorine Treated, Post Consumer Resin, K-Resin, Bio-plastic, or combinations thereof.*

B) Numerical values for a technical term are generalised

### Example :

1. *Other angles and ranges of angles are possible and are within the scope of the present disclosure.*

### Counter example :

1. There is no technical term in the following sentence; however, it broadly defines the word "about." :

*In many instances, the terms "about" may include numbers that are rounded to the nearest significant figure.*

→ **DEFINITION**



## OTHER

Sentences belong to none of the above categories or ambiguous sentences.

## OVERLAP

As a general rule, the label should be chosen based on the main purpose of the sentence. In the following sentence, although "It is an objective of the present disclosure to ..." may resemble a template sentence, the primary intention of the sentence is to demonstrate the advantage that the invention may bring, so it should be annotated as INVENTION\_ADVANTAGE. :

*It is an objective of the present disclosure to provide a structure for disposing a speaker in a vehicle, while achieving both an improvement in the reproduction efficiency of the speaker and a reduction in the noise generated in a vehicle body due to sound reproduced from the speaker.*

In the case where different ideas are shared within the same sentence:

1. REFERENCE\_ADVANTAGE, REFERENCE\_PROBLEM takes priority over REFERENCE
2. INVENTION\_ADVANTAGE, INVENTION\_PROBLEM takes priority over EMBODIMENT
3. DEFINITION takes priority over other labels, meaning if a definition is present in a sentence, it should be annotated as DEFINITION.
4. TECHNICAL TEMPLATE takes priority over EMBODIMENT
5. In other difficult decision-making cases, annotate the sentence as OTHER and note the labels that may be relevant.

## REFERENCES

EPO : <https://www.epo.org/law-practice/legal-texts/html/epc/2020/e/r42.html>

USPTO : <https://www.uspto.gov/patents/basics/types-patent-applications/nonprovisional-utility-patent#heading-9>

CNIPA : [https://www.cnipa.gov.cn/art/2009/9/1/art\\_2147\\_152047.html](https://www.cnipa.gov.cn/art/2009/9/1/art_2147_152047.html)

## ANNEX

### ANNEXE 1 DISTRIBUTION OF DIFFERENT TYPE OF SENTENCES IN EACH SECTION OF THE DESCRIPTION

	FIELD OF INVENTION	BACKGROUND	SUMMARY	DESCRIPTION OF DRAWINGS	DETAILED DESCRIPTION OF THE INVENTION
PATENT TITLE					
SECTION TITLE	X	X	X	X	X
SECTION SUBTITLE	X	X	X	X	X
TECHNICAL FIELD	X				
REFERENCE		X			
FIGURE DESCRIPTION				X	X
EMBODIMENT			X		X
REFERENCE_ADVANTAGE		X			X
REFERENCE_PROBLEM		X			X
INVENTION_ADVANTAGE			X		X
INVENTION_PROBLEM			X		
DEFINITION		X	X		X
REPHRASED CLAIM			X		
JURIDICAL TEMPLATE		X	X	X	X
TECHNICAL TEMPLATE					X
OTHER					